NOVA IMS Information Management School

MGI

Master Degree Program in

Information Management with specialization in Information systems and technologies management

Supporting the Center of Excellence at a multinational alarm company

Oracle Cloud ERP

Guilherme Marques Duarte

Project Work

presented as partial requirement for obtaining the Master Degree Program in Information Management

NOVA Information Management School
Instituto Superior de Estatística e Gestão de Informação
Universidade Nova de Lisboa

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SUPPORTING THE CENTER OF EXCELLENCE AT A MULTINATIONAL ALARM COMPANY

By

Guilherme Marques Duarte

Project Work presented as partial requirement for obtaining the Master's degree in Information Management, with specialization in Information Systems and Technologies Management.

Supervisor: *Professor Doctor Vítor Manuel Pereira Duarte dos Santos*

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STATEMENT OF INTEGRITY

I hereby declare having conducted this academic work with integrity. I confirm that I have not used plagiarism or any form of undue use of information or falsification of results along the process leading to its elaboration. I further declare that I have fully acknowledge the Rules of Conduct and Code of Honor from the NOVA Information Management School.

Guilherme Duarte

Lisbon, November of 2023

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Abstract

Security has always been a basic condition for Man, for several reasons.

Firstly, it is essential to protect the life and physical integrity of individuals. This means the safety of family, home, work and the surrounding environment.

The need for protection is often understood as the preservation of Heritage, which includes the protection of essential properties, assets and infrastructure. This includes homes, businesses, public institutions and critical facilities such as hospitals, among others.

A safe environment promotes people's trust in the community and institutions, contributing to a greater sense of well-being and quality of life. Security is a crucial factor for economic growth. Companies and investors are more likely to establish themselves and invest in places where they feel safe.

In short, investing in security is fundamental to the well-being, stability and progress of society as a whole. It is an essential component for the harmonious and sustainable functioning of local, national and global communities.

Security and information systems play a crucial role in efficiently designing internal processes and meeting customer demands. Customized solutions are increasingly adopted to meet individual preferences while keeping technology up to date. Information systems are used to record and manage customer needs, optimize and innovate security systems production processes that meet customer needs. To optimize systems for responding to customer requests, it is necessary to maintain information systems that facilitate effective communication between departments.

A variety of business processes can be combined, defined, and connected by using an ERP system.

ERP systems avoid data duplication and ensure data integrity with a single source of data by gathering an organization's shared transaction data from multiple databases.

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LIST OF ABREVIATIONS

AI	Artificial Intelligence
ALM	Application lifecycle management
ARC	Alarm Receiving Center
BI	Business Intelligence
COE	Center Of Excellence
ERP	Enterprise Resource Planning
GL	General Ledger
GPO	Global Process owner
HR	Human Resources
IFRS	International Financing Reporting Standards
IS	Information Systems
IT	Information Technology
OTBI	Oracle transaction Business Intelligence
ROI	Return on Investment
SAAS	Software as a Service

1 Introduction

The last assignment for my master's in information management at the Nova Information Management School is this work project, which is similar to a master dissertation/thesis. The work project was done at the finance department in a alarm company and it refers to the period between 12 September 2022 to 12 March 2023.

The company I was working in is a alarm security company. The company business is focused on homes and small businesses. The company business works when a robbery is happening and the alarm goes off or if the customer decides to activate the alarm. With this, the Alarm Receiving Centre (ARC) department receives a notification as soon as your house alarm goes off. They have access to live images of the incident and contact the householder or instantly decide to send help, contacting the emergency line.

There isn't much competition in this market, at least in Portugal, with it being a monopoly, due to the fact that only 3 companies operate in the country.

My role as a group oracle cloud erp intern in the company's project is to support the growing Center of Excellence (CoE) servicing all the company operations across 17 countries around the world, mostly by supporting on control of tickets management, analysis and resolution related to the ERP support model, coordinating workflow with 1st (functional team) and 2nd (technical resolution team) support levels with managing of Finance group policy, among some other tasks. By working in this project I was able to gain practical expertise in the many working areas of IT, mostly on the ERP area.

1.1 Academic Context

This work project was made as part of my final project in my master's in information management with specialization in information systems and technologies management. This master's is focused at professionals who work in the Information Systems (IS) area, mainly managers and specialists in IT auditing, quality control, and strategic management of IS. The company information must be easily understandable and should try to boost innovation and enhance the process efficiency, being that also one of the main goals of a ERP software. This master's program promotes strategic thinking in the role of information systems in developing management strategies and information sharing that can increase the competitiveness of organizations and efficiency of the employees. At the same time, the program holds a lot of practical classes with computer technology and at the same time numerous group projects promoting the teamwork. The course was composed by mandatory and elective subjects, being all of the following completed: Architectures for Information Systems; Business Process Management; Data Management and Storage; Data Privacy, Security and Ethics; Digital Transformation; Information Project Management; Information Systems Development; Information Systems Governance; Information Technologies Services Management; Management of Information Systems; Research Methodologies; Search Engine Optimization; Digital Marketing and E-commerce.

1.2 Organizational Context

The project executed in an alarm security company. The company is the Europe's leading provider of monitored security solutions at homes and small businesses. Its business is to protect the houses and small businesses, by giving an immediate human response using innovative technology, so they need to keep up to date all the latest technology. The company currently serves 4.5 million customers in 17 countries worldwide.

The company uses motion sensor alarms which is considered to be the best way to protect the perimeter of a house. At the same time, we use Wireless alarm systems that can be installed in places where wired alarm systems cannot be accommodated, making them much easier and quicker to deploy and affordable. Every time the connection of the wireless alarm is “cutted” or an emergency button is pressed, the Alarm Receiving Centre (ARC), receives a notification, having access to live images of the incident and contact the householder or instantly decide to send help, contacting the emergency line.

All of the company departments have got a young, dynamic and international work environment, being English, French, Portuguese and Spanish languages that are being spoken all the time. The company is also led by clear values, which are: **Passionate** in everything we do, always **innovating**, **committed** to making a difference, winning as a **team** and **trust** and **responsibility**.

1.3 Objectives

The goal of the project was to perform some critical tasks to support the growing Center of Excellence (CoE) servicing all the company operations across 17 countries around the world.

The main tasks performed were:

- CoE structure support on control of tickets management, analysis and resolution related to the ERP support model, coordinating workflow with 1st (functional team) and 2nd (technical resolution team) support levels with managing of Finance GPO.
- ERP process monitorization and distribute project CoE administrative reports.
- Provide in-depth Oracle ERP cloud functional knowledge to support best practices application, changes, updates and releases.
- Gap and analysis with key stakeholders and process owners.
- Support on integration enhancements between Oracle ERP Cloud and other legacy systems.
- Conduct functional training and provide business process documentation to stakeholders, validators and end users considering the approved Blueprints.
- Configuration of ERP Cloud Finance modules, design custom dashboards and BI reports.

In addition to all of this tasks, I was constantly in trainings performed by my manager and coworkers, and oracle university online courses, which lead to my development and increase of knowledge of oracle ERP. Lastly 2 big projects were done by my team, the report clean-up project and the IFRS16 project.

2 Theoretical Framework

2.1 Enterprise Resource Planning

2.1.1 Concepts

The enterprise resource planning (ERP) is a platform that companies use to manage and integrate the essential parts of their businesses.

Numerous ERP software applications are critical to companies because they support them applying resource planning by incorporating all the processes demanded to run their companies with a single system.” companies have to primarily respond by being cost competitive and, more essentially, reengineer their business processes.” (Garg & Venkitakrishnan, 2011).

ERP is a type of software that helps businesses manage and automate various core processes, such as finance, accounting, procurement, human resources, and supply chain management. It integrates different functions and departments into a single, unified system, providing real-time visibility and data accessibility, streamlining workflows, and reducing manual errors and inefficiencies.

The objective of ERP is to simplify business processes, allowing users and all departments of the company, to communicate and share information in an easier way and in real time increasing the collaboration between each other, allowing for the smooth and efficient flow of information and data across the entire organization, and with this increasing the productivity and efficiency.

“The core aspect of process orientation in business and implementation of these aspects to achieve competitive advantage can be realized only be accepting the concept of Enterprise Resource Planning (ERP).” (Garg & Venkitakrishnan, 2011)

An ERP system provides real-time visibility and accessibility of important data and information, streamlining workflows and reducing manual errors and inefficiencies. This allows for better decision making, improved operational efficiency, and increased productivity. In addition, ERP also helps with managing resources, tracking progress, and monitoring performance, enabling organizations to better allocate resources, meet deadlines, and achieve their goals.

ERP systems are typically implemented by large organizations but can also be scaled down for smaller businesses.

Choosing the right ERP solution requires careful consideration of the specific needs and goals of the organization, as well as the industry in which it operates. "ERP implementation requires an understanding of the complexity and interdependencies of the business processes that the ERP system will affect." (A. Nah).

2.1.2 Architectures & Types

All of a company's primary business operations are combined into a single, unified system by the ERP system, which incorporates all of the company departments.

Data from each of these operations is gathered by the ERP system, which then saves it in a centralized database to enable real-time visibility and accessibility of information throughout the whole organization. Many of the manual operations involved in these procedures are also automated by the ERP system, lowering errors and inefficiencies.

Workflows are streamlined, enabling activities to run more smoothly and effectively. The ERP system also offers a number of tools and reports that help businesses track and analyse their operations, come to wise decisions, and promote growth and success.

Because the ERP system enables other enterprise modules of your business to operate from a single database, it differs from an individualized system.

The system gathers information from several departments of the company. The information is put in a central location where it may be accessed by staff members who require it.

In the ERP system, each user has their own profile, with different types of access. It eliminates the silos that plague many firms and makes sure that only people who require information have access to it.

Consider that the ERP system at your business is virtually entirely automated, ERP enters your data for you in the background and shares it with other units that require it.

Types of ERP

Regarding the types of ERP that exist, the company should choose the one that best suits them taking in consideration some facts, like the size of the business, the industry or the where the ERP is based.

Firstly, the company needs to identify how big is their business, because the ideal ERP will differ depending on the size of the company.

Small Business ERP is a software package intended primarily for small and medium-sized organizations. For managing numerous business activities, such as finance, supply chain management, project management, and more, these systems offer a complete set of capabilities.

The small business ERPs are often more economical and simpler to implement than bigger ERP systems, making them an excellent fit for smaller organizations. They may develop over time with the business because they are also more scalable and versatile. ERP solutions for small businesses often offer a single, consolidated view of all corporate data, facilitating better visibility and decision-making. They also

automate a lot of manual procedures, which lowers errors and boosts productivity. The top ERP systems for small businesses are Oracle Netsuite, Sage, and Acumatica.

Mid-size Business ERP is a software solution built specially for these companies. Although they are not yet at the size of larger corporations, these organizations often have more intricate business procedures and greater activities than small businesses. An example of ERP that is used in mid-size companies are Microsoft Dynamics 365 Business Central, Oracle JD Edwards, and Oracle NetSuite. “The implementation of ERP systems in Small and Medium Enterprises can result in improved project planning practices and increased competitiveness in the marketplace.” (Tasevska et al., 2014)

Lastly the large business ERP is usually used by big companies, to meet the needs of large businesses, including their enormous data volumes, intricate workflows, and regulatory constraints. They often give all company data a unified, integrated perspective, facilitating better visibility and decision-making.

ERP systems for large businesses are frequently extremely adaptable, enabling firms to modify the system to suit their unique needs. They may grow and change over time with the business because they are also very scalable. With this said the system facilitates the decision making in the most complex tasks of the business. The most used ERP in large companies are SAP and Oracle Cloud.

Secondly, after considering the size of the company, next step is taking into account the industry that is associated with the organization. With this said, there are two types of ERP, the generic and the industry-specific ERP.

For organizations in various industries, generic enterprise resource planning software offers a broad variety of functions. This ERP system is not specific to a certain industry or business type, and instead, these systems provide a common set of capabilities and features that may be utilized by numerous businesses and sectors.

Generic systems typically provide solid accounting and financial management tools, but they rarely provide many operational features. For niche businesses, companies with standard operations, and companies that operate efficiently with a generalized strategy, a generic ERP works excellent as the first solution. They frequently cost less than industry-specific ERP systems as well.

On the other hand, the industry-specific ERP, also called “Vertical ERP”, are designed for a certain industry, such as professional services or distribution. They offer fundamental tools and modules in addition to characteristics specific to their sector that a generic ERP cannot offer.

Industry-specific ERP systems offer capabilities and resources to finish tasks particular to those industries. You could need to integrate a third-party product or create one from scratch to carry out the same activities using a generic solution.

Large and mid-sized businesses frequently create custom software that is designed around all of their needs and business processes. Smaller businesses may also invest in custom ERP systems if their procedures are unusual or unconventional.

For example, the top manufacturing ERP programs include QAD and Microsoft Dynamics, while on the distribution sector is normally used the oracle NetSuite.

Thirdly, the most important aspect of the ERP, is where it is based. There are three possibilities: cloud-based, on-premises or hybrid.

Cloud-based ERP is a system that is hosted and provided through the internet rather than being installed on local servers or personal PCs. It is known as a software as a service (SaaS) solution The ERP provider manages all of the software, hardware, and infrastructure in a cloud-based ERP system. This eliminates the necessity for businesses to maintain their own IT infrastructure and makes it simpler for anyone with an internet connection to access the ERP system from anywhere.

In comparison to an on-premises system, a cloud-based ERP is less expensive, and the long-term price is easier to predict in advance. Cloud software is typically accessible for a monthly or annual subscription price, as well as costs for upgrades, support, and training. Due to the reasonable upfront cost, this is typically a viable option for small enterprises. Furthermore, putting in place a cloud ERP system typically takes less time than putting in place an on-premises ERP. Another advantage is that since the vendor manages the ERP, you won't need to engage IT specialists to maintain the system. On the other side, it also means that you have limited possibilities for customization and limited control over the system. Due to security concerns, many people are hesitant to use cloud-based ERPs because the vendor is in charge of maintaining data protection, so its advised to choose a respected and well-known provider that has a high data security standards.

On-premises ERP refers to an ERP system that is installed and run on an organization's local servers or personal computers rather than being hosted and distributed over the internet.

The cost of an on-premises ERP system is dependent on the number of users and the size of the business. Given that the business covers the entire cost of the one-time perpetual license up front, it is regarded as an investment. You will nevertheless need to make payments to train employees, support, and updates, so the organization is in charge of administering all software, hardware, and infrastructure. ERP systems that are installed on-site might provide several advantages, including better security, more data control, and better system integration. However, because the company must spend money on and maintain its own IT infrastructure, these solutions also have higher expenses.

Hybrid ERP refers to an ERP system that incorporates components of on-premises and cloud-based ERP solutions. In this system, some functionalities are installed and run on local servers or company computers, while others are hosted and distributed via the internet. This achieves a balance between the advantages of on-premises ERP solutions and cloud-based ERP solutions. For instance, mission-critical business operations that demand a high level of security and control might be carried out on-premises,

whilst less crucial operations might be carried out on the cloud. Employing this strategy enables firms to select the solution that best fits each process while also maximizing the benefits of both.

Table 1- Different erp solutions – source: (Mandziuk, 2023)

COMPANY SIZE	CUSTOM DEVELOPMENT	READY-MADE	CLOUD-BASED	ON-PREMISES	GENERIC	INDUSTRY-SPECIFIC
Small	In-house or outstaffing	Sage Business Cloud, Oracle Netsuite, Acumatica General Business Edition	Oracle Netsuite, Acumatica Cloud ERP, Infor CloudSuite	Microsoft Dynamics GP	Epicor ERP, Infor ERP	QAD, Sage Intacct
Midsize	In-house or outstaffing	Oracle Netsuite, Microsoft Dynamics 365 Business Central, Oracle JD Edwards	Oracle Netsuite	Microsoft Dynamics GP	SAP Business One	SYSPRO ERP, Microsoft Dynamics
Enterprise	In-house or outstaffing	SAP ERP, SAP S/4HANA	Oracle ERP Cloud	SAP ERP	SAP ERP	Microsoft Dynamics

2.2 Advantages and disadvantages of using ERP

With all the information available for the companies to make a decision, the ERP brings some advantages and disadvantages.

The ERP “gives the power to the right person to make decision at the right time. This is only possible when the entire organization shares the same information and views it in the same perspective.” (Garg & Venkitakrishnan, 2011) “The tangible benefits include the increase in operating income, labour costs, material costs, and inventory reduction. The intangible benefits include the correct and complete information collection, the automation and transparency of production site, the rapid response to customer needs, the improvement of customer satisfaction, and thus the creation of the new business models and thinking.” (Shaio Yan Huang, 2019) Some examples of advantages of ERP are:

- ERP systems offer a consolidated data repository, limiting the chance of information duplication and errors and improving data accuracy.
- Real-time visibility: ERP systems give users immediate access to information about the operations and financial condition of their organizations.
- Increased automation: By automating manual operations, ERP systems lower the possibility of errors and provide staff more time to work on tasks with higher value.
- Better scalability: ERP systems are scalable, enabling businesses to adapt to expansion and changing business requirements.

It is proven that “Lack of integration affects other flows like men, machines and money.” (Garg & Venkitakrishnan, 2011). ERP systems aim to centralize and integrate information and processes across the entire organization; therefore, a lack of integration can negatively impact the system's functioning. There are a number of detrimental outcomes that might arise from improper integration of various modules and functions:

- Data redundancy: In the absence of integration, several system components require human data entry. This may result in inconsistent and redundant data, which would reduce the accuracy of the information.
- Lack of visibility and real-time access: With integration, all authorized users can get updated information instantly. Without it, information could be out-of-date or unavailable, which makes it challenging to arrive at wise conclusions.
- Manual and inefficient processes: The absence of integration necessitates manual process management, which is more labour-intensive and error prone. Delays and inefficiencies in operations may arise from this.
- Difficulty in coordination between departments: Integration makes it easier for departments to collaborate and coordinate with one another. Without it, departments might function independently, which would prevent coordination and communication.
- Difficulty in generating reports and analysis: Integration makes it possible to combine data for thorough reporting and analysis. It can be difficult to get a thorough and accurate picture of the organization's performance without it.

- Business process automation Difficulty: Integration is necessary for efficient business process automation. Without it, manual labour is required for tasks that ought to be automated.

In conclusion, integration is a crucial part of an ERP system's successful operation. It makes sure that information moves between the system's various components smoothly and effectively, which enhances operational effectiveness and informed decision-making.

“Many ERP implementations have been classified as failures because they did not achieve predetermined corporate goals”. (Elisabeth J Umble, Enterprise resource planning: Implementation procedures and critical success factors, 2003) This happens, because of:

- Misalignment with business objectives: The ERP system may not deliver the anticipated benefits if it has not been appropriately configured to meet the unique needs and objectives of the business.
- Lack of user involvement and training: Insufficient use of the system may be caused by inadequate user training and a lack of team engagement in the ERP implementation.
- Poorly defined project scope or excessively customized system: Difficulties in Implementing and maintaining the ERP may arise from unclear project scope or overly customized, overly complex system.
- Project management failure: Inadequate supervision, arbitrary deadlines, or insufficient funding are some examples of poor project management that can cause delays and extra expenses.
- Resistance to change: If members of the team are unwilling to embrace the new system, it could block the process and prevent the anticipated advantages from materializing.
- Lack of communication and information sharing: Inadequate communication or a lack of sharing of crucial information amongst teams implementing ERPs can lead to problems with system configuration and operation.
- Failure of continuous monitoring and evaluation: Issues may not be resolved quickly if the organization does not keep a close eye on the ERP's performance and make adjustments as needed.

3 Tools and Methodologies

3.1 Tools

To perform all the tasks given to me, that were mentioned in the objectives, I had to understand and learn from zero some very important tools, being them the oracle cloud ERP software, the Jira and confluence.

The most used software was Oracle cloud ERP. “Cloud based ERP system architecture provides solutions to all the difficulties encountered by conventional ERP systems” (Navaneethakrishnan, 2013).

Oracle Cloud ERP is a complete enterprise resource planning (ERP) solution that offers a number of modules to assist firms in managing essential business activities. These modules are created to give businesses a consolidated, integrated picture of all company activities, empowering them to restructure operations, boost productivity, and make data-driven decisions.

Oracle Cloud ERP incorporates a variety of important modules, including:

- Financial Management: This module offers resources for regulating financial operations like accounting, financial reporting, and tax administration.
- Procurement: This module assists companies in managing the procurement process, which includes making purchases of goods and services and maintaining connections with suppliers.
- Human Resource Management: This module offers resources for controlling HR procedures like hiring, paying employees, and handling benefits.
- Order management, inventory management, shipping, and receiving are just a few of the processes that are managed in the supply chain processes module.
- Customer relationship management tools are provided in this module, including lead and opportunity management, customer data management, and sales forecasting.

Each of these modules is created to give organizations the resources and skills they require to promote development and success. Oracle Cloud ERP offers the capabilities and tools needed to succeed, whether in procurement, human resources (HR) and supply chain operations, or streamline financial processes. In my project the most used modules are from finance and procurement.

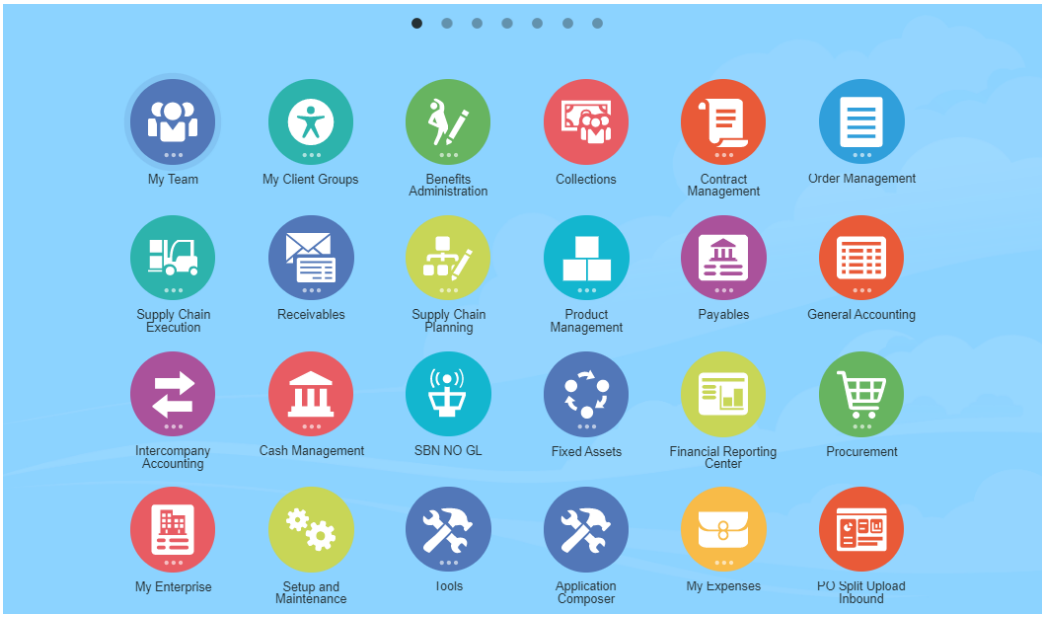

Figure 1-Home page from oracle cloud software- source: prepared by the author

Another powerful tool used a lot, was a software called "Panaya". The software provider Panaya specializes in offering continuous delivery and application lifecycle management (ALM) solutions. It provides a cloud-based platform that aids enterprises in streamlining and improving the distribution of enterprise applications.

Panaya has a change intelligence feature where *ERP Managers and CRM Admins see the potential change reaction of every upgrade, update or added feature. They know exactly what might break, what to fix and what to test* (Panaya, 2023)

Panaya assists businesses in performing extensive testing, evaluating the effects of changes on their applications, and gaining visibility into the entire process through automation and analytics. This makes it possible to offer software updates, patches, and enhancements more quickly and effectively, thus enhancing overall business agility and customer happiness. This tool is particularly good for ERP systems like SAP, Oracle cloud, Salesforce, and others. This is because:

- Test automation: Panaya provides ERP system automated testing solutions. As a result, testing procedures take less time and effort, leading to deployments that go more smoothly and trustworthy.
- Risk mitigation: Before making adjustments or updates to the ERP system, it offers tools for risk assessment and impact analysis that assist in spotting possible problems. By doing this, the chance of important business operations being disrupted is reduced.
- Change impact analysis: Users of Panaya can examine how suggested modifications would affect the ERP system. This can help in comprehending how various modules and functionalities will be impacted by modifications.

- Regression Testing: It makes automated regression testing possible, which guarantees that after changes are made to the ERP system, the functionalities that are already in place continue to function as intended.
- Visibility and reporting: Stakeholders can monitor changes, track progress, and generate reports for compliance and auditing needs with Panaya's comprehensive visibility into the ERP change process.
- Collaboration and Communication: The platform makes it easier for team members working on ERP projects to collaborate. It offers tools to share knowledge, assigning tasks, and facilitating communication.
- Reduced Downtime: Panaya minimizes interruptions during ERP system updates or migrations by optimizing the testing and deployment process.
- Cloud-Based Platform: Because Panaya is a cloud-based platform, teams working on ERP projects can benefit from its scalability, accessibility, and user-friendliness.
- Data Security and Compliance: Sensitive ERP data is protected because Panaya complies with industry-standard security protocols and compliance requirements.

It's crucial to remember that the efficiency of Panaya, or any other ERP management platform, may differ based on the particular requirements of the organization and the ERP system being used.

The other two tools that I used were “Confluence” and “Jira”. Both were created by Atlassian and are two project management and collaboration systems, but they have different uses.

“Confluence is a team workspace where knowledge and collaboration meet.” (atlassian, 2023). Confluence is a platform that facilitates team organization, sharing, and collaboration on projects and ideas.

Teams can develop, manage, and share information and material there, including documents, spreadsheets, and presentations. Confluence makes it simple for teams to collaborate on projects by providing real-time commenting and collaboration features.

Jira, on the other hand, was created specifically for teams working on software development. It provides a complete management and tracking system for software development projects, encompassing software planning, development, and release.

Some of the advantages of Jira are:

- Issue tracking: Jira is a great instrument to manage and track tasks, issues, and projects. It gives teams a central location to arrange their work.
- Customizable workflows: Teams can create and modify workflows using Jira to fit their unique processes and methods, giving them flexibility in how work is managed.
- Agile Project Management: Agile methodologies, such as sprint planning, backlog management, velocity tracking, Scrum and Kanban boards, are well supported by it.

- Real-Time collaboration: The ability for teams to work together in real-time facilitates the updating of tasks, delegation of responsibilities, and communication of progress.
- Integration with other tools: Teams can connect Jira's work with other crucial software by integrating it completely with a variety of third-party tools and applications.
- The solid reports and dashboards: Teams can obtain insights into their projects and performance with the help of this powerful reporting tool, which offers a range of reporting options, including customizable dashboards, charts, and filters.
- Custom fields and data capture: To ensure that pertinent data is recorded, teams can define custom fields to capture particular information about their projects or issues.
- Access control and permissions: Managers can establish specific permissions with Jira to guarantee that only authorized users can access sensitive data and features.
- Scalability: Jira works well for a variety of organizations due to its ability to scale to meet the demands of both small teams and large enterprises.
- User-friendly and intuitive interface: Jira's user-friendly interface makes it simple for team members to navigate and make efficient use of the platform.

In conclusion, Jira is used for project and problem tracking in software development, whereas Confluence is utilized for content collaboration and knowledge management. Together, these two technologies can assist the entire software development lifecycle because they are complementary to one another.

3.2 Project plan

I was interested in doing this project with a company from the minute I first learned about it. It was a prosperous and expanding business company, and an international group that thrives day by day.

The offered position was Group Oracle Cloud ERP intern and It would help me to get to know various areas of the business inside of the company.

After two interviews, a full-time internship contract had been agreed with a duration of six months from 12 September 2022 until 12 March 2023, followed by an option to renew to a no-term contract with a 40h/week, no-end term contract if expectations were met during the internship period.

I received a nice welcome from the company. Every person that entered the company had a "get2know" lunch, which are intended to introduce new coworkers from various departments.

In addition to the welcome lunch, the company had an “onboarding program” where for 2/3 weeks, the new employee would go to every department of the company, to get to know the employees and their roles inside the company and their department purposes.

It is also in this moment, where the employees get to know the mission, values and organogram of the company.

The company decided that I should start things off with some oracle cloud trainings, watching videos in oracle university, and having trainings as a team, to get familiarized with the software and doing some exercises.

These were my main tasks on the first two months. I had the opportunity to complete 4 courses in oracle cloud university, being them the “Procurement explorer”, “General ledger explorer”, “payables explorer” and “BI explorer”.

Procurement can be managed in a number of ways and it’s important to know how the different procurement features may apply to the organization. The procure-to-pay; Supplier management; negotiations; procurement contracts.

During the course, the following topics were covered (University, mylearn.oracle, 2023):

- Procurement Overview
- Understanding Self Service Procurement
- Performing Supplier Tasks in Procurement and using the Supplier Portal
- Using Supplier Qualification Management
- Using Purchase Orders
- Using Supplier Agreements
- Using Supplier Negotiations
- Using Procurement Contracts

General Ledger (GL) it is “a central repository of accounting data transferred from all your Oracle subledgers like accounts payable, accounts receivable, fixed assets, projects, et cetera. We can load data from non-Oracle applications as well. And these are the main process flows starting off with Capture Transactions, which are the journals that are coming in from your subledgers. These are imported into your ledger and posted to update the GL balances in our balances cube. And having the balances in the multi-dimensional cube allows us to do all our inquiries and reporting.” (University, mylearn.oracle.com, 2023)

During this course, the following topics were covered:

- General Ledger Overview
- Creating Journal Entries
- Inquiring, Analysing and Monitoring GL Balances
- Intercompany Transactions
- Account Reconciliation
- Accounting Period Close
- Budgets in General Ledger
- Financial Reporting

Procure to pay is an integrated solution that links purchasing and payables to maximize ROI (Return On Investment) and decrease costs of maintenance. This Learning Path covers (University, mylearn.oracle, 2023):

- Payables Overview
- Supplier Overview
- Manage Invoices Validations and Holds
- Process Supplier Payments
- Review Payables Reports

OTBI (Oracle Transaction Business Intelligence) is a reporting tool that allows you to retrieve information to perform daily business tasks. This course covered (University, mylearn.com, 2023):

- Introduction to Business Intelligence
- Using Oracle Transactional Business Intelligence
- Using Business Intelligence Publisher

With these trainings, I started supporting the activities of the CoE, monitoring the processes of the financial modules of the ERP on the Business Units that are already implemented and helping the financial GPO on the control, manage and resolution of ERP tickets.

On the 3rd and 4th month I was included in handover meetings, because the objective of the creation of my team is to replace an outsourcing team and internalize all the tasks in the company. As I also started performing actions on one team project. The report clean-up project that was concluded in the later months.

Also, during this time, the team did a five-day business trip to Madrid with all the CoE team in order to rapidly get to know who is working with. During this trip, the main goal was the presentation and discussion, of each project. In this trip I presented the project that I was working on, that I will talk about later on, the “report clean up project”.

The 5th and 6th month in the company were dedicated to the continuous development of the project itself, and in the Panaya testing as well as continuing to support in the Jira ticket solving.

4 Report Clean Up Project

The team was given a report cleanup project on November 7, 2022, which asked for a careful examination of all current reports within the Oracle Cloud platform.

This project's main goal was to identify areas that needed attention in order to optimize and simplify the system, being the objectives of this project to access the existing reports in the system, eliminate unnecessary reports, save storage space in the cloud, organize the catalogue and make it more understandable for everyone. An example is shown in Figure 2.

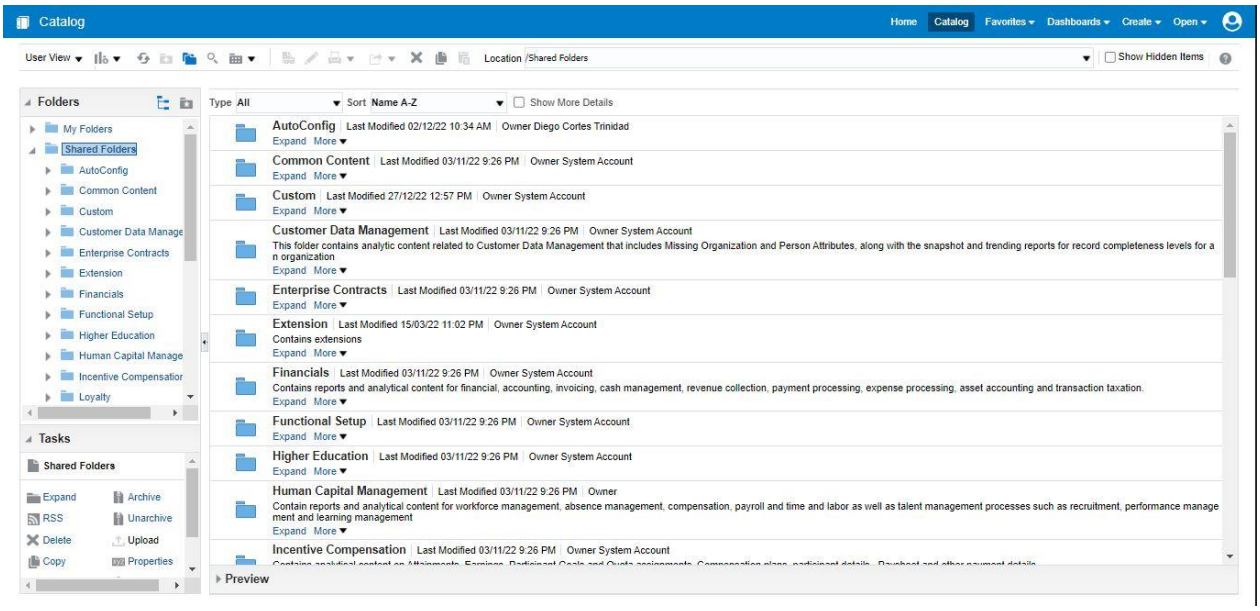

Figure 2-Example of reports to be analysed- source: prepared by the author

The team concentrated on eliminate the duplicate reports to enable quicker and more effective operations.

The project was a sizable task that necessitated a methodical approach and meticulous attention to detail. The team planned to accomplish a more effective and efficient report management system by successfully completing this work, which would increase overall performance and productivity.

The project comprises six distinct phases, each of which represents a critical milestone in the overall process.

The first phase, known as the assessment phase, involves a detailed evaluation of the existing system to identify areas that require improvement. This is followed by the plan phase, during which the team develops a comprehensive strategy and roadmap for achieving the desired outcome. In the design phase, the team creates a detailed blueprint for the new system, taking into account all necessary elements and requirements. The build phase represents the actual implementation of the new system, with the team working to bring the design to life.

Next, the team undertakes a rigorous testing process, during which they assess the functionality and performance of the new system to ensure that it meets all necessary standards. Finally, in the deploy phase, the new system is rolled out to users, with the team monitoring its performance and making any necessary adjustments along the way. By carefully managing each of these phases, the team can ensure that the project is completed successfully, on time, and within budget.

During the first phase, the assessment, the team placed particular emphasis on regular weekly meetings to gain a deep understanding of the project's objectives and the resources required to achieve them.

Following the successful completion of the assessment phase and the allocation of the required resources, the project team moved on to the second phase, known as the plan phase.

At this key phase, the team was focused on making strategic decision on the project's execution, such as choosing an appropriate test environment, determining the necessary time per resource, and establishing the duration of each phase and task of the project.

During the third phase of the project, commonly referred to as the design phase, the team was asked to carry out a comprehensive examination of the numerous reports held within the Oracle Cloud software. This required gaining access to each report, examining its details and parameters, and identifying each report's owner. The team then examined the reports that were going to be deleted after this process was finished, and took preventative actions by downloading them in case they needed to be re-uploaded in the future.

As a result of this analysis, the team identified 76 reports that needed to be deleted, 68 that required renaming, and 75 that needed to be moved to different folders. With this information in hand, the team started working on the crucial task of getting the consent of the respective owners of each report that was going to be deleted, in order for the team to proceed with the necessary steps to "clean" the system, this phase was essential to guarantee that all parties were on the same page.

The team changed its attention during the project's build phase to creating the files and documentation required so that the technical team could make the necessary adjustments to the production environment. This required carefully specifying all of the necessary adjustments, including the files that were planned for delete, renaming, or move to new folders. Also in this phase, the team coordinated the timing of the changes with the IT team in order to guarantee a smooth transition. In order to decide which "sprint" the changes would be integrated in and what procedures would need to be taken to guarantee that they were done correctly and effectively, the team worked with the IT team.

As the project progressed to the fifth phase, which is the testing phase, the team had not yet started this stage. However, the primary goal of this phase is to give IT consultants the validation file to be placed on the test environment and validate if everything is still working fine.

Lastly the sixth phase of the project is the monitorization and monthly review of the catalogue to ensure its cleanliness and creation of a report to automate this task.

5 Handover project

5.1 Introduction

“A recent study from the APM Research Fund identified four broad categories with three recommendations that emerge as factors that have been in place on multiple projects that have handed over successfully from transition to business-as usual.” (APM, 2023)

One of the most important stages in any transition process is the transfer of work from one organization to another. This signifies the handing over of duties, information, and operational control from the outgoing company to the incoming one. To guarantee a smooth transfer of work and reduce disruptions to continuing operations during this transitional phase, it is essential to plan carefully, communicate effectively, and coordinate seamlessly between the two parties.

Careful planning, effective communication, and a transition plan that is well-documented are essential components of a handover project. Usually, the process starts with an extensive assessment of the project's present state, including its objectives, significant events, and remaining tasks. This assessment aids in identifying any outstanding problems that must be fixed prior to the handover.

A handover is frequently motivated by factors like cost reduction, increased efficiency, better control, or a strategic shift in business goals. A successful handover is essential to ensure business continuity, maintain customer happiness, and protect the organization's interests, regardless of the underlying causes. Both the outgoing and incoming parties are essential to the handover procedure.

The departing business must facilitate a complete understanding of the work processes, systems, and dependencies, share expertise, and offer thorough documentation. “Every handover documentation should include the necessary credentials, logins, tokens, and other account details needed for accessing software and overtaking the new role.” (Olmstead, 2023)

On the other hand, the new team must carefully take in and assimilate this knowledge, develop efficient communication channels, and prove their capacity to carry out the operation without interruption.

“Effective handover documentation should be clear, concise, and relevant to the context of the handover. It should allow the person or team taking over to quickly understand the project’s current state and easily take over the day-to-day tasks and associated responsibilities.” (Olmstead, 2023)

5.2 Panaya Tests

As my team begins the crucial task of taking over the company's Oracle Cloud software's financial functionality, we are aware of the necessity for thorough testing to guarantee the correctness, dependability, and efficiency of our financial processes.

Testing is essential for spotting any problems, verifying the software's functionality, and maintaining smooth financial processes inside the company.

To guarantee full coverage during the Panaya tests, our team effectively distributed roles among different sections within the financial department. I took on the job of running tests in both the budgetary and expenses sections as part of this effort. All the tests performed by the team were done in a test environment called PREPROD, and all the steps recorded on the Panaya software.

One of the many test that were done in the expenses area were related to creating and uploading expenses, and the bank account of the employees.

Example on how to create and submit an expense report with receipts and all the steps.

1. Go to environment -> Log in with Employee user -> My Expenses module -> Expenses

Figure 3-Home page from PREPROD- source: prepared by the author

2. Select "+ create a report"-> on the purpose write "TEST"

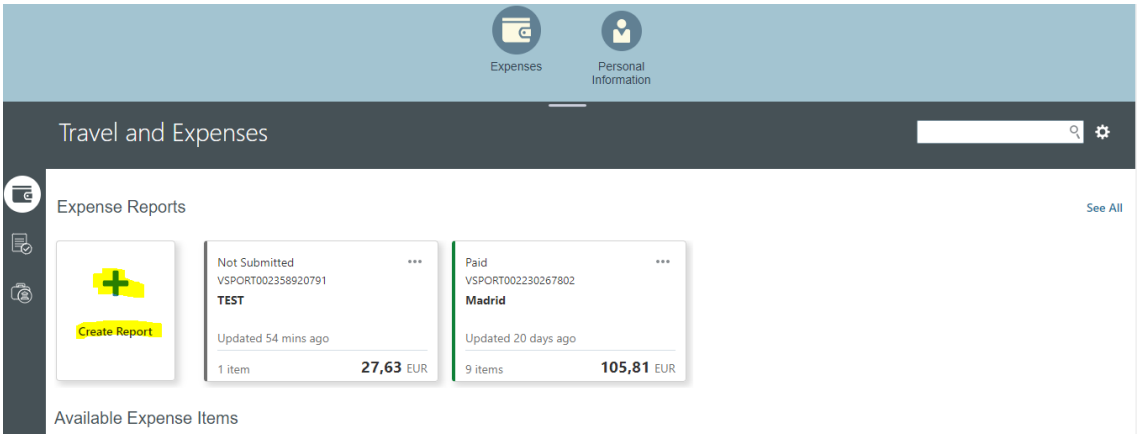

Figure 4-Example of expense report in testing environment- source: prepared by the author

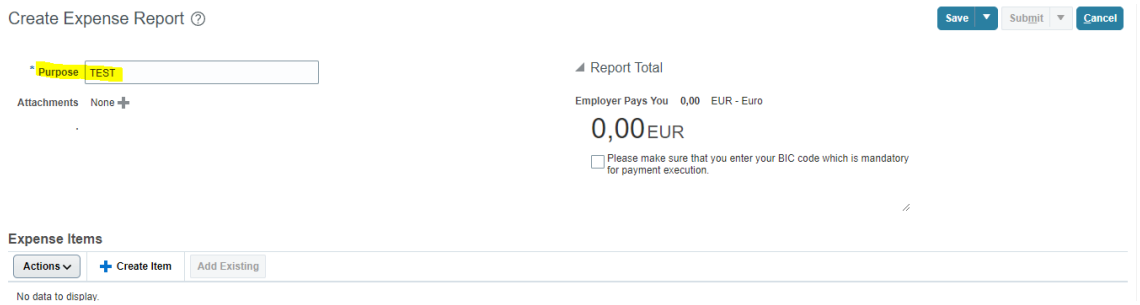

Figure 5-Example of expense report in testing environment- source: prepared by the author)

3. Select "create item"-> choose "type" and "amount"->add "receipt"-> press "save"-> click the box in employers pays card issuer.

Figure 6-Example of expense report in testing environment- source: prepared by the author

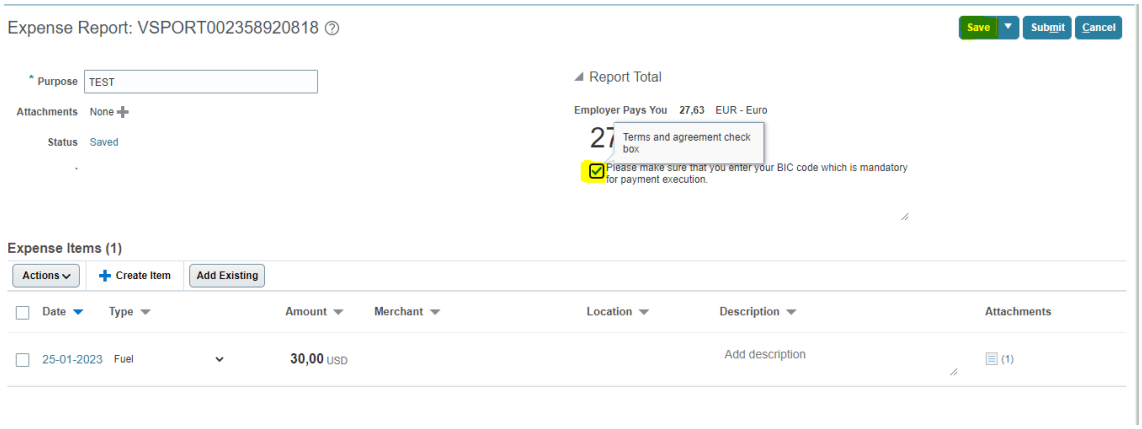

Figure 7-Example of expense report in testing environment- source: prepared by the author

4. Now press "submit" ->see if its pending approval.

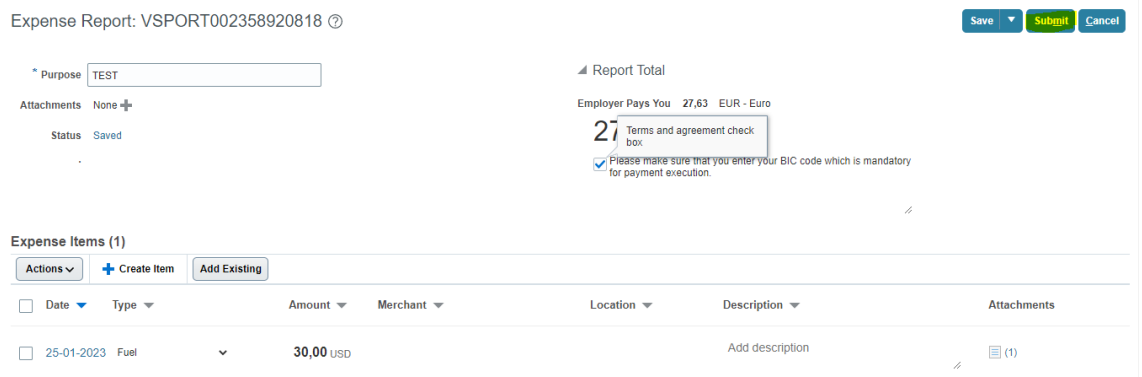

Figure 8-Example of expense report in testing environment- source: prepared by the author

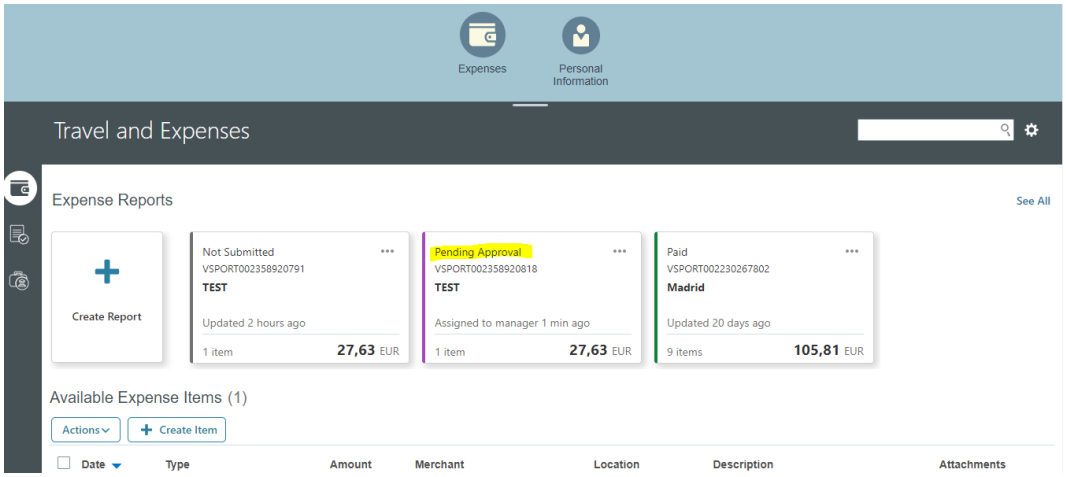

Figure 9-Example of expense report in testing environment- source: prepared by the author

In the end the expense report will be waiting for approval by a manager, and once it is done, the payment will be done.

Inside the expenses department testing I performed the following tests:

- Create a delegation to another employee.
- Manage bank accounts.
- Submit expense report with expense items without receipts.
- Create expense item for dinner with several participants.
- Create and submit expense report with receipts.
- Set up a vacation rule.
- Run report showing amounts to be paid.
- Review and approve one expense report.

As for the Budgetary department, I performed the following tests:

- Create control budget spreadsheet.
- Budget period statuses.
- Review budgetary control balances.
- Review budgetary control transactions.
- Create budget calendars.
- Review budget entries.
- Create control budget.

As it was mentioned above, these tests were performed once every six months, to validate the processes and ensure that everything was working well.

5.3 Jira Tickets resolution

One of the main goals of this work project was to fill in the position of a third-party organization in charge of supporting the management of Jira tickets.

The main objective was to transfer this responsibility to an internal team (my team) and eliminate the requirement for outsourcing. In order to help with a smooth transfer, our team has been having handover meetings since February.

The handover meetings offer the external company a chance to educate our team on the Jira ticket control procedure and share their ideas with us.

The goal is to provide the internal team with the information and understanding required to guarantee a smooth transfer of responsibility without impacting the system.

Currently, the internal team is only responsible for managing the ERP access area tickets, but the long-term objective is to take on the full responsibility of all the areas for Jira ticket control. This is because, the company sees this tasks as important and valuable inside the company, and feels it safer and cheaper to have them being done by employees of the company, instead of being dependent on a external team.

A daily meeting schedule has been set by my team to guarantee efficient coordination and communication.

Team members may share updates, discuss any problems or concerns, and ask their coworkers for help or guidance at these meetings.

The priority of the tickets is one of the key factors to be taken into account during these meetings. A prioritizing system has been built by the team to guarantee that critical and major tickets receive top priority.

The team makes an effort to address these issues quickly and effectively since they are aware of the potential impact they can have on the business.

An example of a simple ERP access Jira ticket is the following:

Step 0: The ticket is received by the internal team.

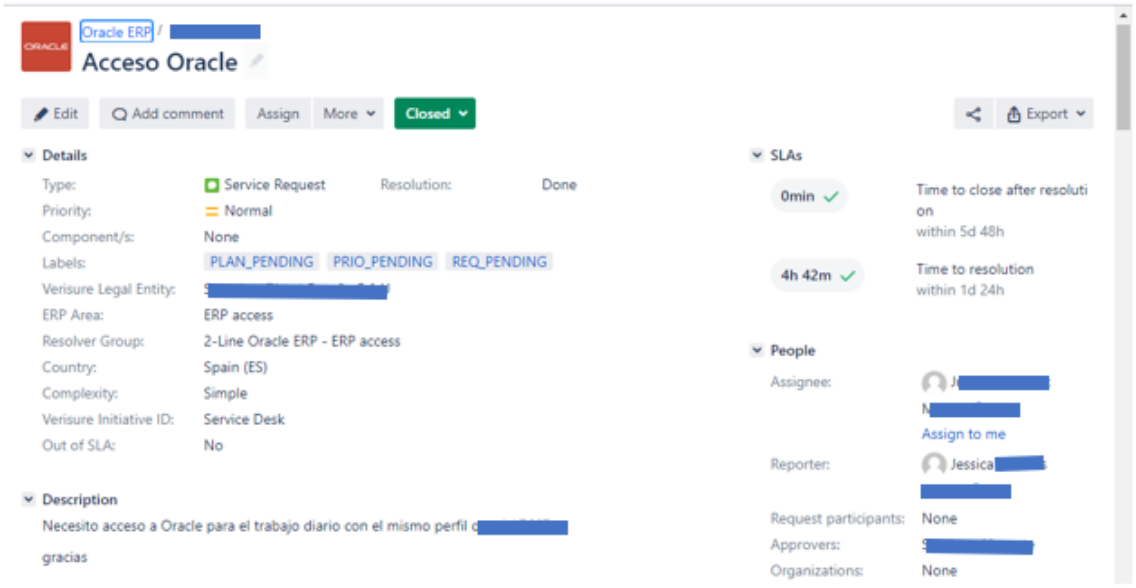

Figure 10-Jira ticket page- source: prepared by the author

Step 1: Check if the user is active in oracle and the person type/job with the ID number.

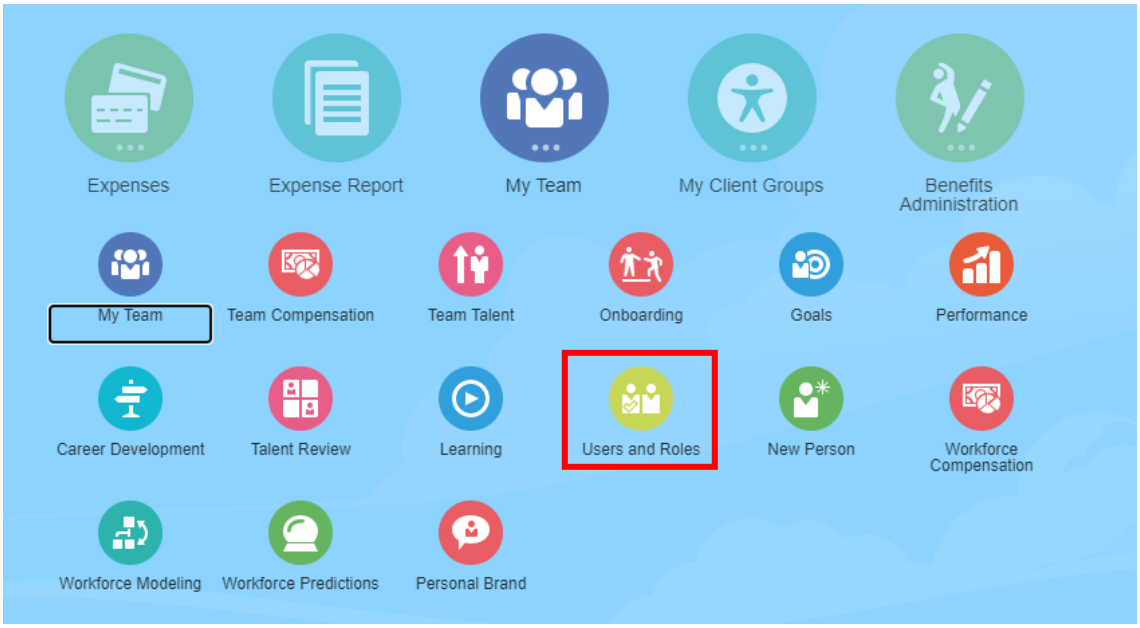

Figure 11-The "My team" tab on the ERP software- source: prepared by the author

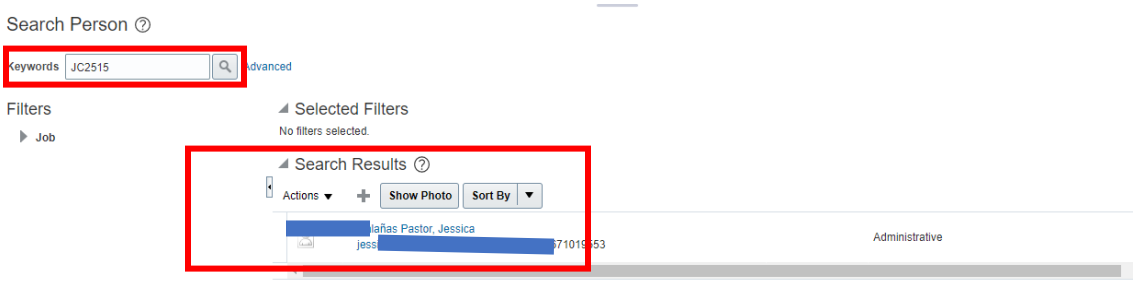

Figure 12- search the details of the requester- source: prepared by the author

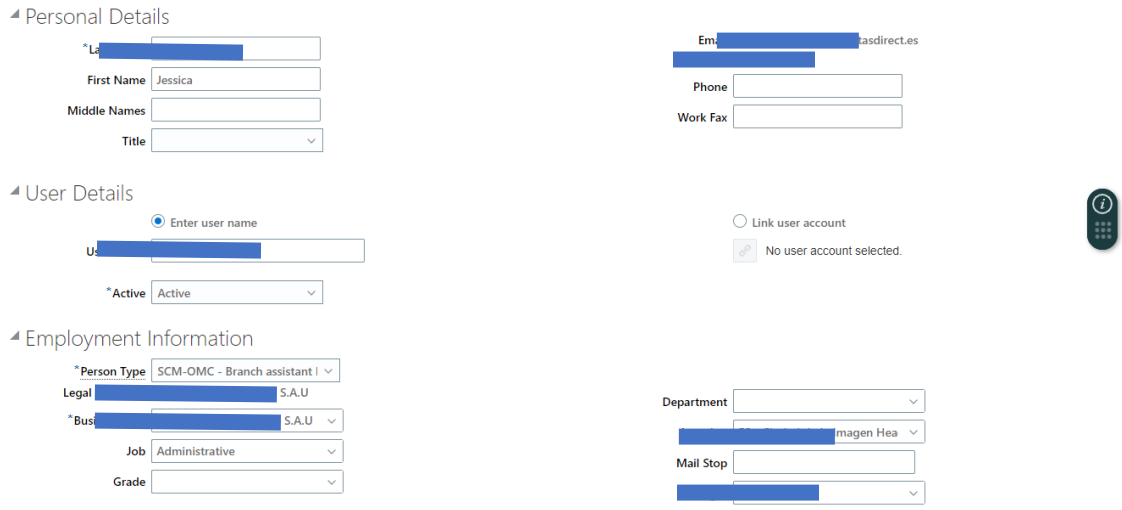

Figure 13- results of the details of the user- source: prepared by the author

Step 2: Do the same process for the example user given by the requester.

Step 3: Compare the roles of the Requester and the Roles of the example user:

Table 2- Roles of the requester and example user- source: Author.

jessica (requester)	example
Verisure RO Person National Identifier View	
Warehouse Operator	VSD SVS All Cost Center
Procurement Requester	Verisure BI Administrator
Inventory Manager	Production Supervisor
Verisure BI Administrator	Receiving Agent
VSD EXT OV Requester	Procurement Requester
VSD_EXT_RECO_AGENT	Procurement Catalog Administrator
Verisure_TRP_Employee_Emp	Financial Analyst
VSD EXT Subinventories Basic	Inventory Manager
VSD SVS All Cost Center	Verisure RO Person National Identifier View
Procurement Catalog Administrator	VSD EXT OV Requester
Receiving Specialist	Verisure Custom Manage Product
Production Supervisor	SBNNOGL Branch Assistant
Receiving Agent	Verisure_TRP_Employee_Emp
	VSD_EXT_RECO_AGENT

Step 4: Ask for the Approvals, from the matrix, taking into accounting the ERP area

Step 5: After getting the approvals, send the ticket to L2

Hi L2,

Could you give **Jessica (123)** the same accesses as **AA123**, please?

Thank you very much,

Username: **AA123**

Email: **jessica@gmail.com**

Category: if known

Example of username with the same access: **BB789**

Roles and data access: **Financial Analyst, SBNNOGL Branch Assistant, Supply Chain Operations Manager**

Environments: **PROD**

As in the Jira tickets resolution, I performed the solving of some issues like the one above, being them:

- ERP access (example above)
- Chart of accounts (create and change in local or group accounts)
- Inventory organization access (Give a user an access to an inventory organization asked)
- Record expenses (reactivate a user, in order to file an expense report)
- Reporting finance (make any changes inside the report, for example change the currency of the report)
- Expenses management (errors in submitting an expense report)

6 Discussion

6.1 Difficulties and challenges

The project's challenges are described in the section that follows, along with how they were resolved. There is no denying that obstacles will inevitably arise during a project. In this regard, the project I worked on at a Swedish multinational organization with headquarters in Switzerland, and the biggest offices in Spain. A company that has 126 nationalities and 26000 employees was not an exception by its size, diversity of people and countries that is on, and it provided me with the chance to address the challenges of project management and the viewpoint of the client.

One of the first difficulties faced was the lack of experience on the area that I was working on, being this my first job, and the overall adaptation to a new environment and the reality of working in a company. All of this can be an overwhelming and makes it more difficult to perform the tasks asked in an effective way.

I encountered the same difficulties as many new hires when I first began working for this multinational company. To establish a solid foundation for my upcoming responsibilities, I had to spend the first few weeks getting to know the business and its internal procedures. In the process, I learned a significant amount of new information about software development procedures, business logic, and the application of various products. There were other issues to get past in addition to personal challenges like the usage of technical terms in development and internal procedures.

Having a solid understanding of projects and the ability to maintain an organized to-do list, monitor progress, and assign duties to others are necessary for success. Understanding projects and their requirements presented another difficulty because, frequently, project theory and practice diverge significantly. Given the dynamic nature of technology and project requirements, it is crucial for the person assigned with working as the interface between the IT department and development to possess flexibility and adaptability.

During the early times it was difficult to communicate with some international departments, due to the language barriers, mostly between the French and Spanish departments which had some difficulties in the domain of the English language and not enough vocabulary.

Also, when I started my work at the company I wasn’t familiarized with the software, which made it a challenge finding the right balance between learning and being productive, and prioritize the tasks given to me.

Since the tickets resolution and projects had tight time constraints, it was essential to work efficiently and to manage several tasks in parallel.

The fact that I don't have a lot of experience and domain knowledge of the software, lead to tasks or instructions to may not be entirely clear, and I had to seek clarification from a manager or other colleague.

It's critical to keep in mind that encountering difficulties while working as an intern is common and can provide a valuable chance to learn. overcoming these challenges helps interns grow professionally and personally and acquire valuable skills for their future employment.

6.2 Lessons learned

During my six-month internship at a multinational company dedicated to the security of homes and small businesses, I had the opportunity to acquire extensive knowledge in various subject areas.

The most demanding project was the Handover project, but during the work project I also collaborated on the reporting clean-up project, where I was able to put into practice my knowledge of ERP that had been covered theoretically earlier in my master's degree. Through these two projects I had the opportunity to expand my knowledge of the philosophy and way of working of the Oracle ERP system, Panaya and Jira.

Daily stand-ups, weekly alignment, management meetings, and regular retrospective meetings were held to keep everyone updated on progress and foster better teamwork. I discovered that consistent highlight reports guarantee stakeholder participation. It became evident that regular, succinct communication is essential. For example, summarizing the most recent findings, any problems or obstacles, and the next steps. The project's success was largely dependent on effective communication because many problems were caused by misinterpretations or attempts to complete tasks without sufficient knowledge. As a result, care must be taken to ensure that information is conveyed accurately and that expectations are understood. To feel secure about this, you can only do so by getting feedback. Retrospective meetings were a useful tool for identifying deficiencies because they exposed inefficiencies such as these.

I was also able to work extensively in the crucial field of quality management. It was my job to put testing procedures into place and use testing methods and platforms like Panaya to make sure the ERP was working. These hands-on learning opportunities significantly improved my IT-related knowledge and abilities. All things considered, these experiences have helped me deepen my knowledge and acquire useful skills in the field of information technology.

Through these execution of projects experiences, I have learned knowledge that is applicable to other companies as well as similar scenarios in the future. Therefore, these new perspectives give me the confidence to succeed in upcoming tasks, jobs or positions.

7 Conclusions

7.1 Synthesis of the developed work

While the IFRS16 project was not initiated during the whole work period the experience offered valuable insights into adaptability and the importance of being flexible in a professional setting. The IFRS16 project was postponed to give space in order for the team to focus on the work with the handover project.

An in-depth understanding of organizational dynamics and the connections between different departments was also promoted by the work. It emphasized how important good cross-functional cooperation and communication are to accomplishing group goals.

Even though the initial goals hadn't been all achieved exactly as planned, looking back, this experience turned out to be a worthwhile educational opportunity. It reaffirmed the value of flexibility, resilience, and the capacity to draw significant lessons even in unexpected situations. I also acquired the startup experience which I had been specifically seeking for. With my close relationship to the management and my interactions with every department, I was able to get a sense of how the business operated. There was a lot of responsibility involved in the work, which allowed me to make an instant impact on the company's success. The experiences I've gained are transferable to other projects, and I've connected with many smart colleagues. It is also an inspiring place to work because the company has demonstrated great flexibility in its organizational structure and supports a learning culture.

Looking back at my original objectives for this work, I am grateful that I was able to complete them all thanks to my project. In my opinion, learning comes more from practical experiences rather from reading theory. Therefore, the project report has provided me with the ideal means of completing my master’s in information management.

7.2 Limitation and Future work

While engaged in the handover project, I found that it would be a good opportunity to enhance the efficiency of Jira ticket management through the incorporation of Artificial intelligence (AI). The absence of AI in the project's ticketing system caused certain limitations that could have been eliminated with the integration of AI-driven functionalities.

Several challenges arose due to the absence of AI, including manual ticket handling, prolonged response times, and thus a suboptimal user experience. AI could have been instrumental in mitigating these issues, particularly during periods of increased team workload, where manual processing of Jira tickets led to inefficiencies.

Automating repetitive and rule-based tasks through AI could have liberated team members to focus on more intricate and strategic aspects of their responsibilities. Furthermore, the introduction of AI-driven

automation, capable of swiftly classifying and ranking tickets, had the potential to significantly reduce response times and ensure a prompt resolution of issues. Therefore, these enhancements would benefit both the project and user experience by providing a more interactive and intuitive interface.

To conclude, after I left the company, the objective of the team was to continue the support with the handover project tickets, while also starting the IFRS16 project that was already delayed. As for me, I will try and get more in-depth information about the ERP and the process that exist, not only for finance but also for other areas inside the company.

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