An Undergraduate Internship/Project on Oracle Fusion ERP for Union Group

By

Khalid Kaiser

Student ID: **1721478**

Spring, 2021

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Independent University, Bangladesh

June 16, 2021

Dissertation submitted in partial fulfillment for the degree of Bachelor of Science in Computer Science

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

This is to certify that the report is completed by me, Khalid Kaiser (ID:1721478), submitted in partial fulfillment of the requirement for the Degree of Computer Science and Engineering from Independent University, Bangladesh (IUB). It has been completed under the guidance of Sanzar Adnan Alam. I also certify that all my work is genuine which I have learned during my Internship. All the sources of information used in this project and report has been properly acknowledged in it.

Signature	Date
Khalid Kaiser	
Name	

Acknowledgement

First and foremost, I want to express my deepest sense of gratitude to Almighty Allah, it is because of His mercy and blessing that I have come so far. It has been a great privilege to work for Union Group as an Intern. I have received so much support and encouragement from the individuals of Union Group who have years of experience in IT. I would like to thank the members of Union Group and the whole team of ERP for spending their valuable time and knowledge which was essential for my intern experience.

I express my gratefulness to my internal supervisor, Sanzar Adnan Alam, Lecturer, Department of Computer Science and Engineering, Independent University, Bangladesh (IUB), for his invaluable instructions, continuous guidance, support and motivation during my internship period and preparation of this report.

Also I want to thanks my external supervisor and my mentor Mr. Hafizur Rahman, Head Of IT, Union Group, for giving me the opportunity to be a part of this organization. His support and leading ability were the driving force of this project.

My gratitude also extends to all other employees of Union Group who helped me to learn so much in my own skill development process and made right to fit in the environment. Many Thanks to the member of ERP, Mohammad Ferdoes Rahman, Kabir Hossain, Mahbubur Rahman, Rasel Chowdhury and so on for their time, effort and expert skills.

Finally, I proudly acknowledge the great sacrifices, good wishes, moral support, fruitful advice, inspirations and encouragements from my family members, relatives and friends.

Khalid Kaiser

May, 2021

Letter of Transmittal

16th May 2021
Sanzar Adnan Alam
Lecturer,
Department of Computer Science and Engineering,
Independent University, Bangladesh

Subject: Letter of Submission for Internship Report, Spring 2021

Dear Sir, This is to inform that with due honor and respect, I, Khalid Kaiser (ID: 1721478) from Internship Course of Spring 2021 Semester, Section 8, would like to submit my Internship report. This report is based on my internship program and the project I have worked on. My internship was conducted from 22nd February to 15th May 2021 and it has been completed at Union Group.
This report is based on my experience and the work I did at Union Group during my internship program. The primary goal for my internship was to gain experience from working in the group of company and familiarize myself with all the different technology related fields of the company, including research and development, whole business system, documentation, software development and to get acquainted with software development processes and practices.
Over the period of my internship at Union Group, I had to learn and adapt to the evolving technologies being used in different situations and requirements and to be able to apply them in real life projects.I hope the following report can achieve your approval and is adequate.

Sincerely,
Khalid Kaiser, 1721478
Email: 1721478@iub.edu.bd

Evaluation Committee

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Signature

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Name

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Supervisor

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Signature

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Name

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Internal Examiner

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External Examiner

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Convener

Abstract

In this modern era, corporate sector become more competitive on basis of economy day by day. It is very important to maintain a precise and efficient system, so that we can serve the customer with beneficial information and proper balance record. By increasing the efficiency of a company we can earn or make more profit through ERP "Enterprise Resource Planning". By using ERP "Enterprise Resource Planning" by Oracle fusion is an advanced technology available at the moment for the mid-range and multinational company. ERP is an integrated web based software which so much effective but not that much user friendly to be used. It is very necessary to train the employee so that they can easily adopt the environment. It uses oracle cloud database to store the data which is safe and secured. Moreover the company don't need extra employee to manage the server room. It is a pre-made software ready to be implemented in any company that requires. The task of the company is to create a team for the project to design their data and select desired modules. Now-days technology has become advanced enormously. In this report it will be discussed how to implement an ERP system and how a mid-range company can be benefited from this.

Contents

List of Figures

List of Tables

Chapter 1

Introduction

1.1 Overview/Background of the Work

I am working in 'Union Group' which is a large group of company.It has variety of business unit. For that reason it is very difficult to manage and control their database and get the monthly and daily report of the business. Previously this company used their multiple in-house legacy software and database to keep their data. All the database is then connected to a tally software for the accounts.

All this seems to be lengthy process to collect data from the factories and generate reports as per the higher authorities. So they decided to migrate to Oracle fusion "ERP" (Enterprise Resource Planning)[1] software.

Oracle fusion is a platform which provides the interface for the user to record data in "ERP"- Enterprise Resource Planning for a whole products life cycle starting from Raw Materials to Finish Goods as long as not sold to a consumer. It makes very easy for the user to keep the data and fetch it any time. Essentially "Fusion" refers to Oracle's Cloud infrastructure ("Fusion" Middleware) and the development of new applications specifically designed for the Cloud and subscription services. Oracle has invested heavily in Fusion middleware and applications and this is one of the biggest areas of growth for the company.

1.2 Objectives

The main objective of the project is to ensure easy process for the employee to manage the records of the business unit and create annual reports of it. After the world was hit by the global pandemic most of the companies has faced a huge blow, as it is not possible to check the stocks physically in the warehouses anymore. This website will allow users to get all the relevant information without the hassle of personally going to the factory and match the stocks. They will also be able to match the cart of balance in a secured

manner. The most beneficial factor of the website is that, because it is an online-based system, people can use it on their computers and phones, at any time anywhere.

1.3 Scopes

i. **Order Management:** Employees can create order. After creating an order the system automatically assign an Order_ID and user can then use the Order_ID to edit it according.

ii. **Pricing Administration:** Can be used to set price for a unique product in different level.

iii. **Customer Creation:** Customer can be assigned for different business unit.

iv. **Contact Management:** It provides an interface to create customer contact in the system.

v. **Inventory Management:** Employee can create, update, read and delete the products stocks stored in the inventory.

vi. **Quality Management:** It provides interface for Audit Report.

vii. **Receivable:** It provides three sections Billing, Account Receivable and Revenue.

viii. **Procurement:** It give interface for purchase requisition and receipts.

ix. **My Enterprise:** It allows the user to create new offers, update and add new features to the business.

x. **Tools:** It gives the user to schedule processes, set preferences, worklist, report and analysis, collaboration massaging.

xi. **Smart Form:** It gives tabs for upload serial information, issue serials and IMEI issues.

xii. **Dashboard:** It gives the users dashboard which shows all his/her pending task and completed task, for example: Pending delivery reports.

xiii. **Work Execution:** Here the user will set plan and input all the raw materials for production and check the output of final goods.

1.4 Background of the Company

UNION is a multifaceted group of companies—bringing a wide range of products and services under its umbrella. With a huge workforce, UNION prides itself on its diversified conglomerate character. It ranges from Retail, Mobile phones, Textiles, Dyeing, Real Estate and Engineering, Power & Energy, Tours and Travels and Hospitality Industry. The philosophy of the group is to nurture and promote good ideas and growth; to provide satisfaction to customers; to innovate and go beyond accepted standards of doing business. At UNION we thrive in an extreme competing environment where challenge and

hard work is rewarded. The strength of the UNION is in its core management principles. UNION plans ahead with experienced foresightedness, strive to bring the planning into reality and in the process learn from its achievements and mistakes. It has grown gradually, excelling year by year. Over the years, through its unified endeavor, it has been successful in becoming what it is. The Group's philosophy is simple and is well illustrated in its slogan—Delivering the Best. And to fulfill the idea of delivering the best is has policies and procedures in place so that everyone knows what to do and how to perform to the best to their abilities.

1.5 Company Departments

Union Group has Textile & Manufacturing Department, Mobile Division, Aviation, Real Estate & Engineering Department.

1.6 Product & Services

Textile & Manufacturing: In this section Union Group has 4 sites. Daeyu Bangladesh Ltd. (Export oriented spinning,Yarn Dyeing & Sweater Factory),SAM REE Dyeing (BD) Limited (Export oriented Yarn Dyeing Factory), HP Chemicals Limited (Manufacturer of Hydrogen Peroxide), Vibrant Software Ltd (Mobile Manufacturing Unit).

Mobile Division: Union Group has 3 different distributor in mobile division section. CMPL (National Distributor of NOKIA), CPL (National Distributor of iPhone), QIL (Brand Owner of maximus Mobile).

1.7 Address and Contact Information

Address: 68/1 Gulshan Avenue Dhaka 1212, Bangladesh
Contact: +88 02 2222 85771, +88 02 2222 85772,
info@uniongroup.com

Chapter 2

Literature Review

2.1 Relationship with Undergraduate Studies

CSE 203(Data Structures): This is the most basic course that helped us with the ideas of several data structures and their applications such as Stack, Queue, Linked List, Array, Pointer and so on.

CSE 213(Object-Oriented Programming): In the developing industry most of the data is represented as an object. It also taught how to write modular programs which made codes less repetitive and more reusable.

CSE 303(Database Management): This was the course that taught me how to design and plan a project. It covered popular planning and strategy practices such as Six Element Analysis, Problem Analysis, System Development Life Cycle, Rich Picture, Requirement Analysis, Entity Relationship Diagram, Business Process Model, Normalization and many more.

CSE 307(System Analysis and Design): This course gives an overview of Used Case Diagram, Used Case Scenario, SDLCs and how to adopt each one of them to the project.

CSE 309(Web Application and Internet): This is the course where the development of web applications was taught. It covered very important technologies that are highly in demand in the industry, such as HTML, CSS, JavaScript, jQuery, View Engines (Handlebars and embedded JavaScript), Node.js, Express.js, and MongoDB.

2.2 Related works

Nike - Nike is one of the most renowned names in the field of commerce and industry and is one of the prestigious and leading shoe companies in the world today. They use SAP ERP to manage their Database.

Bangladesh Bank- Bangladesh Bank is positioned as one of the top Bank that

has accomplished a few ambitious projects scattered in the most prominent locations in Dhaka. Their system was designed to incorporate all the aspects of their services on one platform (SAP ERP).

Chapter 3

Project Management & Financing

3.1 Work Breakdown Structure

WBS[2] is a hierarchical structure which demonstrates a project's breakdown into smaller segments. For our project, we have produced a WBS so that our work is coordinated. WBS covers a visual of all the scopes, risks, points of communication, responsibilities, costs and guarantees that it does not skip essential deliverable. For brainstorming and collaboration, it is the ideal tool for the team. In our WBS, we have used the top-down approach.

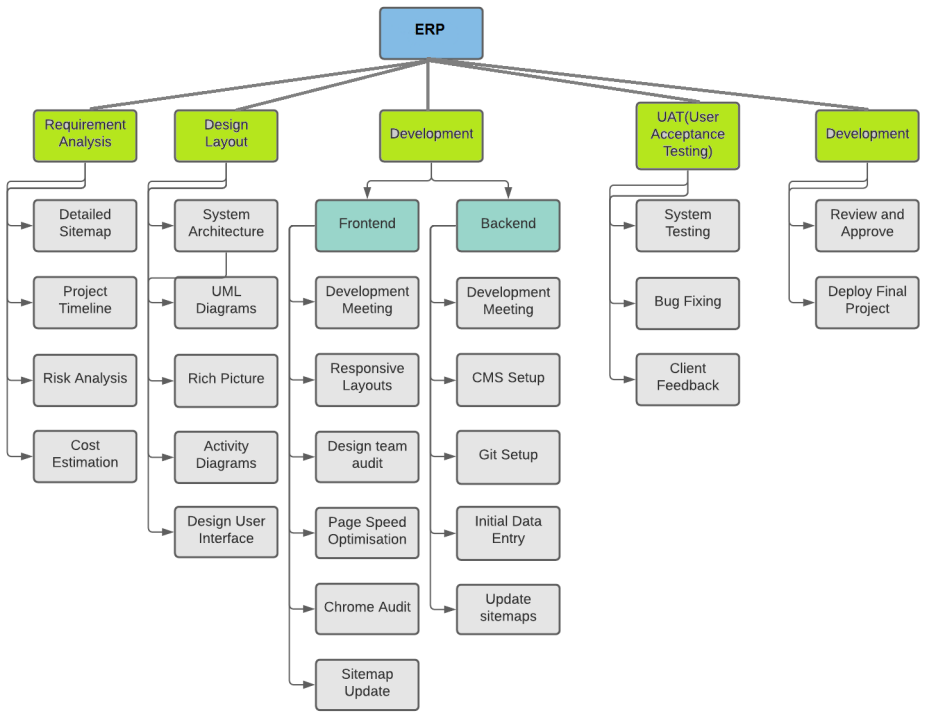

Figure 3.1: WBS for ERP

3.2 Process/Activity wise Time Distribution

For Each Section we have described in the WBS Diagram for ERP we made a time allocation. The Table below shows them in details.

Task	Days	Work Percentage
Requirement Analysis	15	20
Design Layout	10	10
Development	25	40
User Acceptance Testing (UAT)	15	15
Deployment	15	15
Total	80	100

Table 3.1: Process Time Allocation

3.3 Gantt Chart

We have used the Gantt chart to plan and schedule all the activities that were needed to be done to complete the project successfully.

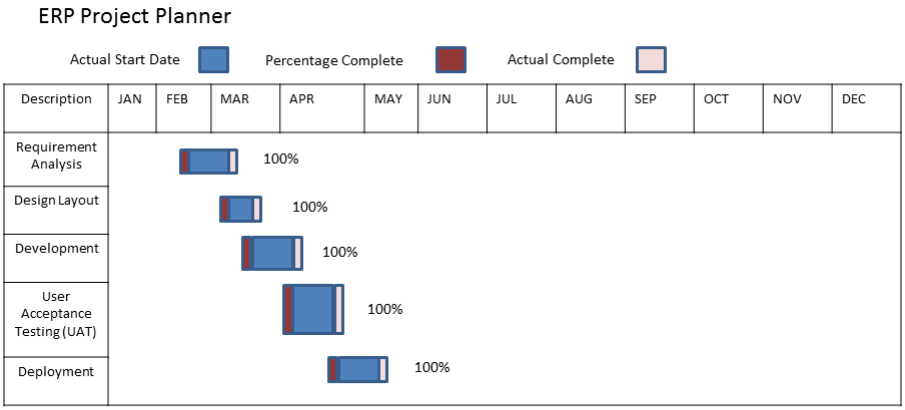

Figure 3.2: Gantt Chart for ERP

3.4 Estimated Costing

The cost was calculated on the basis of the features the company requirement for the system. This includes pre-designed themes, logo design cost, Number of users included.

Work Distribution	Costing
Oracle (Deployment)	$200000
Development	$50000
User Account	$2000 Per Year
Domain and Hosting	$90000 Per Year

Table 3.2: Estimated Costing Table

Chapter 4

Methodology

It is important for companies to analyze the 'ERP' implementation method, since the risk of failure in 'ERP' implementation is substantial and can be a highly expensive ordeal. Typically, companies will follow a specific methodology framework to deploy an 'ERP' system. A methodology is used to structure, plan, and control the process of implementing the 'ERP' system. The methodology may include tools, templates, specific deliverables and artifacts created and completed by the 'ERP' project team. A methodology can be thought of as the roadmap where the real work for the implementation begins. The most common implementation methodologies may be joint ventures with respect to industry, company driven, 'ERP' vendor led, or a combination of company driven and 'ERP' vendor led. An implementation methodology can be company driven utilizing internal software practices, or 'ERP' vendor led where a designed methodology for the implementation is used. Company driven implementation methodologies generally govern all software implementations, irrespective of the type of project. The methodology is generally flexible and can be adjusted to suit the needs of a particular type of software project. 'ERP' vendors have their own proven methodology that is used repeatedly for customer 'ERP' implementations. The vendor led 'ERP' methodology may also require minor changes or to be tweaked to satisfy a company's implementation requirements.

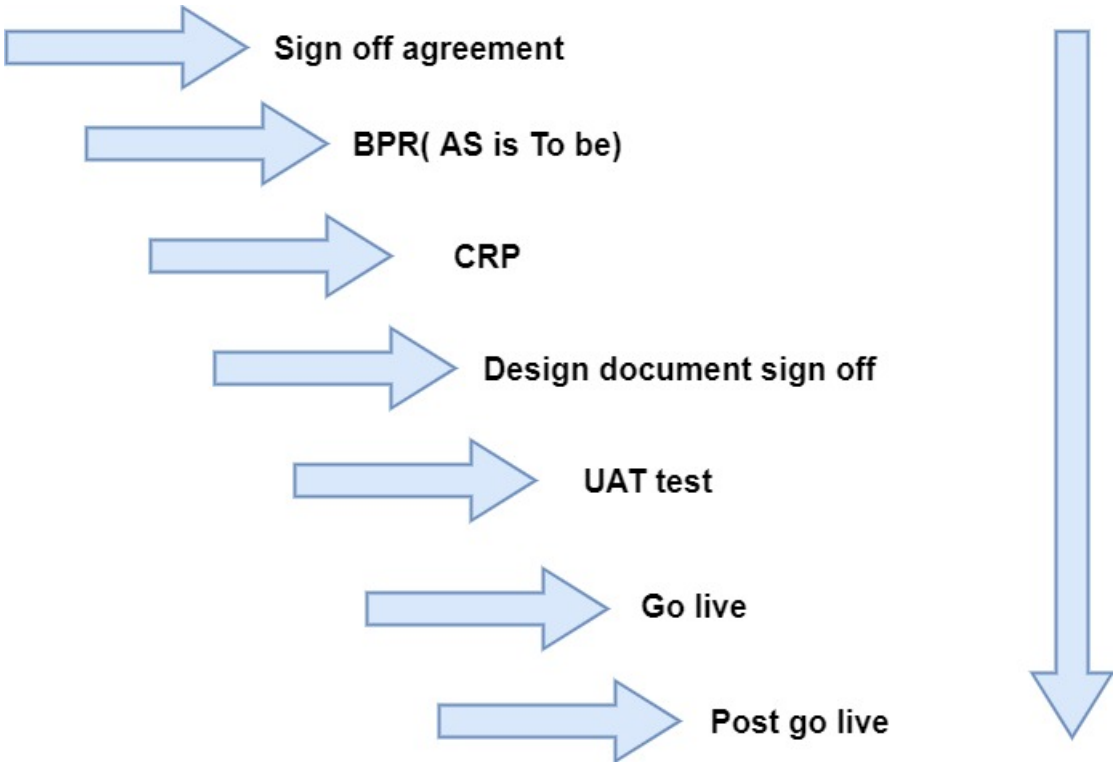

Figure 4.1: ERP Methodology

Chapter 5

Body of the Project

5.1 Work Description

ERP from Oracle fusion is an online website for the Union Group to manage their multiple business units in a single simplified platform. Project management includes the planning, organizing, timing, resourcing, and scheduling that define the beginning and end of the implementation. The establishment of project management prepares the project team for the structure and control needed to keep the project on track. The role of project management in implementation is critical. Many times, competing projects and unexpected issues arise that can derail the project implementation. Project management provides the process to monitor, derive solutions, and stay on track with the implementation.

My work in the team was to reconcile the data with previous in house software they used and to work on the analysis portion such, Used case study and data verification. Oracle Fusion globally updates their software 4 times yearly, so my work also was to find the problem of that software which should be updated. So that, the software would be user friendly.

5.2 System Analysis

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. System Analysis[3] is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem-solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose. Analysis specifies what the system should do. This chapter contains parts of System Analysis that will help understand the project better.

5.2.1 Six Element Analysis

Process	System roles					
	Human	Non-Computer Hardware	Computing Hardware	Software	Database	Communication and Network
Manufacture	Production Man	N/A	Computer and Calculator	Browser	Oracle Cloud	WAN/LAN
Sales Order	Sales Person	PO Receipt	Computer and mobile	Browser and PDF reader	Oracle Cloud	WAN/LAN and Text Message
Delivery	Warehouse	N/A	Computer	Browser	Oracle Cloud	WAN/LAN

Table 5.1: Six Element Analysis of ERP

5.2.2 Feasibility Analysis

Feasibility Study[4] is a study to evaluate feasibility of a proposed project or system. Feasibility study is the feasibility analysis or it is a measure of the software product in terms of how much beneficial product development will be for the organization in a practical point of view. Feasibility study is carried out based on many purposes to analyze whether software Products will be right in terms of development, implantation, contribution of project to the organization etc. What's actually involved in an ERP feasibility study? What does it mean to be equipped for an ERP implementation? ERP readiness involves multiple factors that all need to be taken into account before you start your project:

• **Needs Assessment:** Before finding out if you can execute a software implementation, you should determine if it's even necessary. Analyze current business processes and consider company objectives. Are there any inefficiencies or errors holding your enterprise back? Does your organization have the right tools to pursue future business goals? Could an ERP system solve your current pain points and get you set for growth? Research ERP capabilities to see if the software is the best approach to optimizing your business performance.

• **Resources Assessment:** An ERP implementation entails investment in both time and money. Do you have personnel who can dedicate time to fulfill the functional and technical requirements of your software project? Can you hire a third-party consultant to manage the project? Are your stakeholders and executives willing to fund the imple-

mentation? Most importantly, will this work even be worth it? Calculate the potential ROI to determine if your software will drive long-term value.

• **Technical Assessment:** The next step is figuring out the equipment and technical requirements for completing your ERP implementation. Will you host your software in the cloud or on-premises? Is your project team able to perform necessary testing or development? Will the new software be able to work well with your existing systems and support your workload? Even if you lack internal technical experts, you can work with outside consultants to understand technical needs. Company Culture Assessment: The greatest barrier to ERP success is often user adoption. Can you convince users of the value of the software? Can you provide the necessary training and communication to encourage user adoption? How will the software impact processes, skills requirements and your employees' day-to-day tasks? Figure out how users will respond to the new software and how much time your organization is willing to put into change management.

5.2.3 Problem Solution Analysis

An ERP feasibility study isn't a solo project. Decision makers throughout your organization are involved to make the task manageable and effective. Undergoing a comprehensive, collaborative feasibility study results in the following benefits:

• **Make an Informed Decision:** The biggest advantage of a feasibility study is that it allows your company to make an informed decision. Rather than make assumptions, your business can prove the value of an ERP solution through an organized methodology and realize what it takes to successfully execute the implementation.

• **Mitigate Risk:** Diving into a software project without understanding your requirements puts your business at risk of wasting your investment and frustrating end users. By assessing your organization, you can determine whether an ERP solution is necessary to improve processes and how it should fit into your business before rushing into the implementation.

• **Gain Comprehensive Feedback:** By involving multiple decision makers in the feasibility study, you can reach a conclusion from feedback across the enterprise. People with different areas of expertise can provide their take on the project and how it will affect their departments, so you aren't leaving out critical points of view and considerations.

• **Form Consensus:** There's a good chance that your organization isn't on the same page about a new software system. Starting an ERP project with a divided business leads to widespread frustration. Through the process of conducting an ERP feasibility study, your company can develop a shared understanding about the software investment and how it could improve your business performance.

5.2.4 Effect and Constraints Analysis

This system of the company helps the users to know about the quality of what are its business sectors and the procedures of each site. Stakeholders has the ability to check all the company's progress report, choosing from the business unit and they can get all the necessary information of the company, and also can apply for a monthly finance report. However, our system has some limitations. We all come in a sense that it's not a traditional norm as the price of the product depends and it also override the price in very orders by the needs of the employee. We are trying our best to make out more changes and add more features to our web application so that it could assist and enhance more and more people to start this practice of work from home because we all know in this pandemic situation it was not safe for us to gather in a place altogether. This will help all the people to work more efficiently and also it will keep them more encouraged.

5.3 System Design

System design[5] is deriving a solution which satisfies software or system's requirements. We can define software design as translating requirements into software components and interactions among them. Design represents the system, how it will work and how it can be assessed for quality. Design is the way to translate client's requirements into a system or software product accurately. Software architecture provides an abstract representation of the overall structure of software. This chapter contains numerous design level diagrams to have a clearer understanding of the system and flow of data.

5.3.1 Rich Picture

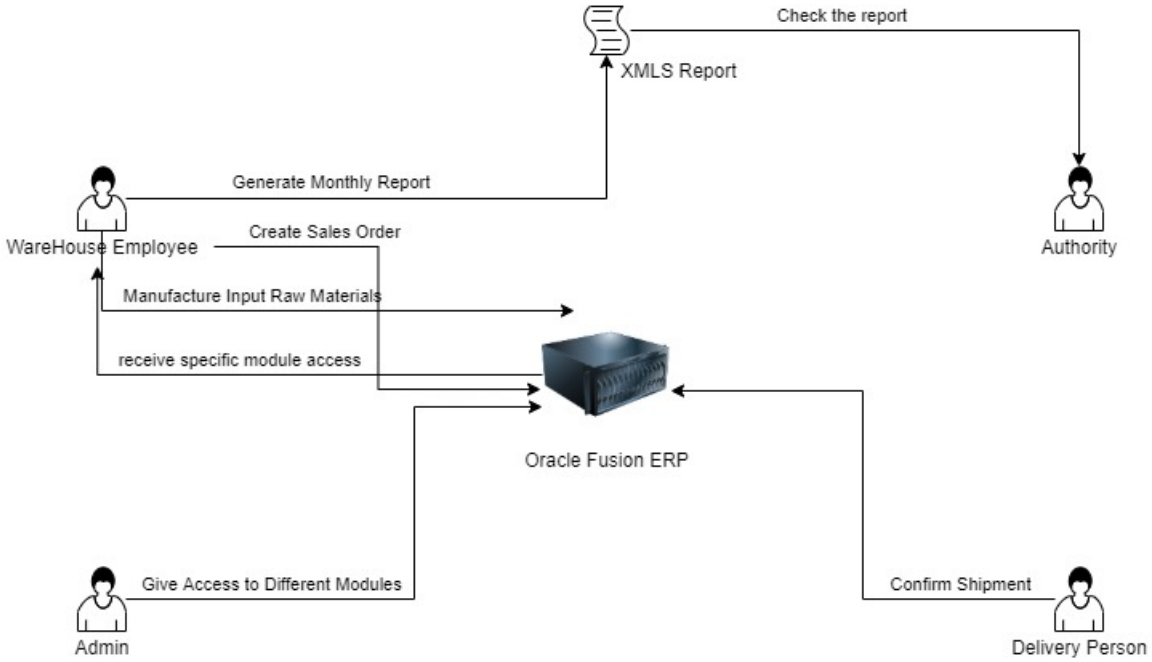

Figure 5.1: Rich Picture for ERP

5.3.2 UML Diagrams

The activity diagram is an important UML diagram that shows the row of one activity to another. The activity diagram of the user and admin help to visualize the row of their activity in graphical form.

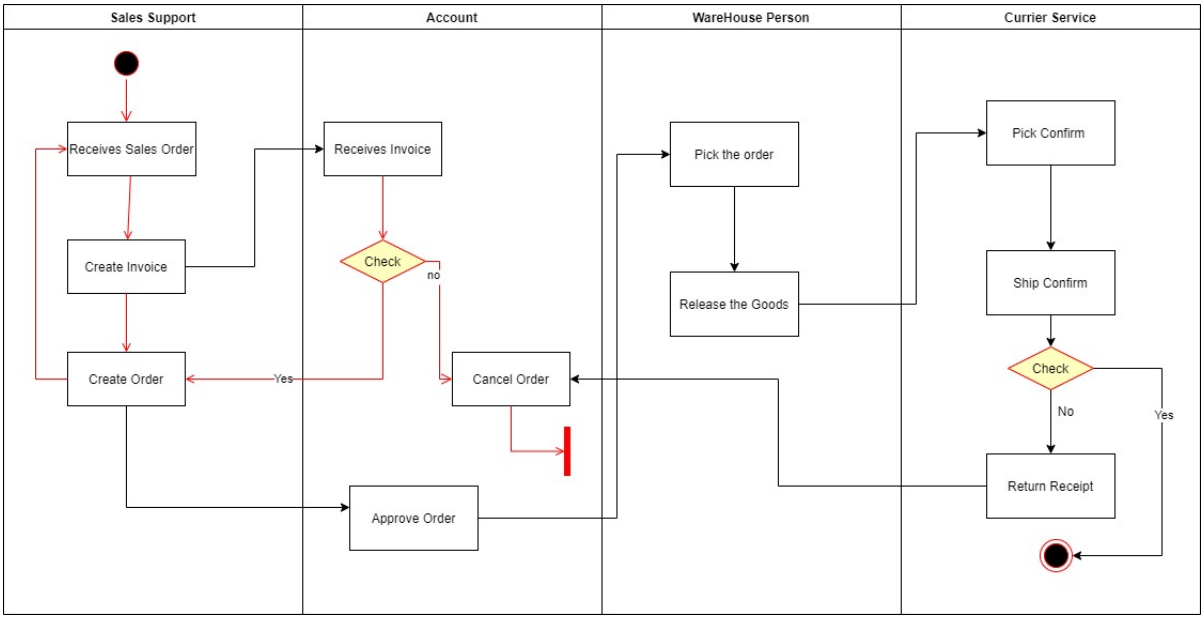

Figure 5.2: UML Diagram for ERP

5.3.3 Flow Chart Diagram

Flow Chart Diagram[6] describes the processes for the Textile Dying Unit.

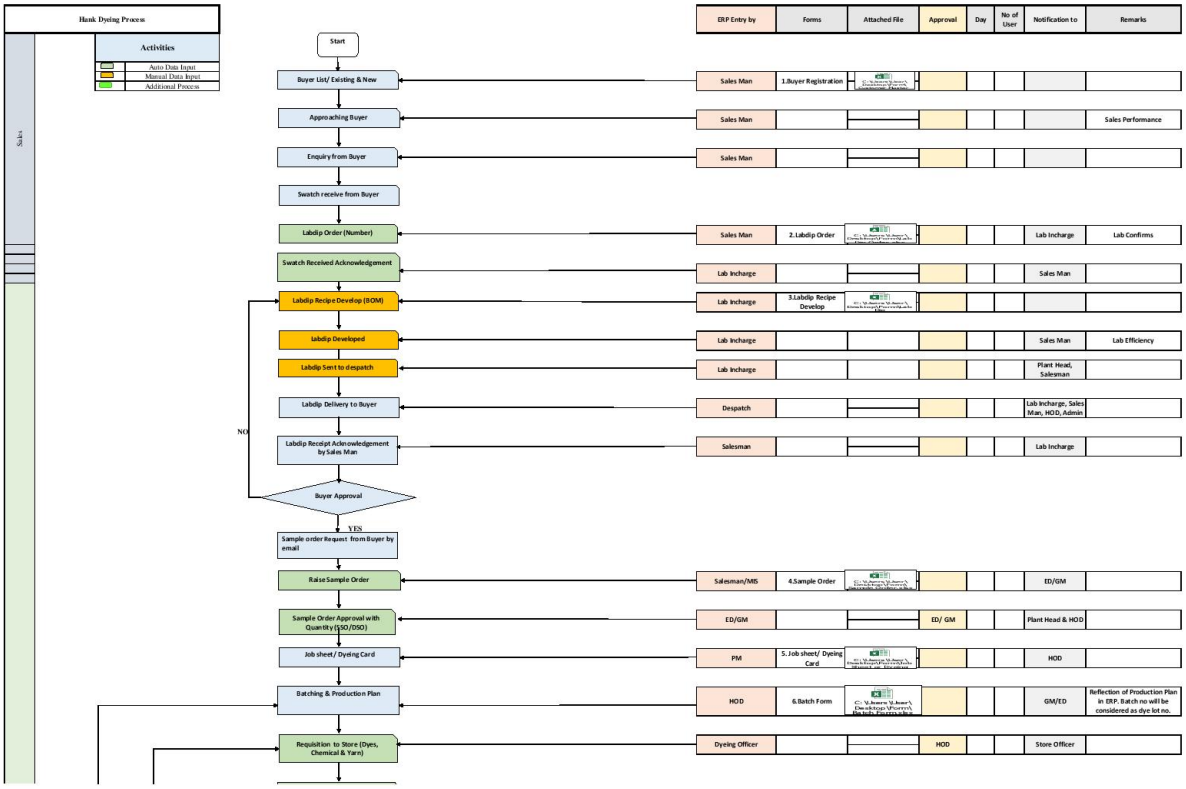

Figure 5.3: Flow Chart Diagram - 1

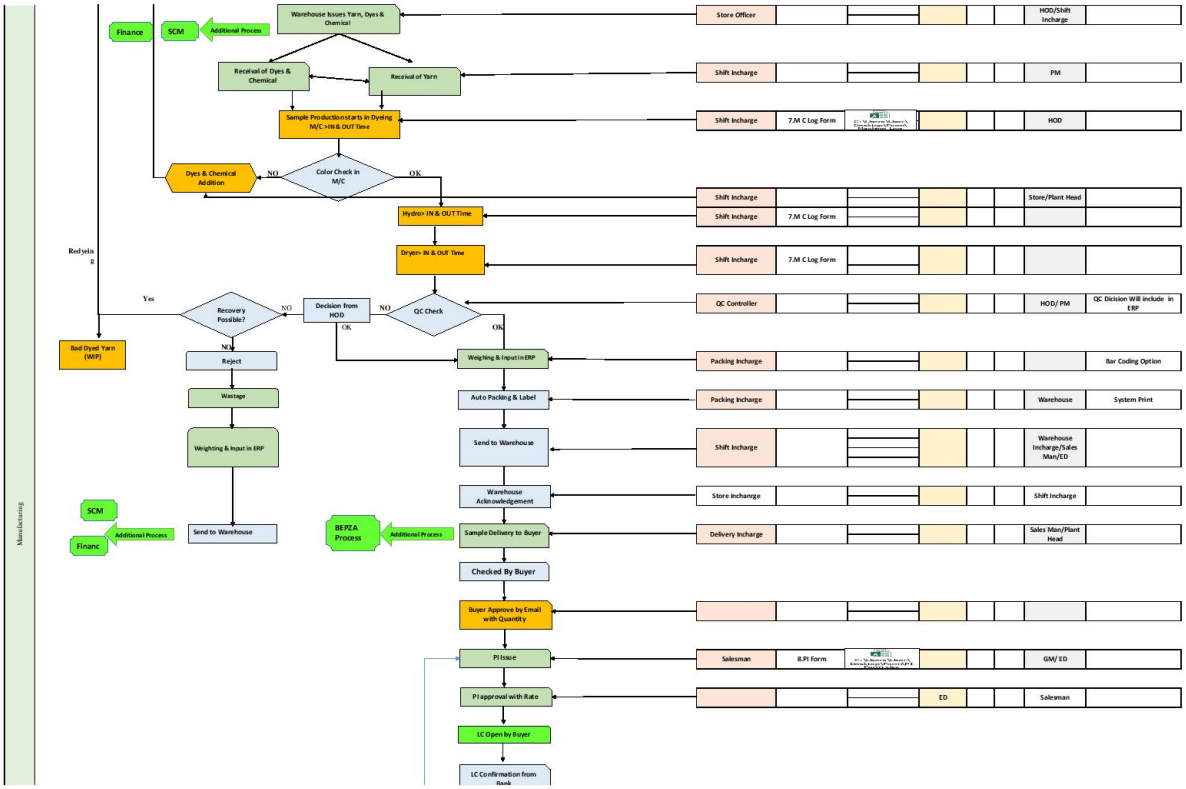

Figure 5.4: Flow Chart Diagram - 2

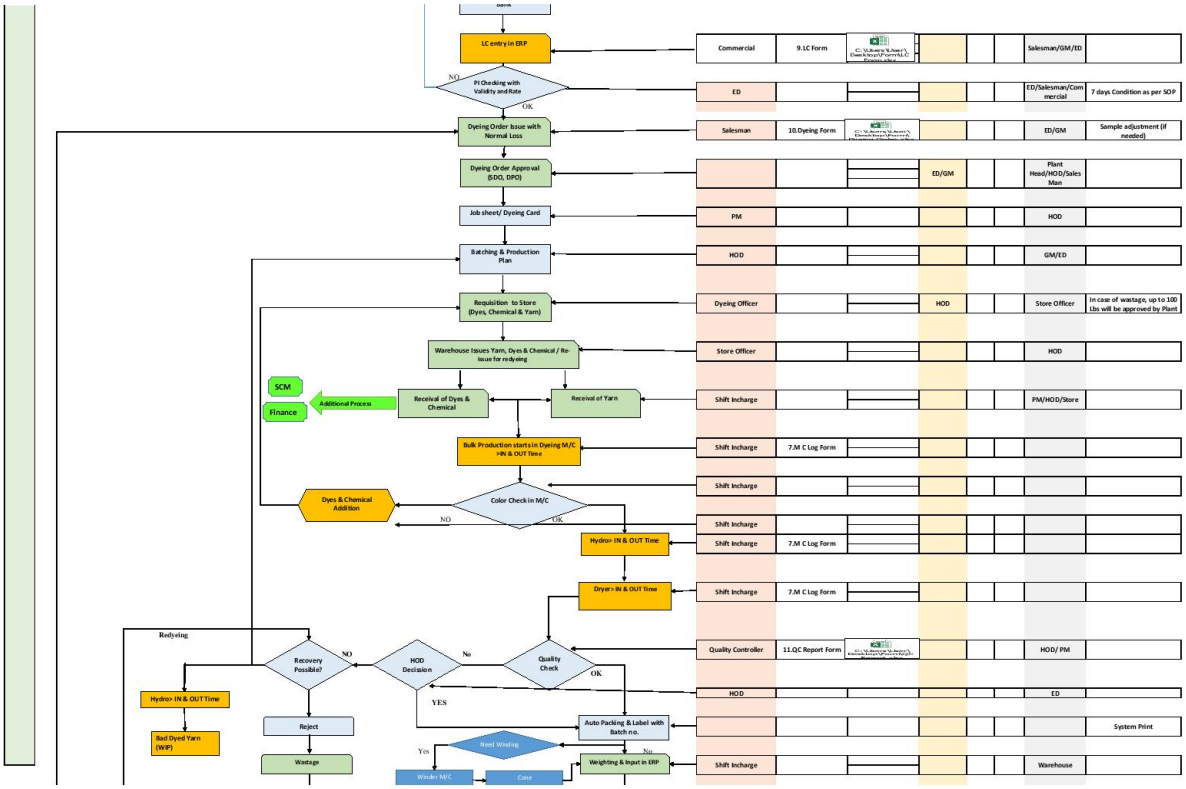

Figure 5.5: Flow Chart Diagram - 3

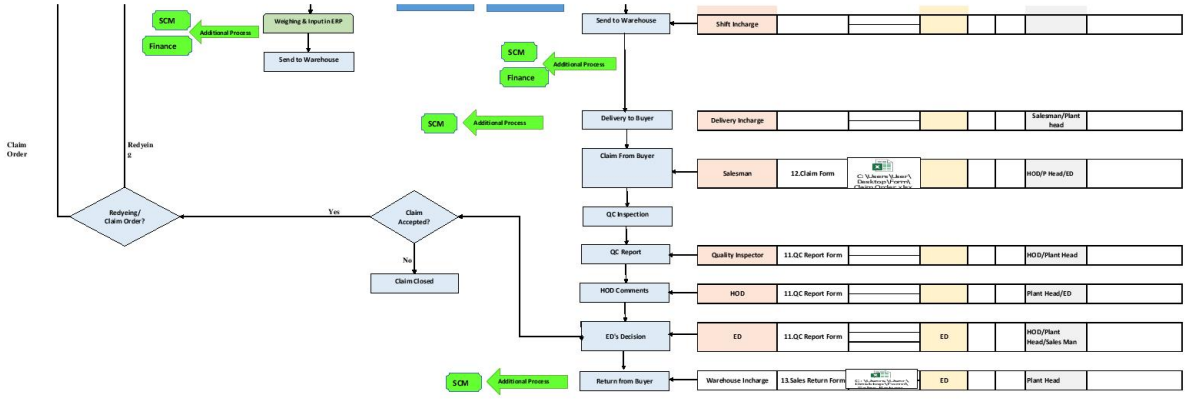

Figure 5.6: Flow Chart Diagram - 4

5.3.4 Use Case Diagram

The use case diagram represents the functional requirements of the system. It shows the actors, cases, communication links, system and relationship.

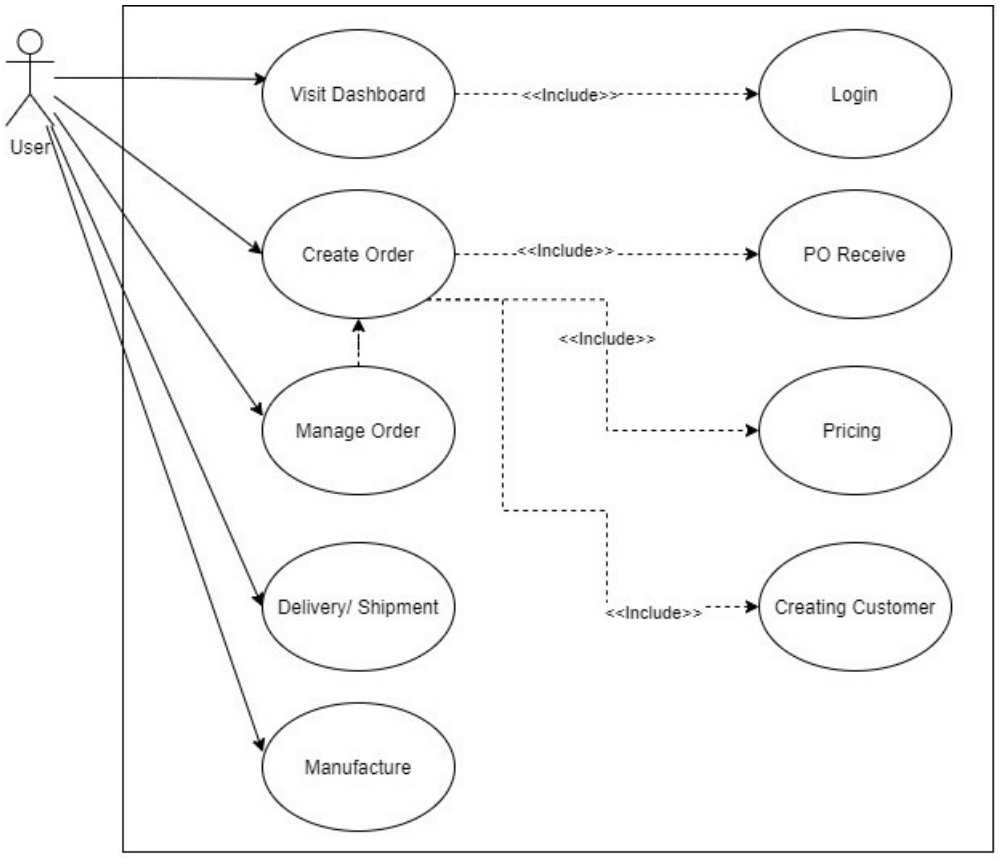

Figure 5.7: Use Case Diagram for ERP

5.3.5 Functional and Non-Functional Requirements

- **Functional Requirements:** A functional requirement[7] is a function or feature that must be included in an information system in order to satisfy the business need and be acceptable to the users. A functional requirement defines what an application and its components are and what these components are supposed to accomplish. The following functional requirements were gathered with our decided requirements gathering methods. The inputs, processes and output are discussed below:

  1. The authentication system validates the entered applicant's name, email and unique password upon receiving the information and logs the user into the app by creating an account.

  2. The system will generate unique ID for employees.

  3. Verification of those provided information are done by sending a verification email to the applicant from the system. After which the applicant would be able to login.

  4. The system will review if the inputted ID and password exists in the system or

not.

5. The system will request for a password recovery if the ID is found but password is incorrect.

6. The system will request for new account if ID is not found in the system's database.

7. The system will send a confirmation email to applicants after successfully creating accounts.

8. The system will let the employee choose different type of modules to work on.

9. The system will allow the applicants save their application to resume working on it later by clicking the button "Save Application"

10. The application will only be submitted after the verification of payment for the form through bKash or online banking.

11. The user's personal dashboard must always be updated to show what information is missing and what they would need to do to complete their tasks.

12. The system sends notification to the applicant when any updates are made.

13. The officers can search for the application by searching the username of the applicant or email.

14. The officers can also look up other officers to forward a task when required.

15. Admins will be able to add or remove employees in the system.

16. Admins will be able to update the template of the application form in the system and update policy when required in the system.

17. Geo-location based can record the applicant's location as well as information like the number of applicants and the verified applications for the report.

18. The application will have customizable sections to rearrange the dashboard form the default dashboard for each user to make it unique and more user friendly.

- **Non-Functional Requirements:** Another type of requirement is non-functional requirements[8]. A nonfunctional requirement is a description of the features, characteristics, and attributes of the system as well as any constraints that may limit the boundaries of the proposed solution. Non-functional requirements are briefly described below:

  1. Usability: The system is going to be user-friendly and aesthetically pleasing for the users.

  2. Maintenance: This system/app is going to be maintained 2 times in a year, it runs smoothly and does not get slow or lag. Any bugs or problems can be fixed easily.

3. Valid data: All the information being updated in the system must be accurate and consistent for the users to take.

4. Scalability: The system can be accessed from any devices like: Computers, Smartphone's. Apps for smart phones and an aesthetically similar web App for computers are developed.

5. Performance: Performance should always be smooth and easy to understand, such as searching and browsing for officers, submitting information and many more. These should leave a positive experience for users.

6. Service: Employees can use the system from all around the world.

7. Reliability: The system will be backed-up for safety reasons and will not hamper and data during this process.

8. Control: As the system is initialized by the government, privacy will be maintained strictly. It will be completely secured and will be checked by the developer's time to time for any sort of irregularity.

5.4 Product Features

5.4.1 Input

Login Page:

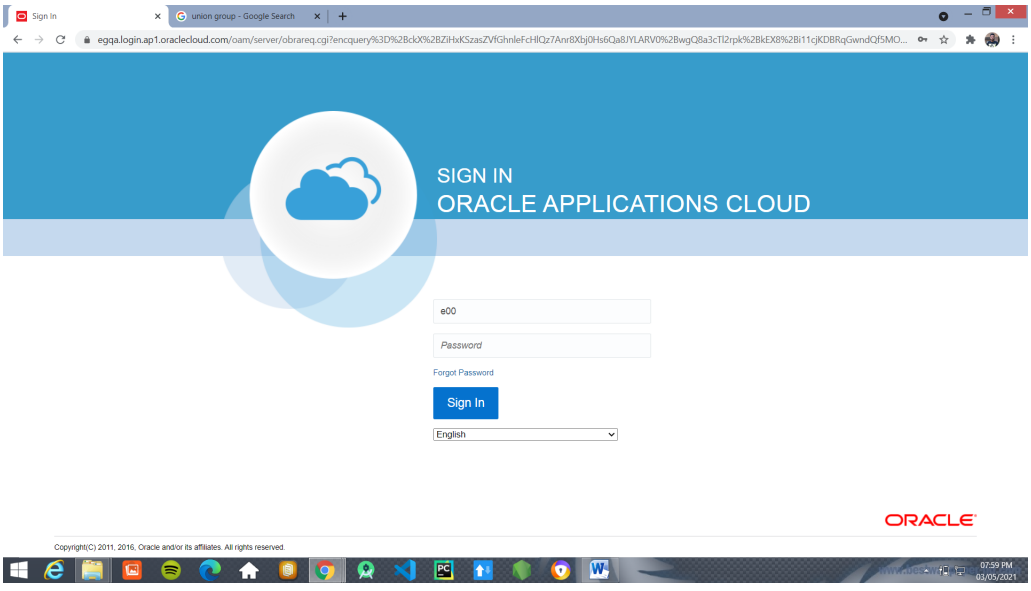

Figure 5.8: Login Page

Sales Order:

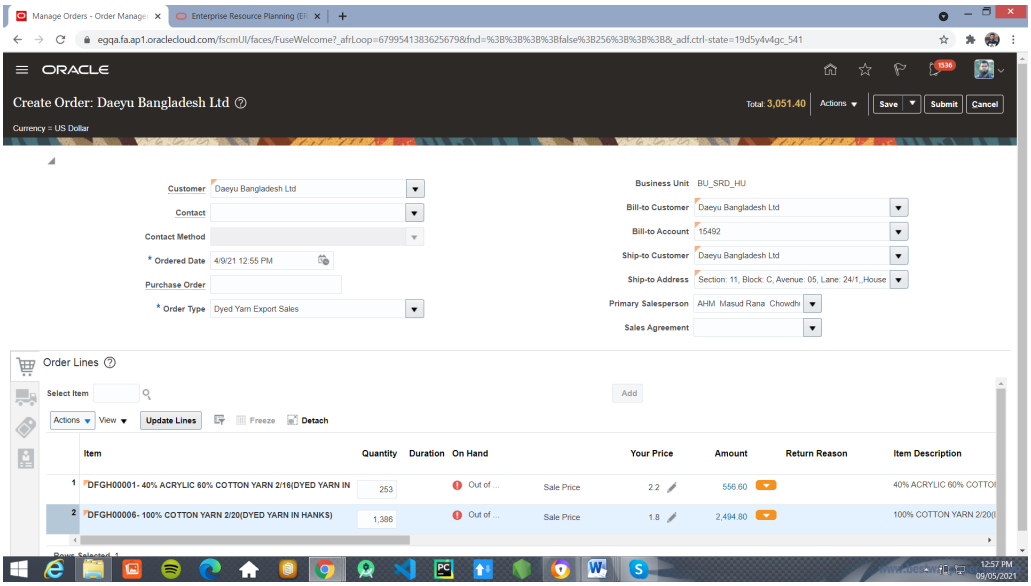

Figure 5.9: Entry of Sales Order

5.4.2 Output

Home Page:

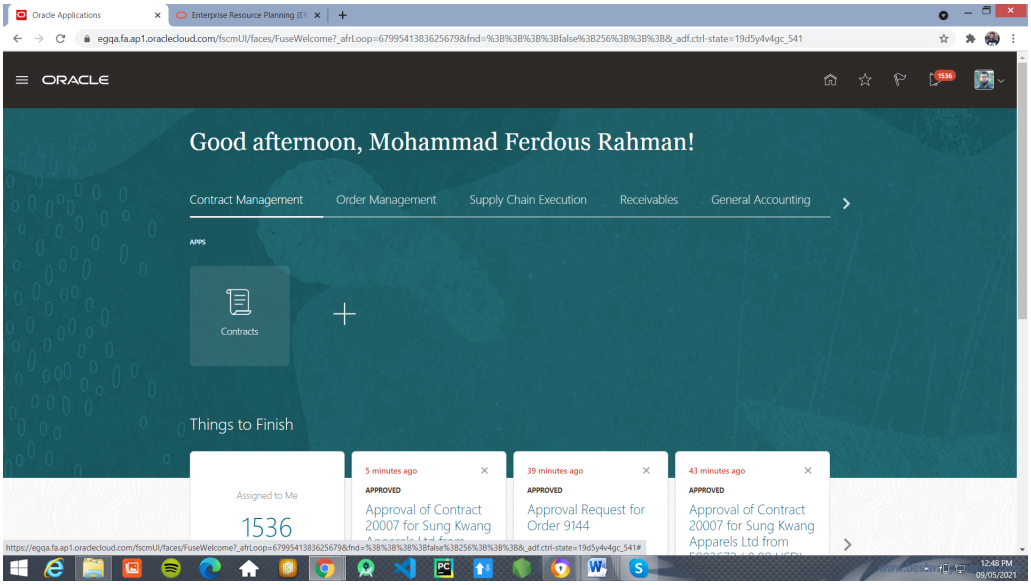

Figure 5.10: Home Page

Interfaced Sales Order:

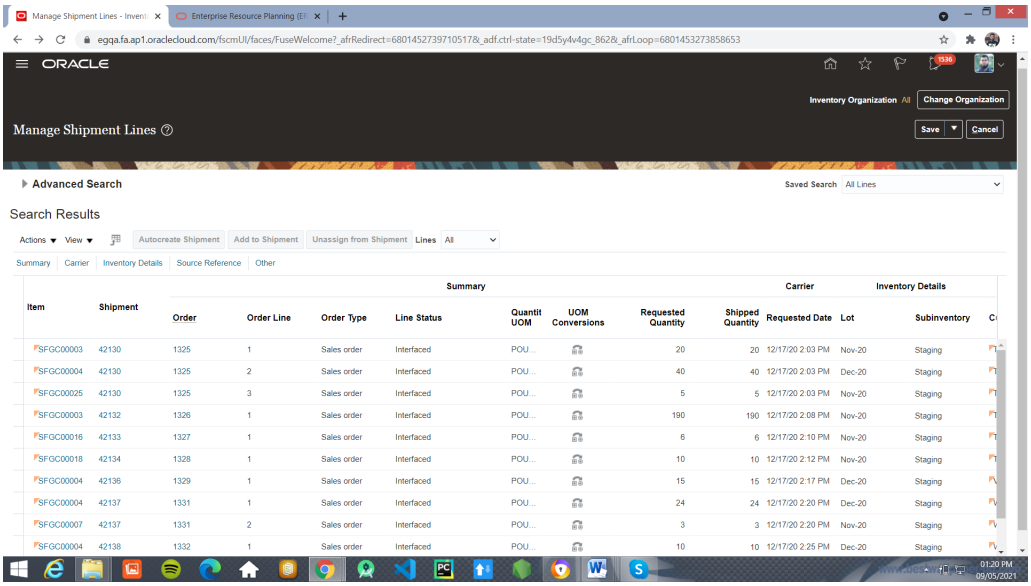

Figure 5.11: Interfaced Sales Order

5.4.3 Architecture

There are different types of architecture used in various systems. In our Oracle Fusion ERP system we used Three layers architecture[9] for the client server.

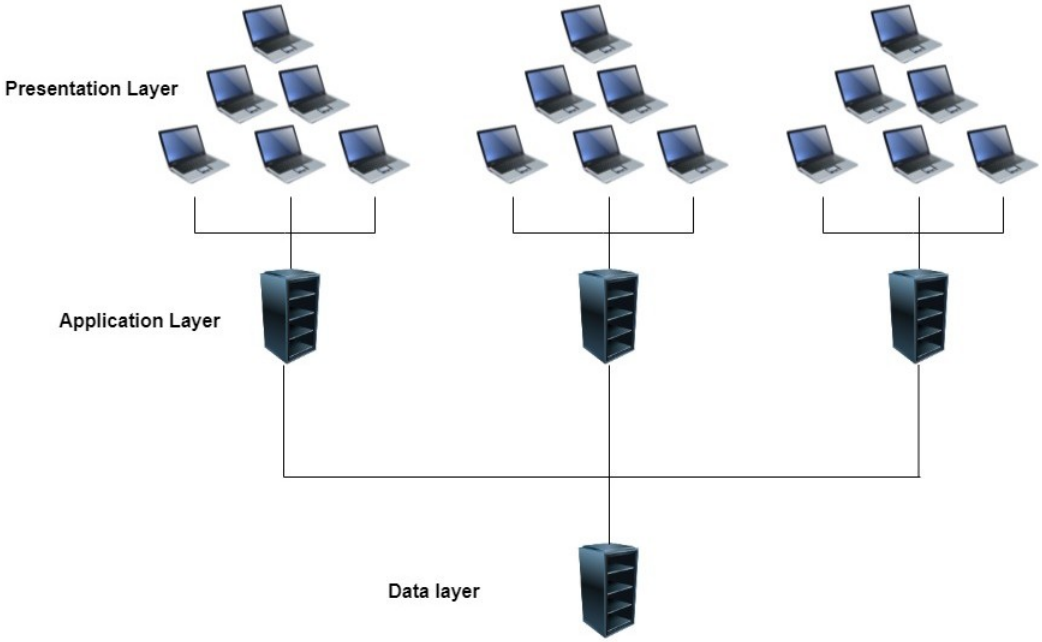

Figure 5.12: Client Server Architecture

Chapter 6

Results & Analysis

This chapter contains screenshots of the web application so it can be seen about how the actual application looks like.

Earlier on "Union Group" used in-house database and legacy software for every process. But it mess up everything cause everybody can't get required data in time. And it's a lengthy process. Taking data from one user and worked with that data then gave it to other users was really complicated. That's why they bought "ERP" Software.

"ERP" is an integrated software. It has lots of features. But all the users can not access or use all the features. Every users has specific account with specific access. As an intern when i worked in Union Group i used some of Users account as i worked with them. Now, i am going to show the screenshots of the application-

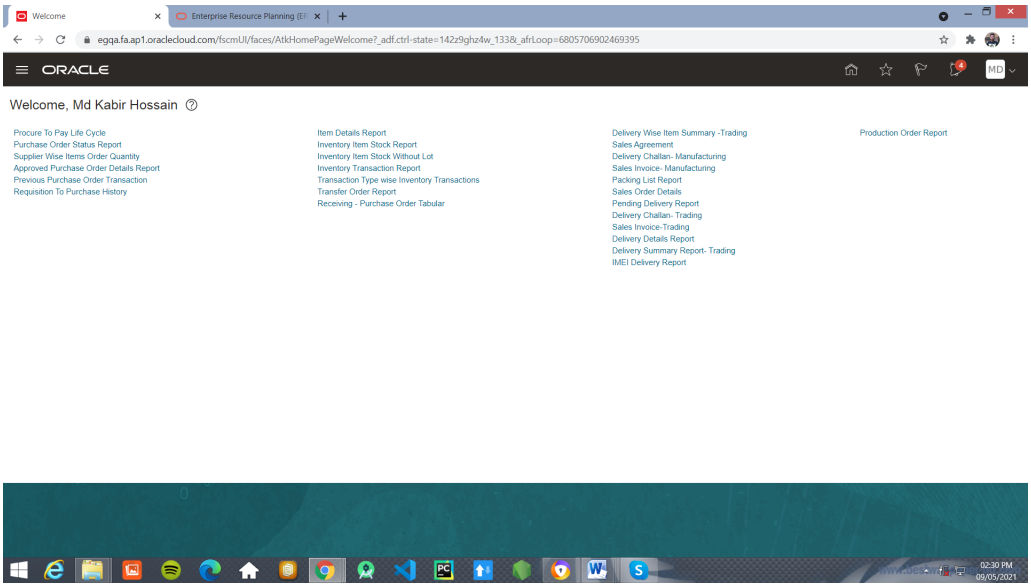

Figure 6.1: User Dashboard

From this dashboard the user can access the "Items Details", "Pending Delivery Reports", "Sales Order Details", "Production Order Report". I mostly deals with these modules from the dashboard to deliver and create order for a customer.

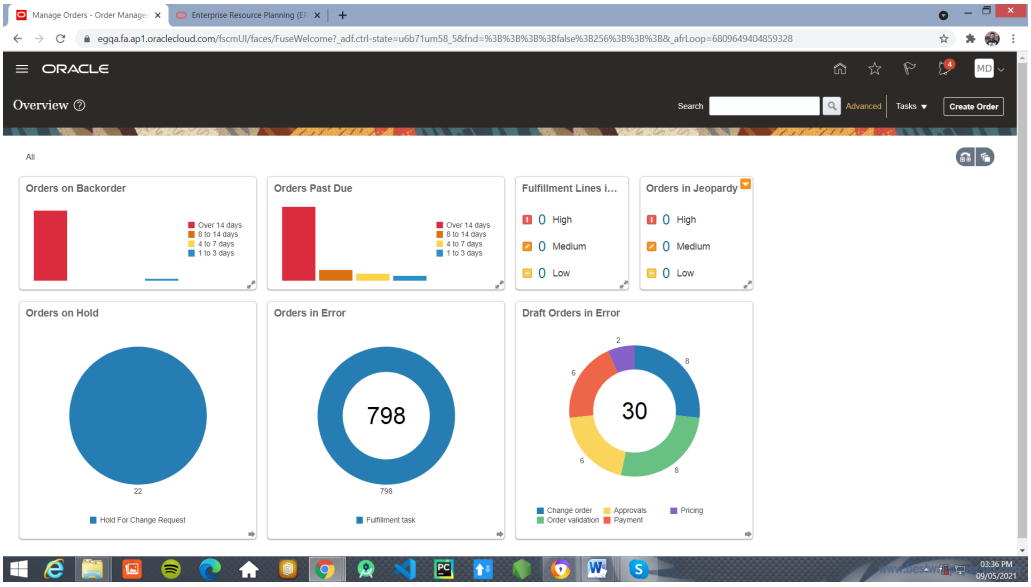

Figure 6.2: Order Management

In this section, User can see the overview of orders. How much order created, how much order approved, payment etc. From this page user can create an order. To create an order user will click on create order after that create order interface will come.

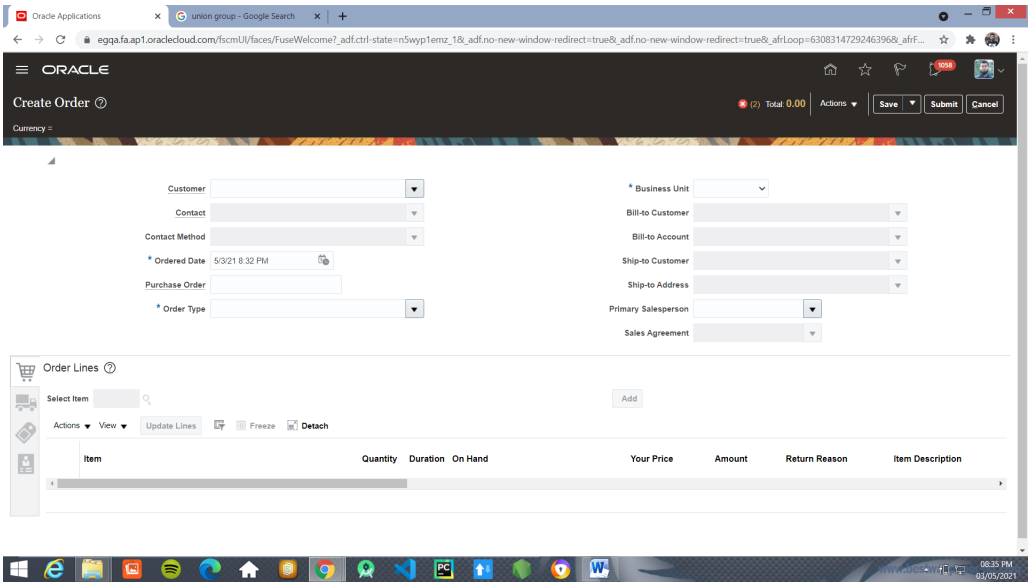

Figure 6.3: Create Order

After opening create order interface, at first user have to choose the business unit. As i mentioned before there are so many business unit in "Union Group" and for every business unit different customer were created. These customers gave the orders to our sales person with negotiation and from getting the data from the sales person User will create the order for that specific customer.

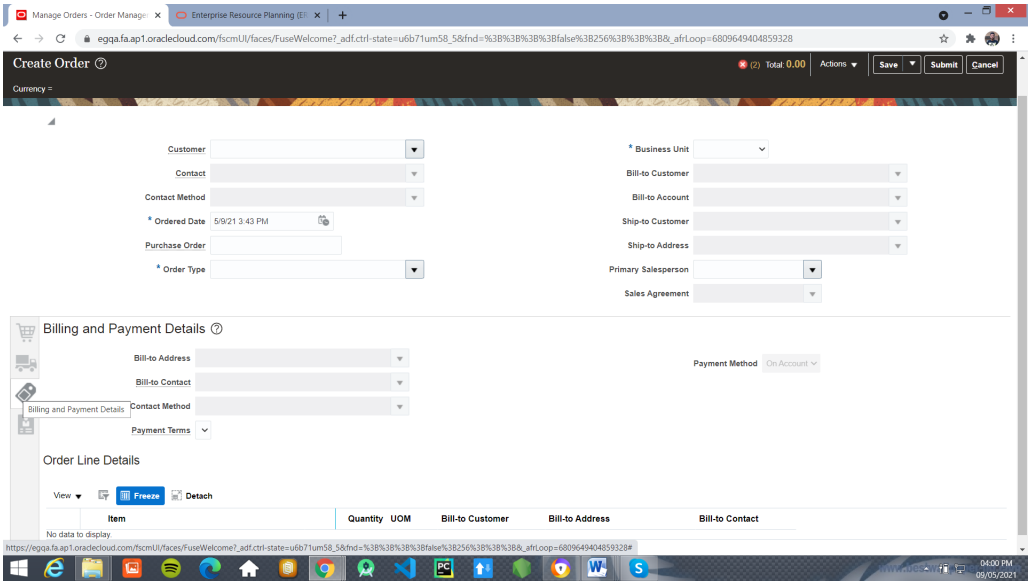

Figure 6.4: Payment Info

After giving all the details of order like product details with the quantity and the price user will click on billing and payment details to select the payment terms. After that user will click on submit button to create an order and the system will give an order number for this order. After that it will wait for the approval.

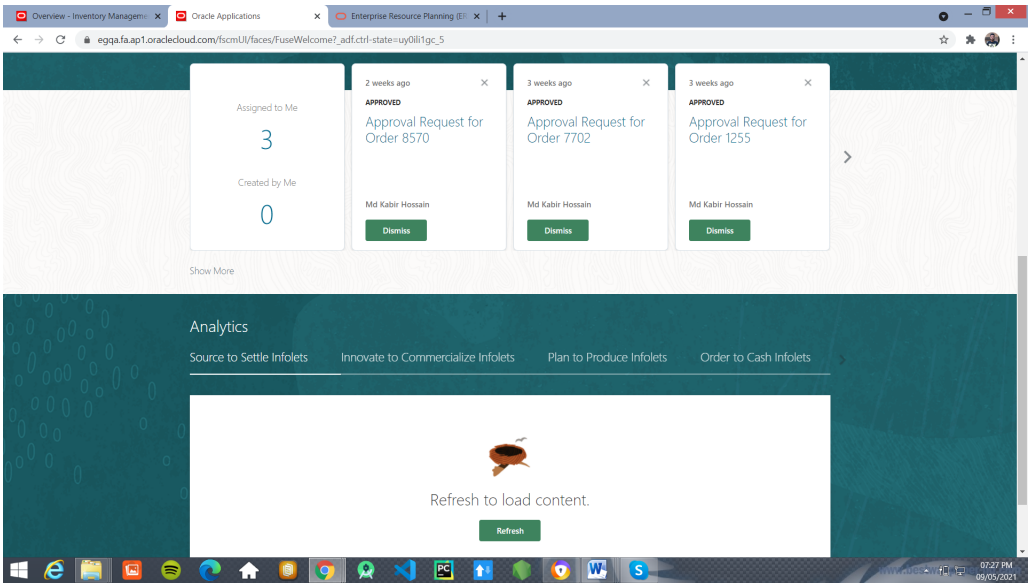

Figure 6.5: Approval Request

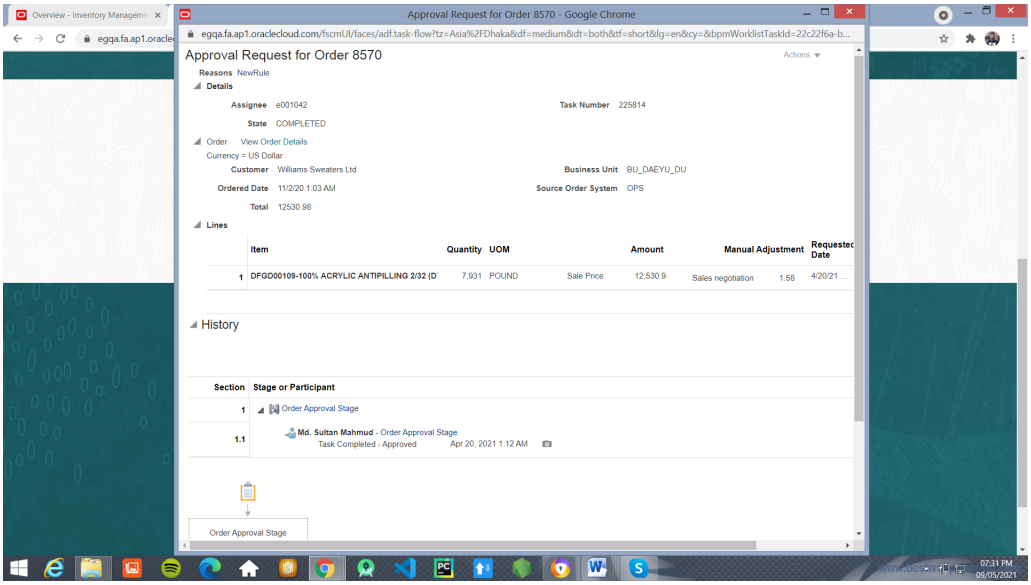

Figure 6.6: Approval Request-2

After the order is approved by the higher authorities, it will go to the production in charge. Then the manufacturing part will start. For manufacturing user will click on work execution from home page.

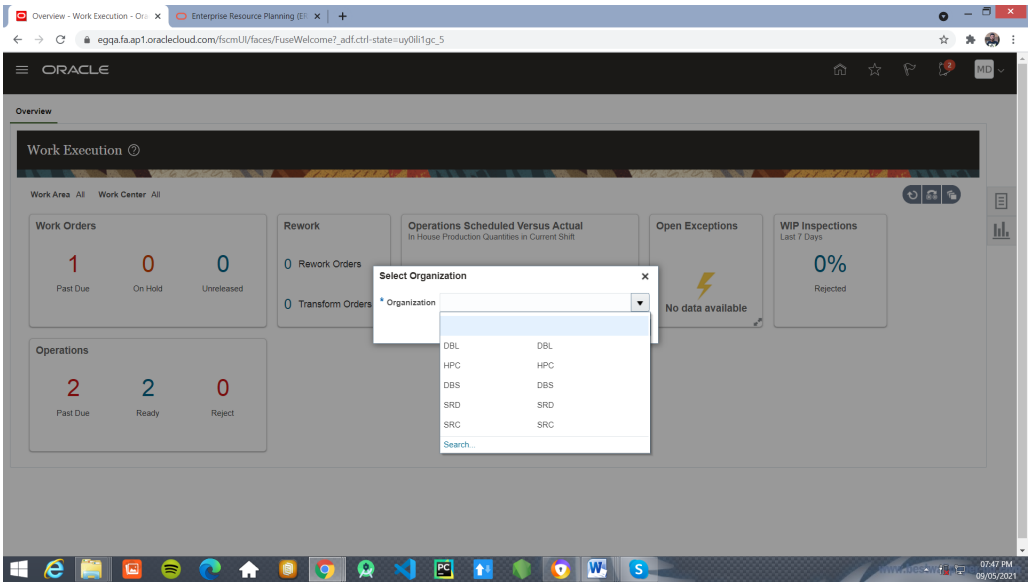

Figure 6.7: Select Organization

From this interface, user select the specific organization and then click on "Review Dispatch List".

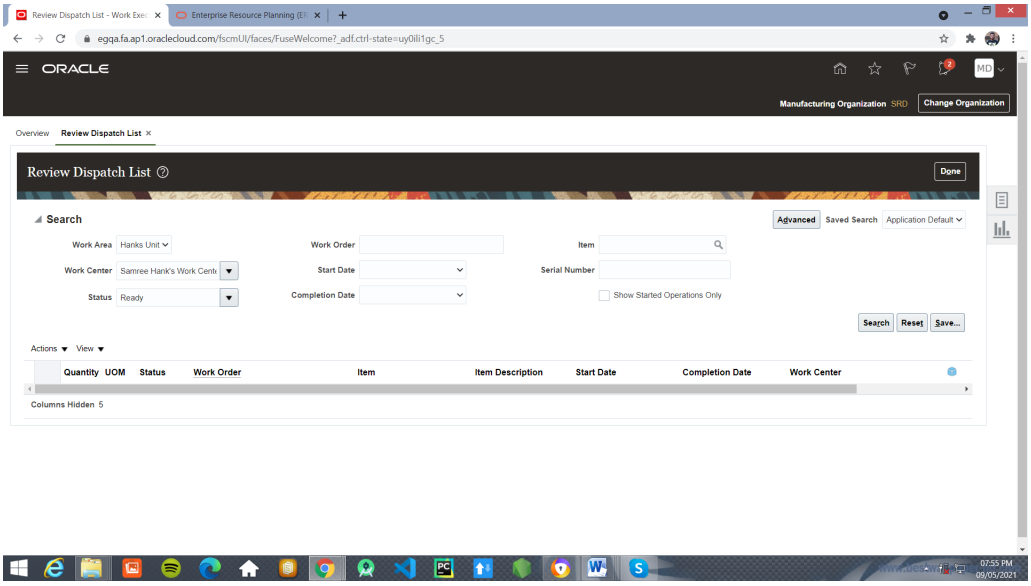

Figure 6.8: Review Dispatch List Screen

After open this interface, user search the work order number and then manufacture the required items and after that it will go to the factory in charge and complete the production.

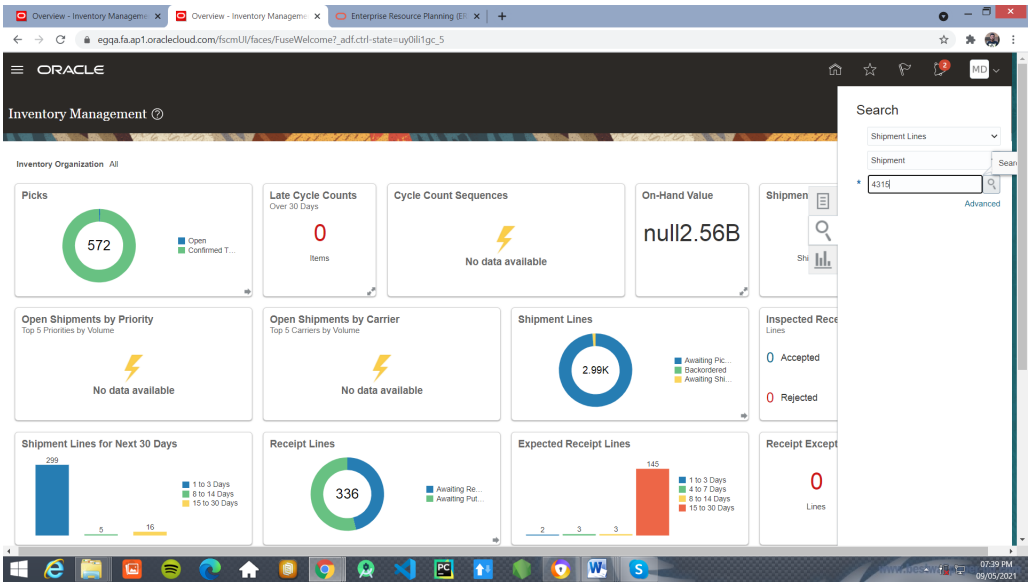

Figure 6.9: Inventory Management

In this "Inventory Management" page, user will select shipment lines from the Search option and search the order numbers for shipping.

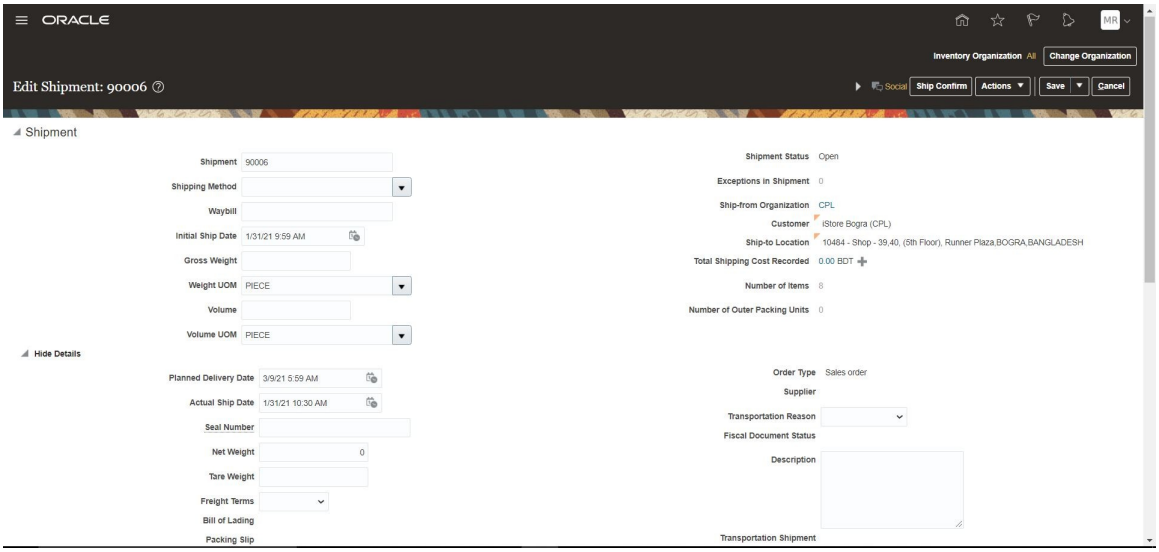

Figure 6.10: Shipment

After confirming the shipment, all the items will be shipped and will show in next interface.

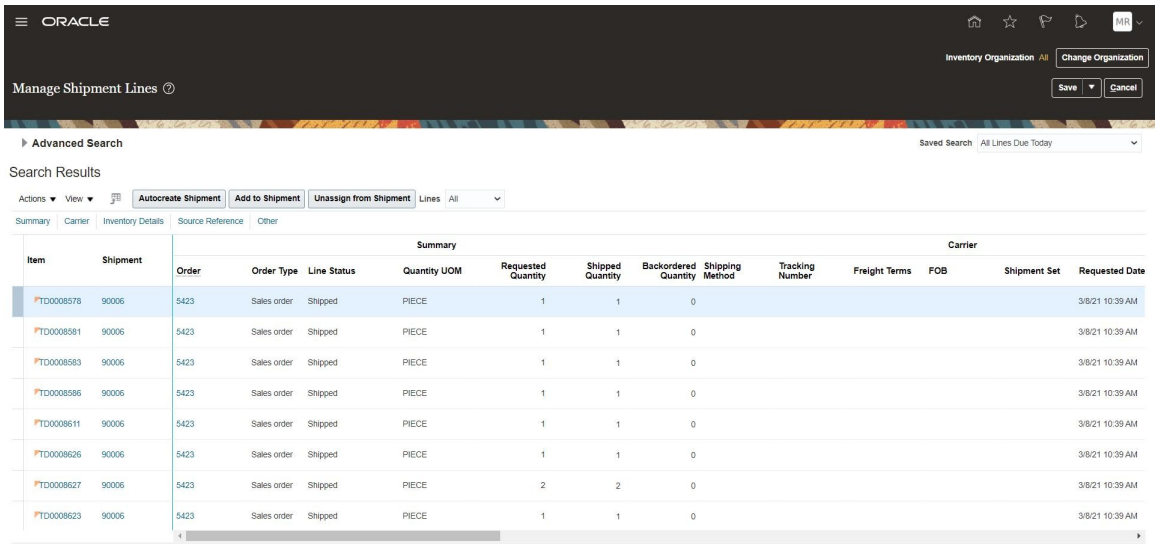

Figure 6.11: Complete Shipment

Chapter 7

Project as Engineering Problem Analysis

7.1 Sustainability of the Project/Work

Sustainability of the product[10] refers to its ability to be maintained and updated. In the modern world, every application being released needs to be maintained and continuously updated for its user base.

Oracle provides unique solutions that cover all aspects of IT and sustainable business practices, hardware, technology and applications, from cloud data centers to business intelligence to smart utility grids. It uses many of these same technologies and business practices within our own operations to reuse recycle and reduce. It encourages customers to leverage the Oracle Cloud, a more sustainable alternative. It also recognizes that there is always more to be done and look forward to contributing to building a new circular economy that promotes greater resource productivity. Moreover the software will be maintained and supported by a NTS team. It will be updated twice in a year according to the requirements of the customer's needs and all the bugs and problems are regularly updated. "ERP" has many more future planned features to be worked on and released. Taking core features from "ERP" and adding more ideas and features to it, another new project may also be planned and worked on. In conclusion, it can be said that the project is Organizationally Sustainable.

7.2 Social and Environmental Effects and Analysis

7.2.1 Social Effects

To maintain social responsibility, in 2010, the International Organization for Standardization (ISO) introduced an international standard that has some outlines which

show us regulations. We need to focus on these issues: human rights, labor relations, the environment, and corruption. The benefit of ERP software is it helps us to track applicants, even before they are hired, and continue documenting compliance for future evaluation. ERP system can handle risk management functionality and it helps us to identify risks and manages the creation of risk mitigation plans. ERP software is always able to document employee age to comply with child labor laws and it also takes the record of labor-management practices, training, and skill set of each employee. This helps to ensure labor and human rights. To corporate social responsibility (CSR) programs , Manufacturers are increasingly turning to IT. Organizations now understand the necessity to integrate and automate their CSR processes and information. They put a limit on their value so that ERP systems can help them to manage their CSR programs. ERP vendors are finding solutions to cover up all limits. It manages CSR activities within any functional area An internal control system based on a pre-existing ERP framework can centralize to get all information. We can support the sustainability of society through ERP systems. It aids us in measuring and monitoring tools to capture consumption data. Also, exploding material and overhead costs and dashboards to publish and share this data for all to use. The ability of ERP systems to support and measure the reductions achieved.

Covid-19 has created a great impact on our life. Because of this, we need to maintain social distance and work from home. This can cause great harm to our business. In this situation, the ERP system's ability to mitigate abrupt business changes is detected. The package resolution has perpetually competed for an important role to keep the whole business processes in restraint and expeditiously operative.

7.2.2 Environmental Effects

We believe that environmental ERP systems are utterly suited to massive or a lot of advanced corporations that try to manage their carbon footprint and property impact. In addition to enhancing data exchange and cutting prices through efficient knowledge management, EPR systems are progressively getting used strategically to make a competitive advantage. However, almost like ancient ERP systems, these software system tools tend to be a lot applicable for larger and/or a lot of advanced organizations, whether or not that complexness relates to the organization structure, the extent of rules, or the environmental impact of the company's operations or merchandise. Corporations that are smaller or tend to possess smaller environmental footprints wouldn't essentially

take pleasure in this sort of product. Whereas the environmental ERP software system doesn't give a competitive advantage itself, it permits the corporation to make competitive advantage ways in which might not are attainable with older strategies of environmental knowledge management. If a corporation aims to leverage the software system

for competitive advantage, different people should be concerned besides those with the responsibility to manage environmental problems. Shopping for environmental ERP systems is a fashionable venture. Consultants WHO are well versed in environmental and property best practices ought to be concerned. Most ERP systems give reports, dashboards, and analytics programs that will be wont to establish and evaluate downside areas among the corporate. As environmental ERP systems are still comparatively new, extra issues ought to lean to confirm the most effective probability of success in deploying a given software system resolution. One senior property manager provided the subsequent issues for corporations wanting to implement an environmental ERP software system. As the spread of covid-19 increase in the environment still ERP help us to work with full energy. We can run our business and plans with the support of ERP. It makes our working process easy and efficient.

7.3 Addressing Ethics and Ethical Issues

Ethics is derived from Greek and Latin phrases “Ethos” and “mores” which means lies individual and customs. Both the phrase combined and make the word that means how the individuals decide to speak with every other.

In this days all laws has some ethical principles, law and ethics are a ways from co-huge. Many acts which may be widely condemned as unethical aren't prohibited via regulation – mendacity or betraying the arrogance of a friend, maximum professions have extraordinarily specific and enforceable codes for his or her respective memberships. In some cases those are spoken of as "professional ethics", or within the case of law, "prison ethics". In global diverse international locations having the associations of ethics as keep with the career just like the yank medical affiliation has the ideas of medical Ethics and therefore the American Bar association they need their e version policies of professional conduct. Other professions with codes include dentistry, social paintings, training, authorities carrier, engineering, journalism, real estate, advertising, architecture, banking, coverage, and human assets control. a number of these codes were incorporated into the overall law. All are probable to possess a couple of impact on judgments approximately expert behavior in litigation. Generally, failure to suits a code of expert ethics also can end in expulsion from the profession or a couple of lesser sanction.Since Ethics include moral choices of people in reference to other professional standards of acceptable behavior and rules for members of the profession. Therefore the difficulty s like like monitoring of electronic information and access to information, privacy and mishandling of knowledge and international aspects. All of those being broaden to digital networks, digital databases and, especially, geographic information systems. to seem in any case these requires a touch 'different ethical decisions. Although ERP information systems could also be objectively value-neutral, their implementation within a social setting is neces-

sarily burdened with ethical implications because these ERP systems reorganize the flow and control of knowledge with reference to information—and thus control —within the boundaries of association. New technology can have far-reaching and sometimes hard to forecast implications for a organizations that adopts such systems. ERP and concern business authorities will have prudence into the likely morale inference of an ERP implementation and should therefore have the chance to deal with possible ethical concerns beforehand to extend the accomplishment of an ERP implementation.

Chapter 8

Lesson Learned

8.1 Problems Faced During this Period

During my internship period at 'Union Group' i have learned so many things and gathered a wonderful experience for the first time in a corporate sector. As well as i have also faced some difficulties while working with the 'ERP' software. Those difficulties are,

- As an intern i don't have any previous experience how to deal with people in professional level.
- While working with the 'ERP' software sometimes I have faced some technical issues.
- Because of the technical issues it occurred waste of time.
- While creating the order we found some mismatched data so that we could not create the order properly.
- The software we used was in initial stage because of this reason sometimes the web page reload automatically and it create the issues of delay in work.
- While working with the data there was some calculations, if we miss any calculation it will mismatch the cut of balance.

8.2 Solution of those Problems

While there are problem there also have some solutions of that problems. Like that my above faced problems also have solutions. Those are,

- I was very conscious with my manner and etiquette.
- After the mismatched data problem occurred we were so careful while taking the data report.
- While my internship period though the software was not updated but hopefully the problem will be solved in future update.
- We carefully handled all the calculations.

Chapter 9

Future Work & Conclusion

9.1 Future Works

This Integrated software , "ERP" is still in its development phase. Oracle Fusion globally update their software quarterly in a year. There many more planned features that are to be added in the near future. Some of them are:

- Generate BI Report.
- Integration with legacy system.
- Additional web based tools.

9.2 Conclusion

During Internship we worked on a web based application called "ERP". It is an Integrated Software. In this application users can do everything what they need to run a business.

Working in Union Group as an intern has been an amazing experience. I have learned a lot about IT in Business. I had worked with so many experienced people and from them I gathered so many knowledge, information about corporate life and ideas about Business process while doing my Internship Program. Through this program I have been exposed to a professional life. Throughout my internship, I could understand more about the definition of a software engineer and programmer and also I learned a lot about the server system and I hope this will assist me in my upcoming career. During my project, I cooperated with my mentors and seniors to solve the challenges I faced. Moreover, the project indirectly helped me to learn independently, discipline myself, be patient, take initiative and the ability to solve problems. Besides, my communication skills have also strengthened as I had to give regular updates. I had face many problems while doing my internship but as I had so many helpful and flexible colleagues they help me to get

rid out of all hassle. This internship opportunity changed my perception to look into the development environment and Digital marketplace. I am very thankful and honored to work with this efficient people in such a wonderful environment.

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