

Fleet Management System Based on Oracle Fusion Cloud

Submitted By
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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
INSTITUTE OF TECHNOLOGY
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AHMEDABAD-382481

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Fleet Management System Based on Oracle Fusion Cloud

Major Project

Submitted in partial fulfillment of the requirements for
the degree of
Master of Technology in Computer Science and Engineering

Submitted By
Shubhangi Singh
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Guided By
Prof. Pooja Shah



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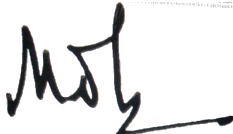
May 2021

Certificate

This is to certify that the major project entitled “**Fleet Management System Based on Oracle Fusion Cloud**” submitted by **Shubhangi Singh (19MCEC14)**, towards the partial fulfillment of the requirements for the award of degree of Master of Technology in Computer Science and Engineering of Nirma University, Ahmedabad, is the record of work carried out by him under my supervision and guidance. In my opinion, the submitted work has reached a level required for being accepted for examination. The results embodied in this Major Project Part-II, to the best of my knowledge, haven’t been submitted to any other university or institution for award of any degree or diploma.



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To Whomsoever It May Concern

This is to certify that Ms. Shubhangi Singh is an Intern of Evolutionary Systems Pvt. Ltd. from 18th January 2021 in HCM Practice. Her internship will end on 17th May 2021. She is undergoing training in Oracle HCM Fusion.

This letter has been issued to enable her to furnish her internship details to her college.

Thanking You

Yours Truly,

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Statement of Originality

I, **Shubhangi Singh, 19MCEC14**, give undertaking that the Major Project entitled “**Fleet Management System Based on Oracle Fusion Cloud**” submitted by me, towards the partial fulfillment of the requirements for the degree of Master of Technology in **Computer Science & Engineering** of Institute of Technology, Nirma University, Ahmedabad, contains no material that has been awarded for any degree or diploma in any university or school in any territory to the best of my knowledge. It is the original work carried out by me and I give assurance that no attempt of plagiarism has been made. It contains no material that is previously published or written, except where reference has been made. I understand that in the event of any similarity found subsequently with any published work or any dissertation work elsewhere; it will result in severe disciplinary action.



Signature of Student

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Place: Vadodara



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Abstract

Cloud services have flourished because of the cost savings benefits they offer, mainly because of the “pay as you go” service model. All of the data is stored in cloud data centers, not on the company’s premises. This reduces the investment an organization has to make to bring out and increase their business processes.

During my internship I came across and understood the Oracle Fusion instance which is one of the leading ERP software applications. Using Oracle Fusion HCM instance we learned how to map different business processes with the system. One such ERP solution which stands strong for multinational clients is ‘Fleet Management System’. Fleet management is used wherever there is a need to supervise fleet’s overall performance and fleet renovation in a good way to boom productiveness and assist an enterprise run as easily as possible. This may sound easy on paper and tally but there are certain limitations in the given scenario.

To overcome these limitations Fleet Management System based on Oracle Fusion is built. This project consist of three main processes namely Vehicle Registration, Vehicle Allocation and Invoice Generation. These processes run sequentially to allocate a vehicle to the user. Using this system employee can also track which vehicles are in use currently and for what purpose they are being used. Also this system is used to calculate the relevant invoice amount which depends on the type of vehicle and the amount of time it is being used.

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Chapter 1

Introduction

1.1 About the Industry

One of the main technologies in the world right now is Cloud ERP which takes all of the commercial enterprise techniques of a corporation even as unifying and integrating them right into a reliable, single and optimized system. All the data of your company can be saved on the cloud in the database system with minimal redundancy: all business processes can access this data, thus forming a connected automation system.

Oracle is a multinational organization dedicated to providing comprehensive solutions to different organizations. It gives cloud applications of numerous varieties consisting of ERP (Enterprise Resource Planning), HCM (Human Capital Management), etc. Oracle Cloud HCM is a whole solution together with the complete human resource process cycle from hire to retire which includes Talent Management, Global HR, Payroll and Workforce Management. It is also the most connected enterprise-level cloud solution that integrates HCM with finance, supply chain and customer service. ERP software is not only versatile, but also powerful.

Evolutionary Systems (Evosys) is an oracle platinum partner which provides Oracle Cloud Solutions to various organizations. Evosys specializes in the implementation and consulting of Oracle solution products (such as Oracle ERP Cloud, Oracle SCM Cloud, Oracle HCM Cloud, Paas Solutions (including customized solutions)), and covers many industries such as healthcare, logistics, finance, manufacturing and distribution companies across both public and private

sectors, providing them with world-class business solutions. It has clients across the globe including UK, USA, Gulf countries, Asia Pacific region, Australia, etc.

1.2 About the Project

Any organization that needs the operation of commercial vehicles is involved in fleet operations and fleet management. The goal of fleet management is to monitor the performance and maintenance of the fleet to increase productivity and make your business operations as smooth as possible. Fleet Management System would like to optimize the utilization and visibility of a fleet. It enables employees to submit requests for vehicles based on allocated project and time frame, which has been developed in PaaS and seamlessly integrated with the Oracle fusion. The Fleet system enables easy Vehicle Registration, Vehicle allocation and Invoice generation.

Fleet Management System targets to reduce the manual workload of soliciting for vehicles, monitoring worker requests and allocation via the best solution possible i.e. Oracle Fusion instead of another manual system. This project aims to overcome the limitations of the manual system by providing an extra layer of support and functionalities which is Oracle Fusion. Oracle Fusion uplifts the project by providing multi-level approvals, User Friendly Interface and cost-effective cloud services.

Chapter 2

Pre Requisites

2.1 HCM Fusion Cloud

Oracle human capital management cloud is a cloud based SaaS (software as a service) utility composing of 3 main elements particularly Global HR, Workforce Development and Talent Management. In terms of reliability and scalability oracle hcm cloud is very powerful. The system's objective is to be complete, personalized, intelligent and adaptable to robust business needs.

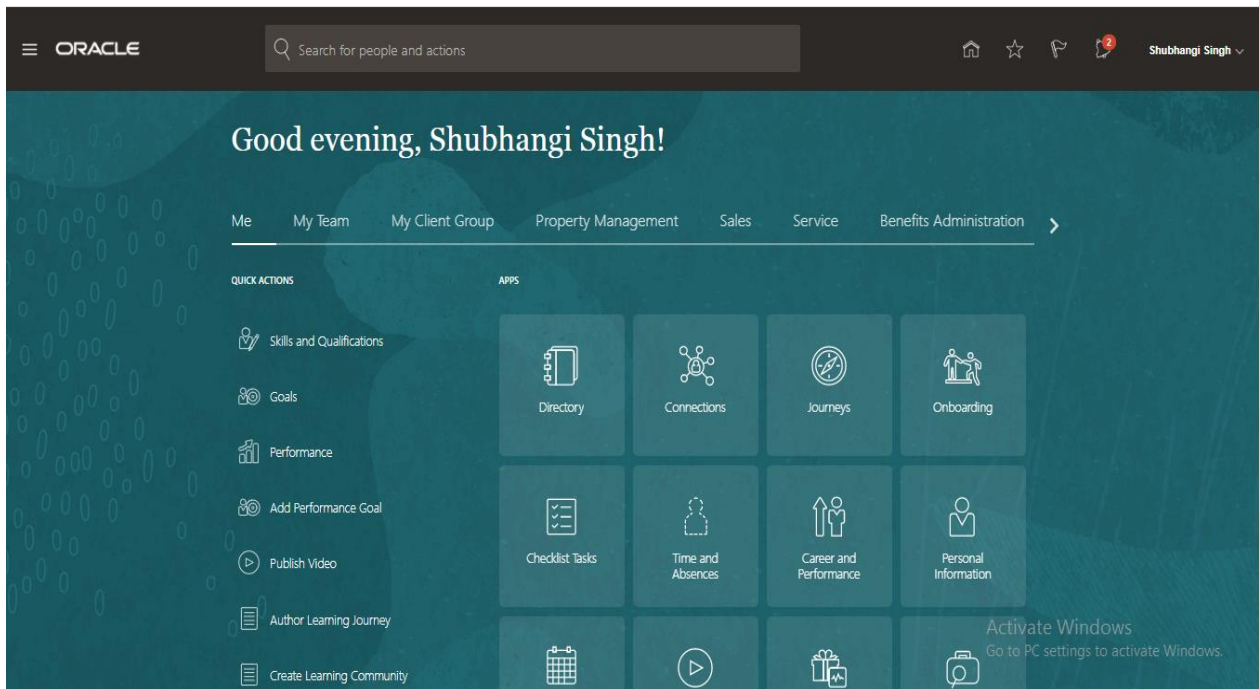


Figure 2.1 Home Screen of Oracle Fusion HCM

2.2 Geography Structure

Geography structure can be defined as the hierarchical representation of geography kinds for the country. It can range from Country, State, City, District, etc. Levels of the structure can represent a parent-child relationship. They are used to check the address of the employee. After defining the geographic structure of all countries/regions, when you enter the address of a specific location based on the selected country/region, the corresponding fields will appear.

2.3 Geography Hierarchy

Once the geography structure is defined, geographic areas can be added to the hierarchy of each geographic type. In this case, we have to fill in all geographic locations that are there in the geographic framework. The geographic hierarchy is used to automatically fill in the information. Because it can be identified by a postal code that helps in verification.

2.4 Enterprise Structure:

An enterprise can be described as a collection of organizations that come under a same management. In Oracle Fusion, the business structure is implemented using the organizational hierarchy defined by the organization. The enterprise structure includes all levels that exist in the organization. All these hierarchies can be achieved. The whole enterprise structure consists of different levels that can be defined as Divisions, Legal Entities, Business Units and Departments.

2.4.1 Divisions:

Divisions can be described as a business oriented segmentation that can depend upon different aspects like location, product or brand. For many companies it is important to separate them according to their strategic goals and targets. Their results are used separately, which is the main purpose of the unit. They divide the report according to the factors used to separate divisions. Another important use of these units is security. You added another hierarchy that can be used in the security. You added another hierarchy that can be used in the security profile of the organization to restrict the use of necessary organizational data.

2.4.2 Legal Entities:

A legal entity can be defined as an entity which has certain rights and responsibilities which is registered under the legislation. They are registered under certain state laws, responsible for the activities of various commercial and functional organizations, and must comply with the rules of the jurisdiction in which it is registered. Legal entities are supposed to have legal addresses as well.

A Legal Entity which employs worker can also be classified as a Legal Employer. And the legal entities which are responsible for paying the employees and for the payroll taxes and social insurance can be classified as Payroll Statutory Units.

2.4.3 Business Units:

A business unit is a part of a company that performs one or more business functions, and these business functions can be grouped together in a management hierarchy. One department can handle the transactions of many legal entities. Business units are somewhat similar to division but the only difference is in Oracle Fusion HCM business units are mandatory while divisions are not. An important aspect of business unit is that at this level entire workforce structure is defined. And that's how business units are responsible for separating the data from the personnel structure.

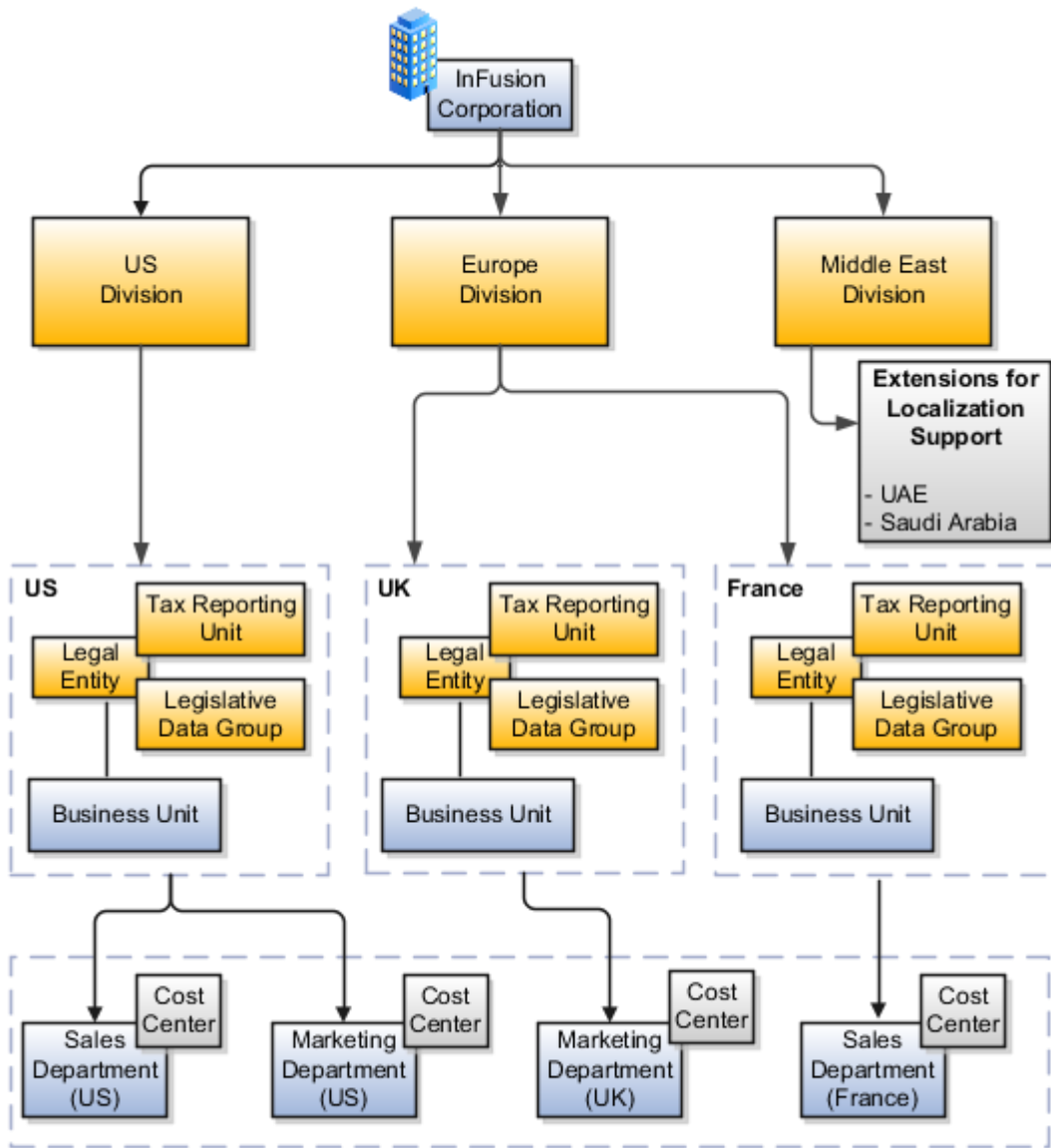


Figure 2.2 Business Unit

2.5 Workforce Structures

2.5.1 Departments:

A department can be defined as an organization with some defined tasks or responsibilities which are assigned to the employees. Departments are particularly useful because you can track the financial performance of the department through cost centers. Managers can be assigned to departments, and these managers have the primary responsibility for the department-related budgets and assets. As well as the management of employees in the department and their responsibilities, such as sales, R&D and human resources.

2.5.2 Locations:

The physical address of any workforce structure like department or a job is identified using location. Basically, the business is done here. They help decide whether an employee is eligible for certain compensation and benefits, depending on the employee's location. Add to third-party addresses, such as employment agencies, tax and insurance agencies, etc.

2.5.3 Jobs and Positions:

Job defines the general roles and responsibilities of employees. Jobs are identified by a valid start date, name, job set and code. This code must be unique within the set.

Positions define more specific roles and responsibilities of an employee. As positions are directly connected to the business units, they provide extra purpose. There is a function knows as position synchronization which fills all of the data related to a particular position. There is one more function that is provided by position and that is it consists of head counts and FTE (full time equivalent) which helps carry out distinct budgeting. For every position, a hierarchy can be made using its parent positions.

2.5.4 Grades:

Grades determine different levels of employee compensation and benefits. It can also be created for diverse additives consisting of salary, overtime, bonus, etc. Every organization might have very specific grading system according to their enterprise structure and it should be very precise

while implementing in the system. Grades are related to jobs and positions and both can have one or extra grades which are relevant to them.

Some grades consist of grade steps which represents increment within the grade. Each grade or grade step has a compensation amount defined for them known as grade rates. Grade rates can be fixed amount or it can be a range of values. These can be linked with all the components of grade like bonus, salary and overtime. Grade ladders define a sequence of grades and grades with steps to demonstrate the professional growth of a worker in an enterprise.

In the given figure, on the left side there is only series of grades present while on the right side there are steps within the grades.

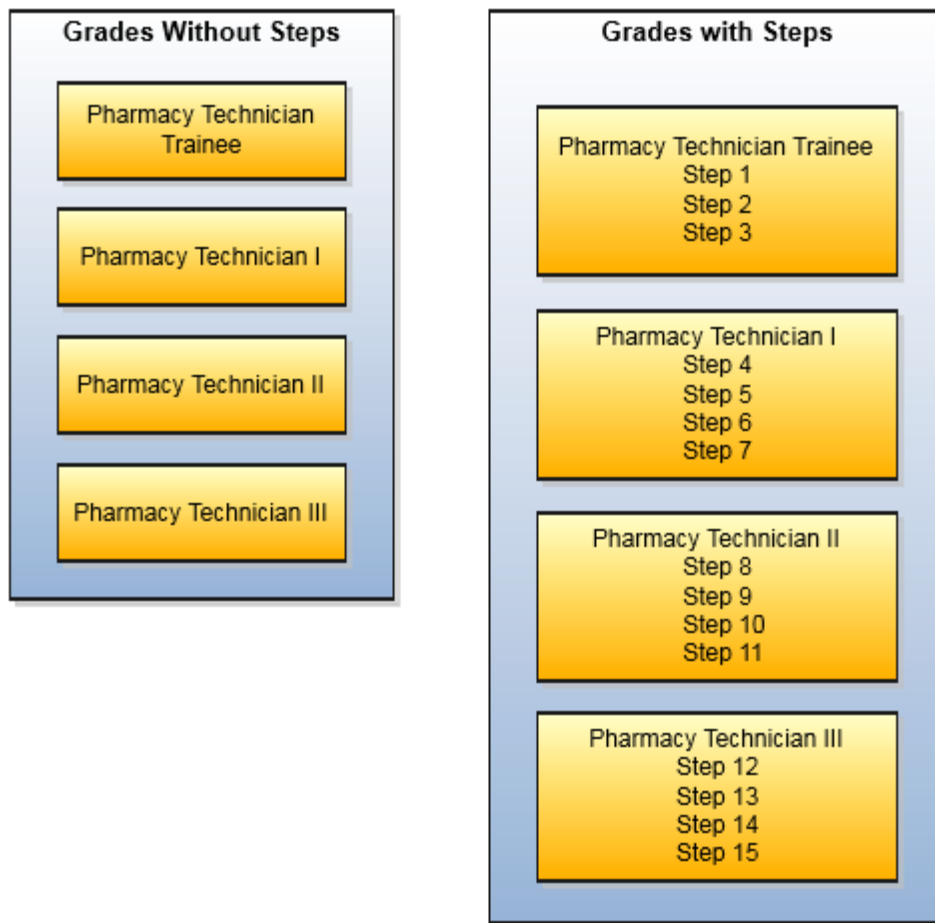


Figure 2.3 Grades with and without steps

2.6 Roles:

Roles are required to securely access data based on the permissions that specific employees have access to. In Oracle HCM Fusion, there are 4 roles namely job role, data role, abstract role and privileges. These roles define the main functions that can be performed in the system. Job roles are inherited by duty roles and aggregate privileges which define the user can perform which functions in the system. Data roles are made using job roles and security profiles and define the access to which type of data a user can perform transactions on. In this way, the job role determines which transactions can be performed, and the data role determines on which data these transactions can be performed.

2.7 Approvals:

Approvals are an important aspect of the organizational structure. They provide correct review process for business-oriented transactions. Oracle HCM Cloud provides a simplified approval process that simplifies the process for employees and managers. You can customize single, complex and multi-level configurations for more than 2,000 business issues using simple if-else rules. There are several types of approvers that can meet most business needs.

Approvals rules are created in the form of IF and THEN statements. IF defines the condition like when certain action is done or when certain conditions are fulfilled. THEN determines the approval chain like to which user the approval will go.

There are different types of approvers in Oracle Fusion:

- Management Hierarchy or Supervisory Hierarchy
- Users
- Approval groups, which you define in BPM Worklist
- Position hierarchy
- Representatives, who are workers with assigned responsibilities, for example Benefits Representative
- Application role
- Job-level based line manager hierarchy
- Self auto approve

2.8 Checklists:

A checklist digitizes the whole method of getting custom checklists for numerous commercial enterprise transactions which may be robotically or manually allocated. Standard processes like on-boarding are done using checklists. The Oracle checklist provides functions that allow you to track whether employees have completed assigned tasks, generate reports for them, and provide various functions, such as compliance profiles, completion conditions, task types for checklists and more.

Chapter 3

Fleet Management System

3.1 Introduction:

Any organization that needs the operation of commercial vehicles is involved in fleet operations and fleet management. The goal of fleet management is to monitor the performance and maintenance of the fleet to increase productivity and make your business operations as smooth as possible. Fleet Management System targets to reduce the manual workload of soliciting for vehicles, monitoring worker requests and allocation via the best solution possible i.e. Oracle Fusion instead of another manual system. It provides employees with a comprehensive dashboard user interface that allows them to view the status of their requirements, create multi-level approvals to verify employee requirements with accuracy, and because it is a cloud based system, it can easily manage thousands of such records. Compared with manual processes, the results are more accurate and provide a reliable and safe system.

3.2 Problems with the Conventional Approach:

In the digital age, most business processes have moved from paper to computers. The cloud system simplifies and automates all business processes, simplifies all tasks and improves overall productivity. An effective system can increase the efficiency of employees as special destinations. Continue to perform more important tasks and increase the productivity of the entire company.

The project aims to achieve this goal and develop a fleet management system that can effectively use and manage typical cars, private cars, airplanes and ships, while being fully integrated with today's Oracle ERP cloud system.

In the current system, they face major challenges in tracking the location of the vehicle, maintaining an effective vehicle history record system, and maintaining a safe vehicle management system. Even the failure of a single process or the loss of a data set can cause problems. Errors in the sequence of events can cause inaccuracies and make the system unreliable. The legacy system also makes it difficult to manage complex claims. Oral communication can be easily carried out to verify the needs of employees, and Oracle Cloud Fusion provides an in-depth claims system, which is essential in vehicle allocation. It is impossible to report and analyze thousands of records in the current system. This is another limiting factor in the current system.

3.3 Design and Flow diagrams:

The overall fleet management process is completed in a specific order, as shown below:

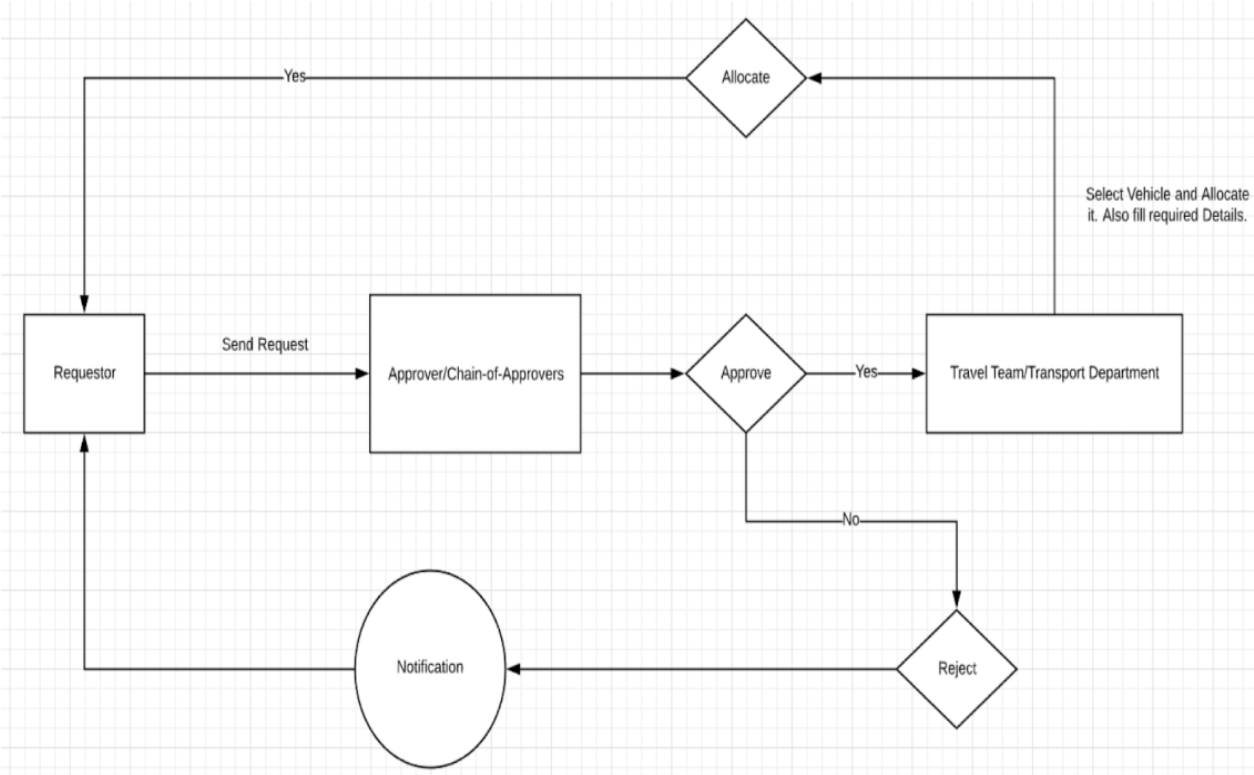


Figure 3.1 Flow Diagram

In addition, the following diagram shows the information flow at different levels of the organization.

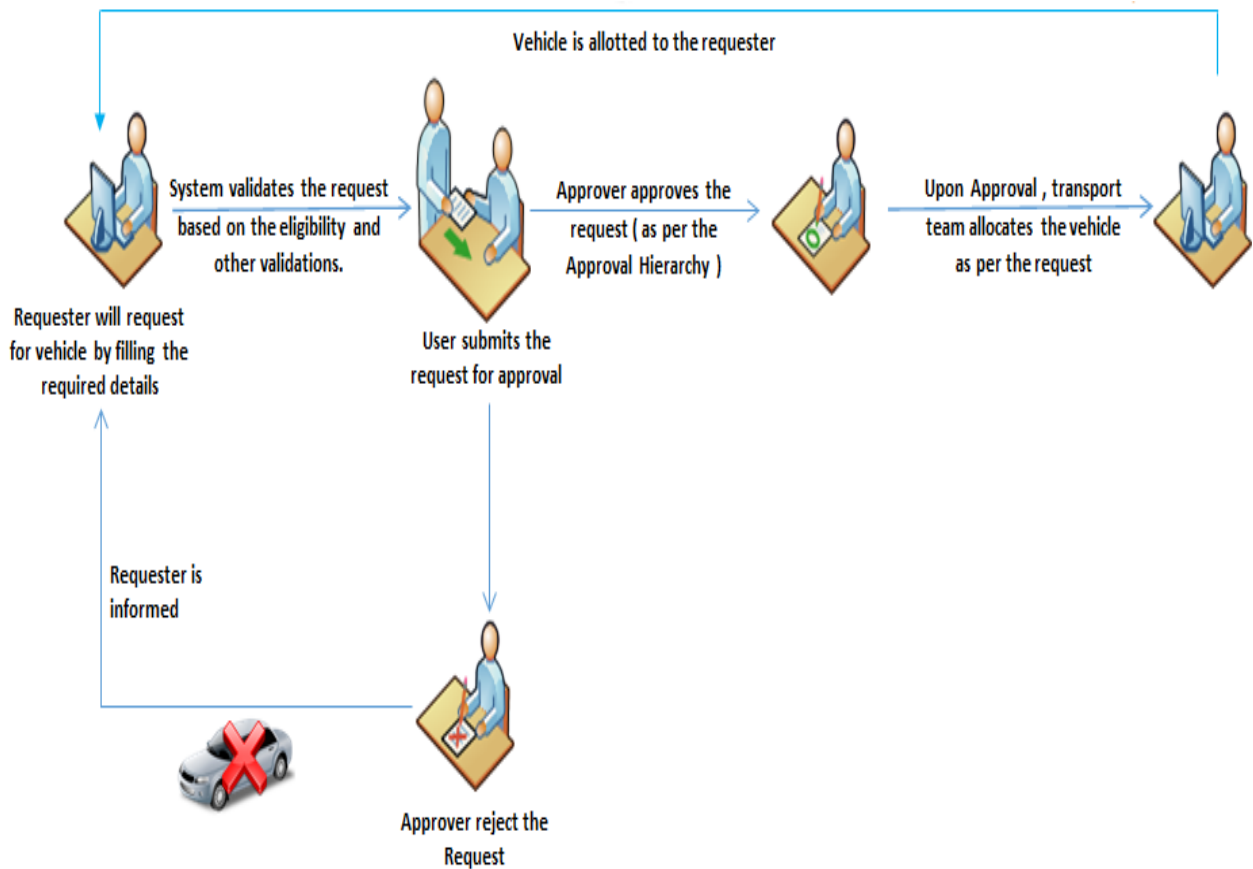


Figure 3.2 Overview of the Process

When an employee requests a vehicle by filling in the required data, the process starts here. After the system verifies the sent response, according to the approval chain used, the request is sent to the higher authority required for approval. If approved, the vehicle will be assigned to the employee. In any case, if the application is not approved, a notification will be sent to the employee.

The complexity of approvals also can be visible as though someone who's there in the approval chain isn't always there on the moment, he/she will delegate his function to some other man or woman running at the identical level.

3.4 Advantages:

1. Paperless and faster services compared to manual process
2. User friendly UI for Employees and Managers
3. Predefined business validations
4. Approvers are configurable and dynamic in nature
5. Simplify transport team operations
6. Project Manager/Business Unit head can have better view on fleet utilization
7. Turn Around Time (TAT) can be recorded and performance can be measured
8. Masters can be set based on business terminology

Chapter 4

Approach and Implementation

This system comprises of three main modules as shown in the figure 4.1.



Figure 4.1 Fleet Management Icons

4.1 Vehicle Registration:

When a company makes a new purchase, it needs to be recorded in the system. This is equivalent to hiring a new person in the organization. If you want to keep staff records, you must keep that record in the system. Vehicle registration works in the same way. Register your newly purchased vehicle. However, since we know how to use the database, we need to assign a primary key to it. This primary key ensures data consistency in the system and avoids redundancy or inaccuracy. In

addition, we can assign the vehicle and track it continuously. This unique identifier is required to manage account comments and reports.

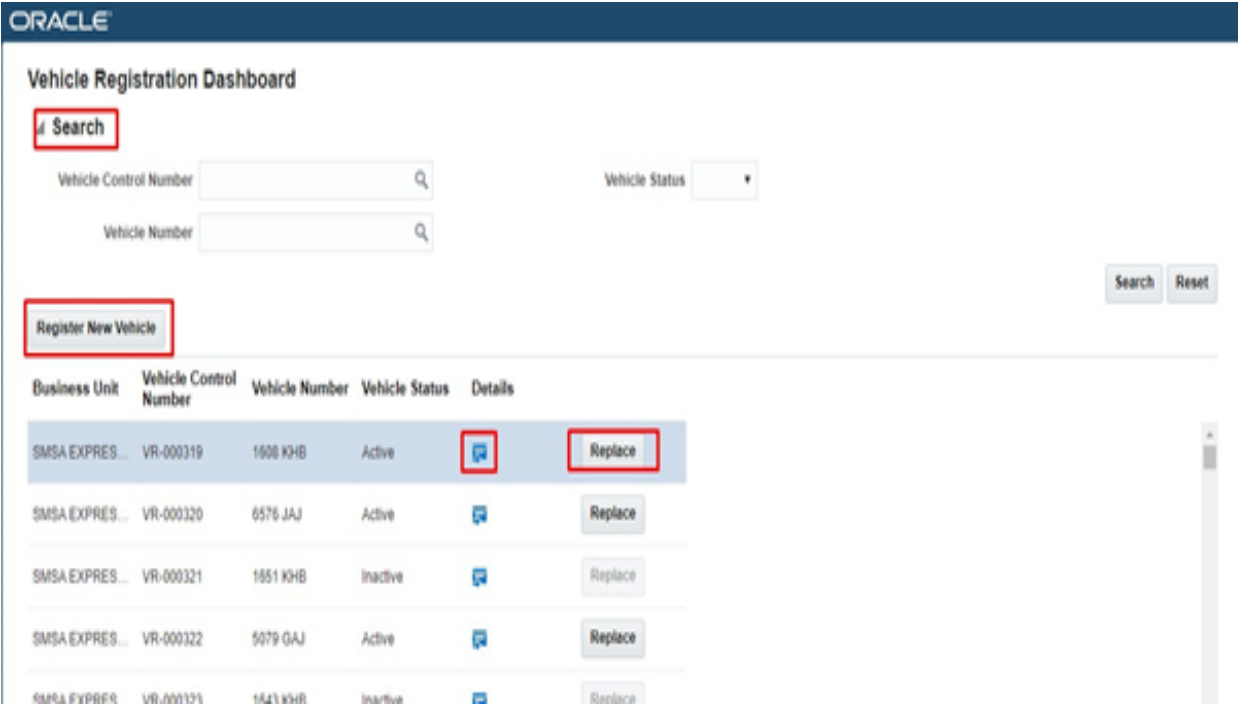


Figure 4.2 Vehicle Registration Dashboard

By default, a feature of ERP software is the business unit. It is the smallest unit in an organization divided by department. A vehicle control number is required to register a new car. This page allows users to search for specific vehicles and register new vehicles. In addition, you can also check which vehicles are currently active and driving. Therefore, only the "travel team leader" can access it. An employee can only access the employee's personal account, but not this page. The "Register a new vehicle" button will take the user to the transaction page. According to the selected programming sequence, the following fields will be automatically filled in on this page.

The screenshot shows two sections of an Oracle form. The top section is titled "PO Section" and contains the following fields: PO Header Number (3000245-SMSA PO-19), PO Line Number (1), Supplier Site (Jeddah), Item (7000007), Business Unit (SMSA EXPRESS TRANSPORT KSA (BU)), Item Description (TOYOTA-RAV4), PO Approved Date (3/2/2020), Vehicle Control Number (VR-003957), Supplier Number, Supplier Reference Number, and Supplier Name (RADEEN IT SOLUTIONS). The bottom section is titled "Contract Section" and contains: Contract Number (Radeen Fleet 1), Contract Start Period (1/15/2020), Contract Date (1/15/2020), Contract End Period (1/15/2024), Terms of Contract (4), and UOM (EA). The PO Header Number and Contract Number fields are highlighted with a red box.

Figure 4.3 PO Section and Contract Section

In the last screen of the registration page, all vehicle related details needs to be filled by the fleet department. The details which are required for the registration can be added on this page as per user requirements.

The screenshot shows the "Vehicle Details" section of the Oracle form. It contains the following fields: Vehicle Number (0403 MAR), Vehicle Start Date (3/4/2020), Vehicle Category (CAR), Vehicle End Date, Manufacturer (TOYOTA), Remarks, Vehicle Model (RAV 4), Istimara Expiry Date (3/31/2020), Vehicle Color (Blue), Chassis Number (1), Transmission Type (Automatic), Vendor Vehicle Reference Number, Manufacturing Year (2020), Fuel Type (Petrol), Lease Amount (2000), Budget Amount (1), and Kilometer Reading (1).

Figure 4.4 Vehicle Details

Vehicle Category, Manufacturer and color can be actually also used to search and separate different types of vehicles.

4.1.1 Methods for vehicle registration:

Table 4.1 Methods for vehicle registration

Action/ button	Purpose	Method Name
Create	To register new vehicle received from supplier	goToAddEditFrag
Details	To veiw details of registered vehicle	goToViewVehicle
Replace	To replace already registered vehicle with a new vehicle received from supplier	goToAddEditFrag
Save	To save vehicle details and navigate back to dashboard	saveVehicleDetails
Back	To go back to the dashboard without saving any details entered in the page	goBack
Vehicle number change listener	To check if there is any other vehicle already registered with the entered vehicle plate.	vehicleNumberChangeListener
Vehicle number change listener	check if the entered plate number is in the provided format or not	checkVehicleNumberFormat
Common	To show any runtime custom error on page	throwErrorMsg

4.2 Vehicle Allocation:

After completing the vehicle registration, the user will be redirected to the vehicle allocation page. The vehicle allocation window provides the option "Assign a new vehicle" for new vehicle allocation, and "Change allocation" is for each situation where the existing allocated vehicle has

been changed. And correct the parts to make necessary corrections to the allocated vehicles. In the latter case, the user must find the vehicle and then make the necessary changes.

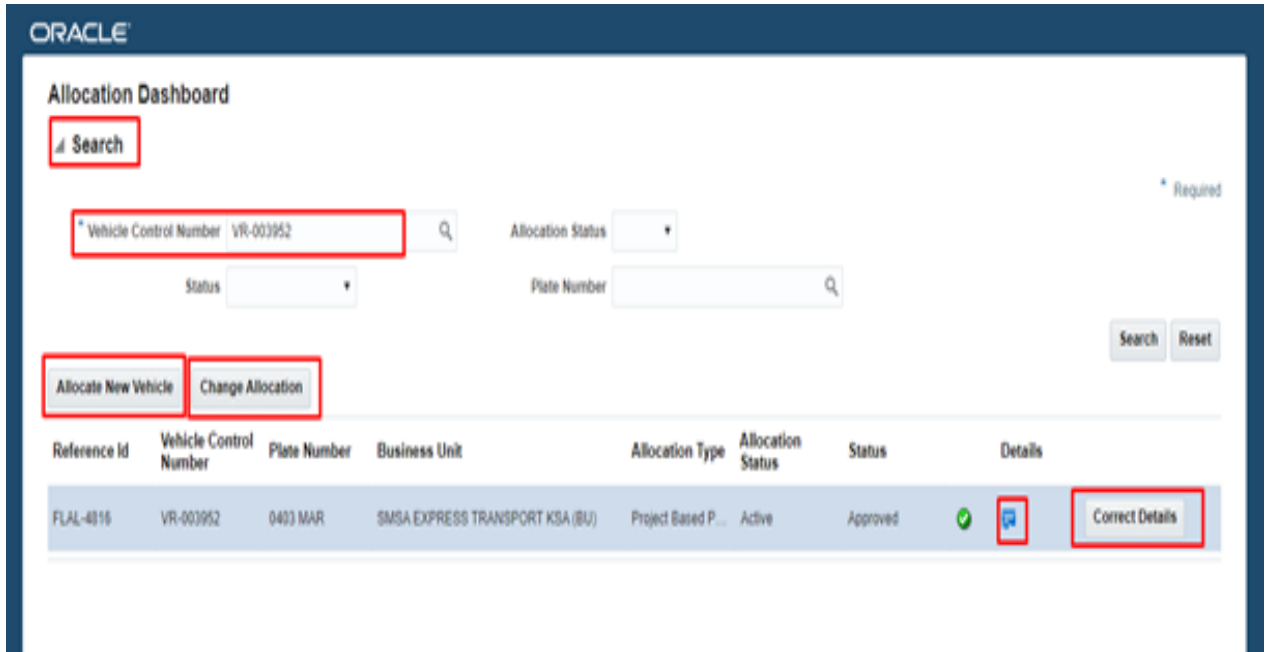


Figure 4.5 Allocation Dashboard

All information about the new allocation must be entered on the "Transaction" page of the "Vehicle Allocation" screen. Users need to find the vehicle control number of the car they are looking for, and then assign the car to them after the transaction. This is approved by the competent authority. The user needs to add more detailed information, such as department, allocation type, transaction type, etc.

Below is transaction page of Vehicle Allocation screen, for new allocation user need to search vehicle control no. first then they will assign vehicle to concern employee, department by selecting from allocation type & transaction type. In this case vehicle is assigned to Dept. by Company and it is with Facilities Management Department.

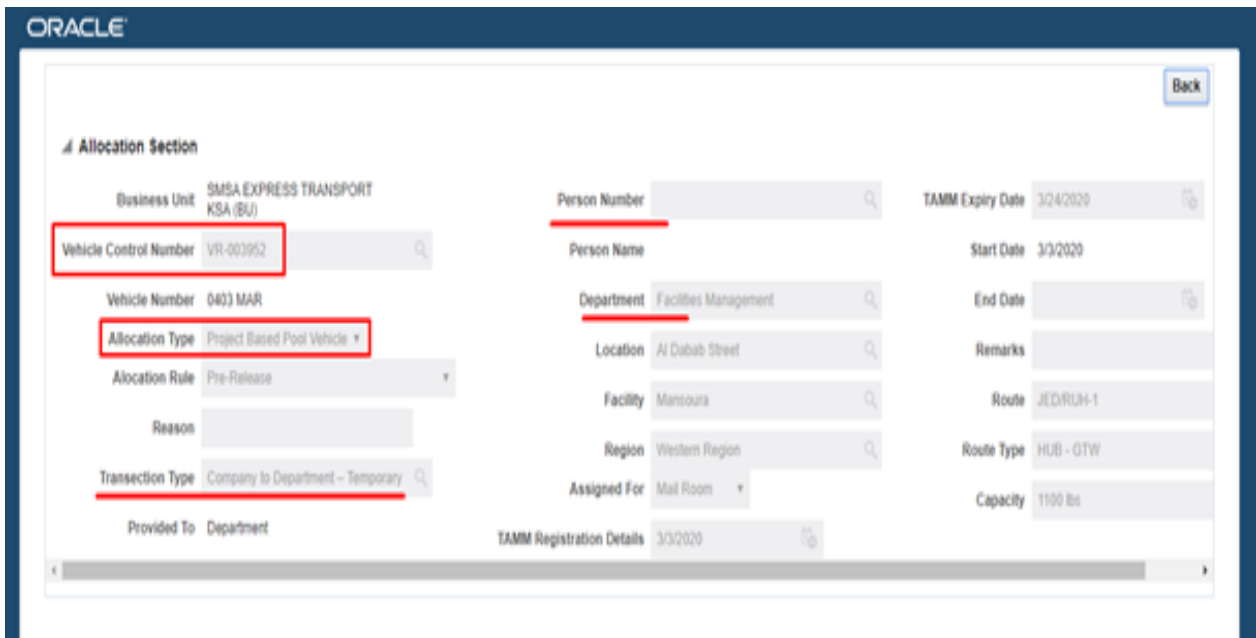


Figure 4.6 Transaction Page

4.2.1 Methods in vehicle allocation:

Table 4.2 Methods in vehicle allocation

Action/ button	Purpose	Method Name
Allocate New Vehicle	To allocate a vehicle for 1st time after the registration process on Vehicle registration is complete	callRequestCreate
Change Allocation	To change allocation of existing allocated vehicle	callRequestCreate
Details	To veiw details of allocated vehicled	callRequestView
Correct Details	To edit any mistakes in current allocation.	callEditDetails
Save	Complete process of allocation from here.	saveRequestDalogListener
Back	To go back to the dashboard without saving any details entered in the page	goToDashboard

Submit	Some transection requires approval from specific approvers. If no approver is required "Save" button will be rendered else "Save" button will be hidden and "Submit" button will be rendered. It is decided based on transection type selected by user.	submitRequest
Allocate Rule Change listener	Value in field "Transection Type" is dependent on "Allocation Rule".This method will populate values in transection type field.	allocationRuleValueChangeListener
Transection type change listener	To determine wheter this allocation will require approver or not is determined from here and hide/rendering of appropriate button is also handled	transectionTypeValueChangeListener
Submit	To notify approver by mail that action is required. Mail with the allocation details is sent.	sendMails
Approve (Notification page)	To approve current allocation, and to find next approver if any	approveRequest
Reject(Notification page)	To reject current allocation	rejectRequest

4.3 Invoice Generation

The invoice generation is a software package that runs concurrently with the vehicle allocation. Once the vehicle is assigned to a person an invoice is generated. The invoice depends on the type of vehicle and the time the vehicle is with the employee.

Below is the screen of Vehicle Invoice data, there are 3 types of invoicing that are done in the fleet.

1. Leased Invoice – For payment of Monthly Vehicle Rent
2. Non-Leased Invoice – For penalty to driver, employee for any traffic rule violation or any miscellaneous type things.
3. Debit/Credit Invoice - For any debit/credit related things.

ORACLE

Invoice Page

Search

Business Unit Invoice Type

Month Supplier Name

Create New Invoice

Search **Reset**

Reference Id	Supplier Name	Invoice Number	Month	Invoice Type	Status	Vendor Total	Details
INV-4827	AL-TAJ WOOD ...	INV/001	March	Leased Invoice	Submitted	4843.21	
INV-4665	LAFI R. AL-SUB...	23JAN20DB	January	Debit Note	Approved	337.05	
INV-4664	LAFI R. AL-SUB...	23JAN20NL	January	Non Leased	Approved	129.15	
INV-4663	LAFI R. AL-SUB...	23JAN20	January	Leased Invoice	Approved	348.6	
INV-4657	LAFI R. AL-SUB...	23JANCN	January	Credit Note	Approved	243.6	
INV-4656	LAFI R. AL-SUB...	23JANDN	January	Debit Note	Approved	221.55	
INV-4655	LAFI R. AL-SUB...	23JANNL	January	Non Leased	Approved	126	
INV-4654	LAFI R. AL-SUB...	23JAN LI	January	Leased Invoice	Approved	1242.72	
INV-4625	AL-TAJ WOOD ...	INV/03/CR/3000...	January	Debit Note	Approved	2100	

Figure 4.7 Invoice Page

Below you will find the transaction page of the vehicle invoice. The user must first select BU, the supplier, and then select the invoice type and invoice month. According to the selected month, the list of billable vehicles in that month is displayed to the user. And users can select/deselect the bank they want to settle according to the selection, and the amount will be automatically calculated.

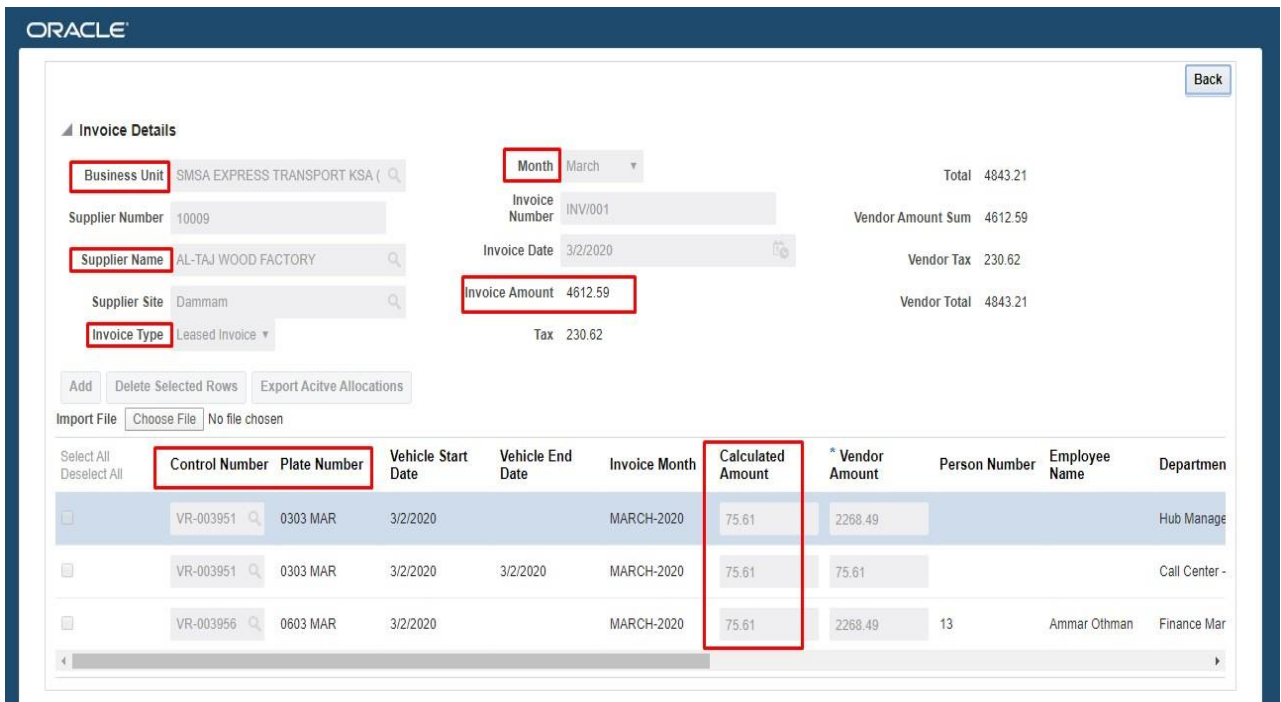


Figure 4.8 Transaction Page of Invoice

This is the side screen of the charge account.

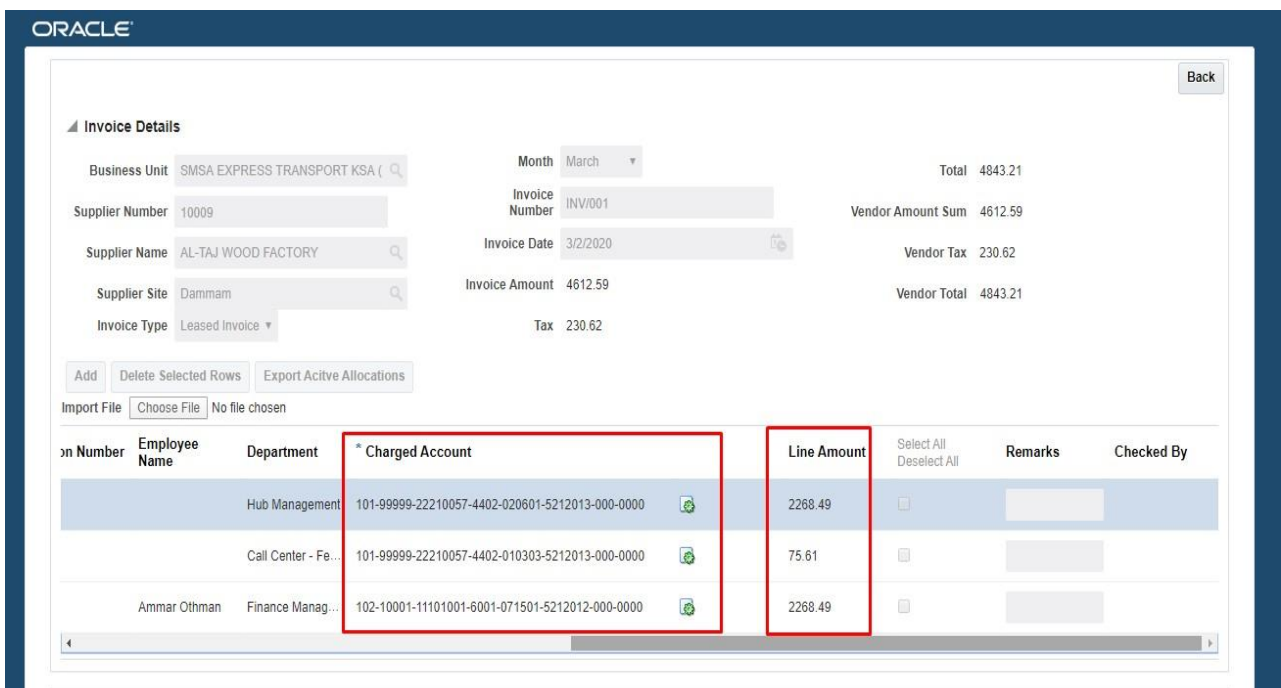


Figure 4.9 Side Screen of Charge Account

If users need to attach something to the supplier invoice here, they can attach it here. Each invoice is sent to the approver for approval. After the approver approves the invoice, they go to Fusion Payables for payment. The user xyz who created the invoice will receive the corresponding notification, can correct it and send it again.

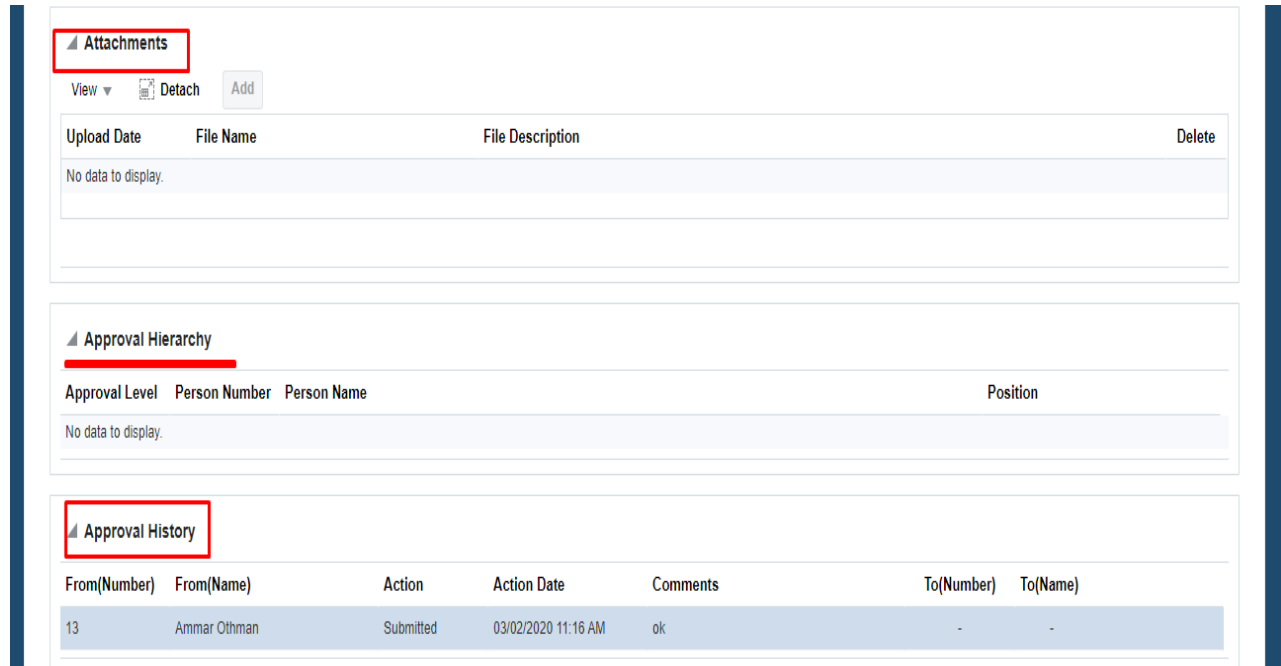


Figure 4.10 Approval Page

4.3.1 Methods for invoice generation:

Table 4.3 Methods for Invoice Generation

Action/ button	Purpose	Method Name
Create New Invoice	To generate invoice	callRequestCreate
Details	To veiw details of allocated vehicled	callRequestView
Save	Complete process of invoice	submitRequest
Back	To go back to the dashboard without saving any details entered in the page	goBack

Save For later	To save current transection as draft	saveAsDraftDialogListener
Month Change listener	To fetch all vehicle which were allocated in selected month of current year.	monthValueChangeListener
Month Change listener	To calculate leave amount to pay supplier based on number of allocated days.	calculateLeaseDays
Charge account change listener	To generate charge account, to determine for which to whom the charges are to collected from	chargeAccountDialogListener
Process To AP	To generate invoice in fusion	processToAPDialogListener
Approve (Notification page)	To approve current invoice, and to find next approver if any	approveRequest
Reject(Notification page)	To reject current allocation	rejectRequest

4.4 Fleet Notification:

The users can here view all the notifications relevant to the vehicles they had requested for.

The screenshot shows the Oracle Fleet Notification interface. At the top, there is a 'Notifications' tab. Below it, there are search filters for Status (set to 'Open'), Employee Name, Notification Date, and Request Name. A 'Search' button and a 'Reset' button are also present. The main part of the screen is a table listing notifications. The table has four columns: Reference ID, Notification Subject, From User(Name), and Notification Date. The data rows show various allocation changes and invoice approvals, all with a status of 'approved'.

Reference ID	Notification Subject	From User(Name)	Notification Date
FLRT-4888	Allocation Change for Sridhar has been approved	Abdalla Nour	3/5/2020
FLRT-4887	Allocation Change for Zaki Biro has been approved	Abdalla Nour	3/5/2020
FLRT-4651	Allocation Change for Zaki Biro has been approved	Sridhar	1/23/2020
INV-4623	Invoice Number - INV/01/3000199-SMSA PO-19 has been approved	Sridhar	1/21/2020
INV-4624	Invoice Number - INV/02/NL/3000199-SMSA PO-19 has been approved	Sridhar	1/21/2020
INV-4625	Invoice Number - INV/03/CR/3000199-SMSA PO-19 has been approved	Sridhar	1/21/2020
INV-4568	Invoice Number - ECHOSERVE has been approved	Sridhar	1/14/2020
FLRT-4562	Allocation Change for Ammar Othman has been approved	Sridhar	1/14/2020
FLRT-4562	Allocation Change for Ammar Othman has been approved	Sridhar	1/14/2020
FLRT-4526	Allocation Change for Zaki Biro has been approved	Sridhar	1/13/2020

Figure 4.11 Notification Screen

ORACLE

Approve Reject Back

Change Allocation

Business Unit	SMSA EXPRESS TRANSPORT KSA (BU)	Person Number	17	TAMM Expiry Date	4/30/2020
Vehicle Control Number	VR-003979	Person Name	Zaki Biro	Start Date	4/6/2020
Vehicle Number	7566 JEM	Department	Inventory Management	End Date	
Allocation Type	Vehicle	Location	Bahrain	Remarks	
Allocation Rule	Permanent Vehicle Transfer within Company	Facility	Riyadh Station	Route	
Reason		Region	Riyadh-Central Region	Route Type	
Transaction Type	Employee to Employee - Perm	Assigned For	Employee	Capacity	
Provided To	Employee	TAMM Registration Details	4/6/2020		

Approval Hierarchy

Approval Level	Person Number	Person Name	Position
1	22	Jubin Paul	
2	50	Abdalla Nour	

Approval History

Figure 4.12

Future Scope

Chat Bot:

- Within this system a chat bot can be configured which can help ease the use of this application.
- Chat bot is an AI based tool which can help users to interact and find something in the system easily.
- It can help the user to understand the steps which he/she has to perform for certain tasks.
- A user can see which vehicle is available just by putting a question in the chat bot.
- It can also be used by a user to see the invoice amount.

Conclusion

Cloud-based ERP systems can overcome many limitations of manual systems due to the low-cost cloud services they provide. The fleet management system integrated in Oracle Cloud Fusion always ensures that employees' requests are not ignored, lost or erroneously approved. This will solve most of the problems in the existing system and improve the functionality of the system. The additional support provided by Oracle Cloud Fusion takes fleet management to a new level. The three modules of vehicle registration, vehicle distribution and invoices have achieved the initial goals at the beginning of the project.

The micro-level functionalities that were tried to accomplish are:

1. Submission Requests.
2. Business Validations.
3. Multi-Level Approvals.
4. Vehicle Allocation and De-allocation.
5. Request for Replacement.
6. Notifications through Dashboard.
7. Email Notifications.
8. Reports on Dashboards.

It is important to note that we worked to implement an efficient and universal fleet management system that can store large amounts of company data in order to track all system-related activities and utilize Oracle Cloud Fusion.

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