
Software Requirements Specification

for

<Hybrid ERP Mobile Application>

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version
Jallepalli Prerna	16-09-2016	Initial Draft	1.0
Jallepalli Prerna	20-09-2016	Release Documents	1.1

1.Introduction

1.1Purpose: -

To build a hybrid ERP mobile application. The application will contain details about purchase orders. Authenticated application wherein only few roles will be allowed to update and delete the data other roles will be allowed to view the data rather than modifying it. The application will also contain details about sales orders and warehouse management. Due to update information regarding warehouse management, the departments dealing with it will make their lives a lot easier and can accordingly work.

The hybrid application helps our application to write the code once and can deploy it on any platform. Meaning our application is written just once, which will be compatible to any platform i.e., Android platform or IOS platform.

1.2 Document Conventions: -

Document is written in IEEE Software Requirements Specification format. The font being “Time New Roman” with a font size “14”.

Throughout the document, the bolded words indicate side headings, or in other words the topic about which is being described below. The abbreviation table is given below if in case of any usage. Diagrams have been provided to best understand the topic. Use case diagram is provided to understand the structure of software.

1.3Intended Audience and Reading Suggestions: -

This document is best recommended to stake holders i.e. our customer for referring understanding of our work flow, and our team members as a reference to pick up from the point we left the last. Or can be referred by any other team to take the project in any further advance level in near future.

1.4Product Scope: -

Since our product is completely for corporate, we plan according to their requirements. Our product focuses on warehouse management part where in the software products are stored and updated information is sent across. Any

product being used will be updated and the urgent requirements can be best understood and can be resolved soon enough.

The updating and deletion will be done according to the authenticated roles.

1.5References: -

HTML, CSS, JavaScript → www.tutorialspoint.com

Bootstrap (For Responsive UI) → www.w3schools.com

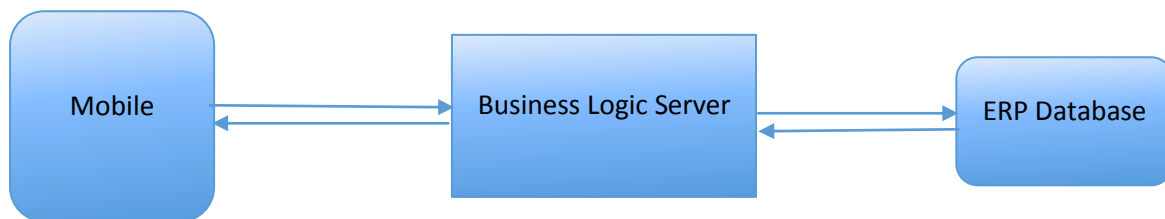
Warehouse management, Hybrid application → Wikipedia

Other documents sent by customer to best understand their requirements.

2.Overall Description

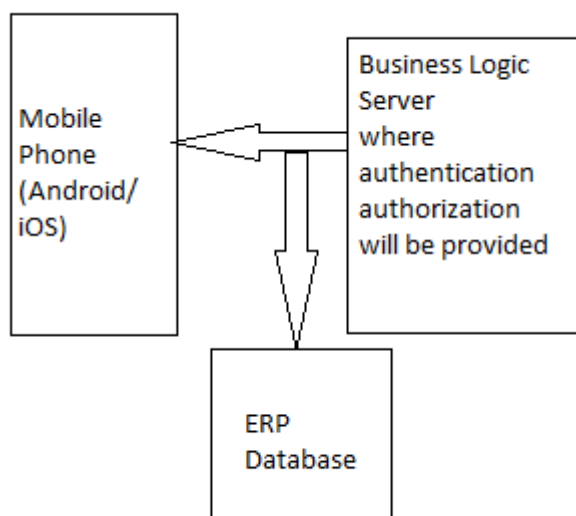
2.1 Product Perspective: -

Customer can login to purchase a no. of products and the database gets updated accordingly and reports showing status regarding sales and purchase order will be shown in rather updated version to the company viewers.



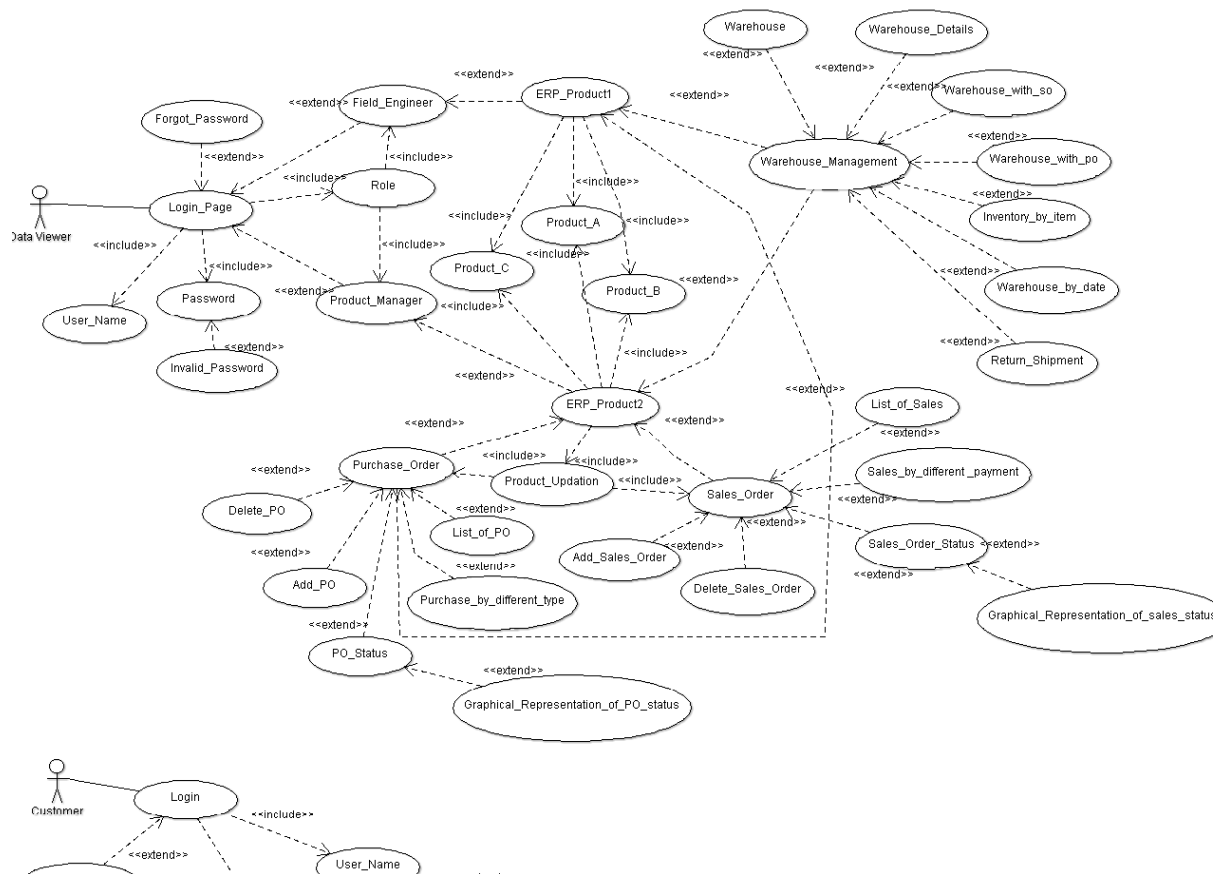
Interfaces are landed on mobile phone or any device from which the application is being accessed by request which is sent by the client first, in this case the client can be a customer, Product Manager who wants to update data or view the status of a particular PO, or Sales Order or can be Field Manager who wants to view the data. The request is then sent to Business Logic Server where according to the authentication details of the request, following interfaces gets loaded and then checks if the request is being made by an authorized user i.e., from database and if permits then the interface is given back to clients device.

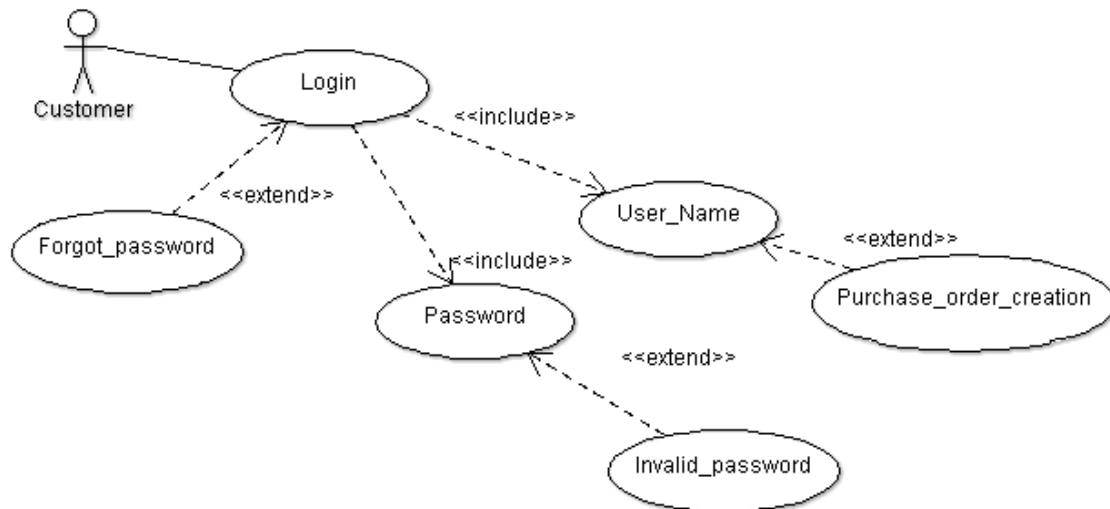
2.2 Product Functions: -



Our product is creating the Business logic server. We provide an interface on the mobile phone which will interact with the user and according to the details filled in, i.e., according to the role the user logs in different interfaces will be provided and different actions that will be provided. The authentication and authorization of different roles will be provided by business logic server and once a particular is selected then fetches the data from the ERP database and will then display on to the screen.

2.3 User Classes and Characteristics





The above are the use case diagram for 2 different scenarios when a customer makes a purchase or when a manager or field engineer makes changes to the database.

2.4 Operating Environment: -

- Our application is built on phone gap as it allows hybrid application, “write once and deploy on any platform”.
- The database that we create will be MySQL database as it is open source, the ERP data will be stored in it.
- Tomcat server where the host the server app for interaction with the database.
- Chrome or Firefox browsers will be required.
- Devices i.e., Android and IOS for testing purposes. As the application is and must run on all the platforms or any of Mobile Operating Systems.

2.5 Design and Implementation Constraints: -

The database for our project will be provided by the customer, so there may be constraints while connecting our application with the database.

Database must be protected by the application by any sort of unauthorized processes which may lead to corruption of data and losing of data.

2.6 User Documentation: -

As part of the project, the following are the documents that are going to be provided:

- SRS → Software Requirement Specification (current)
- Development Matrix
- N*N Requirements Matrix
- Use Case Diagram

Other documents will be provided eventually.

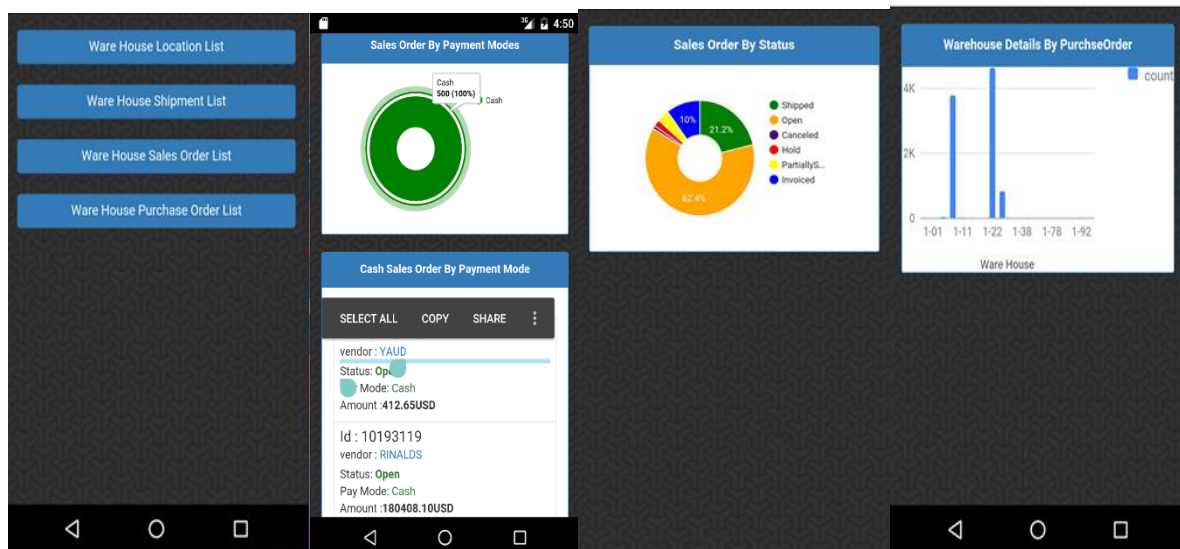
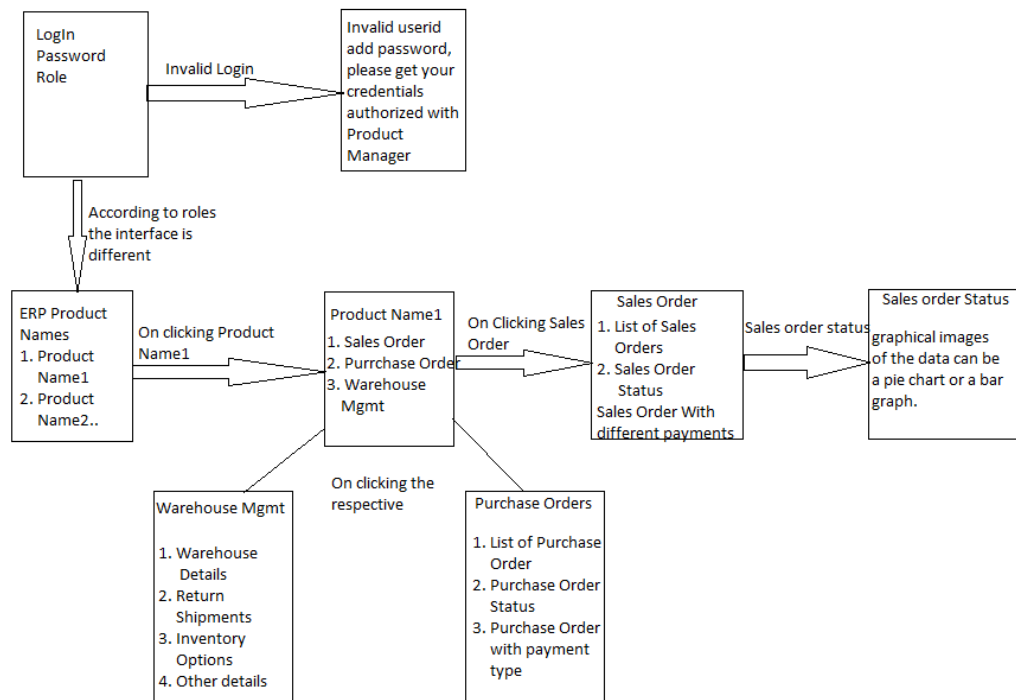
2.7 Assumptions and Dependencies: -

The project is worked out according to the customers' requirements, hence if customer is not satisfied with a particular intermediate outcome must make the changes soon enough to come up to their expectations.

The database is provided by the customer and hence the database schema and design is worked according to them.

3. External Interface Requirement

3.1 User Interfaces: -



Work flow of software has been explained above, and similarly above interfaces have been provided by customer and are the desired results that they require.

3.2 Hardware Interfaces: -

The interaction with mobile interface with the business logic server and the output of which is sent to the database for extraction of the data and once the

data gets approved, the output of business logic server is then displayed for the user. And application is compatible with all operating systems.

Once on clicking another specific button the same cycle goes on, i.e., first message of userid and role goes to the business logic server the data regarding the authorization and authentication of the roles is then sent to database for checking the information, and if the data is present the will send the output sent by the business logic server to the interface for further interaction of data with user.

3.3 Software Interface: -

This is a mobile application for respective platforms. When the user according to his role enters his details in the login interface, where the data is then sent to the business logic server for the authorization and authentication of the roles the logic is further then sent back according to the entered role for the further UI as in our application there will be 2 roles, Field Engineer and Product Manager.

In each case the UI is different, so will display the following pages accordingly. The information is further checked in with the ERP database for right details, once approved by it will redirect to other interfaces according to the way business logic server designs it. If not found in the database will redirect to another page i.e., Invalid User_id.

So hence we can say this is how on clicking a particular button the data is going to flow for all the interfaces.

Business logic server basically will help in by sending the further interfaces to display for all the on-click according to role.

3.4 Communication Interface: -

Customer, Product Manager, Field Engineer sends a request regarding the redirection of page from where they were to the destination page, this request is then sent through channel to Business Logic Server which interacts with the database and checks in if the information provided by the user is valid or not and accordingly the information is then sent client for further proceeding.

4.System Features

4.1 Login Authentication

This feature is added into the software; this decides which page the user gets to land on once he logs in into the account. According to the roles that are provided in our application, there are 2 roles, one of Product Manager who can modify the product data report which will affect upon the graphical information the user views for using the data as to turn the business down side up i.e., it can be done by utilizing the information in the best way.

4.2 Purchase and Sales Order status

This feature enables the user to best view data in graphical form. By graphical form we mean, it can be pie-chart, bar-graph. The purchase and sales order is important as it involves the demand to communicate with the right departments in the warehouse to make things work in a better way.

4.3Purchase Order Creation

This feature is solely for the customers alone who would want to purchase any product and this updating will be made soon into the ERP database and will eventually affect upon the reports,

5.Other Functional Requirements

5.1 Performance Requirements: -

Every application is expected to reach some certain criteria so that it can be best used by the customer.

- The application must be user friendly.
- The connectivity of application with the server depends upon the wifi connections or any data connections, to access the data.
- The code must run on any platform.

5.2 Safety Requirements

Since the database for our project is given by customer, hence need to really work with connection of application with it in rightful manner.

5.3 Security Requirements

Our database must be completely protected by our application, by malicious entries, or any unauthorized id trying to access the database for various reasons. The application should be efficient enough to handle exceptions and providing a right error message to the user with access the database if the data is not protected.

5.4 Software Quality Attributes

Our application must be user friendly, must run on any platform i.e., windows, android, or even IOS mobile phones. It must be tested regularly for best results of desired product.

5.5 Business Rules

we must have regular meeting about working and implementation of the project to best suited requirements of customer.

6. Other Requirements

Abbreviations used

SRS → Software Requirement Specification

PO → Purchase Order