SUPERIOR UNIVERSITY LAHORE

FACULTY OF COMPUTER SCIENCE & IT

FINAL YEAR PROJECT

REPORT & DOCUMENTATION

BIZLEDGER

PROJECT ID: 13

PROJECT TEAM

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Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
Awais Jameel	1.0	20th Jan,19	Original Draft	
Muneeb, Amna	1.2	10th April,19	Changes Based on Feedback from Supervisor	
Awais, Muneeb	2.0	15th June, 19	Changes Based on Feedback From Faculty	

APPROVAL

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Project Manager

Comments: _____

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Date:_____ Signature:_____

Head of the Department

Comments: _____

_____

Date:_____ Signature:_____

Dedication

Firstly, we dedicated to the Almighty God, thank you for the guidance, strength, power of mind, protection and skills and for giving us a healthy life.

We dedicated to our beloved parents, who have been our source of inspiration and gave us strength when we thought of giving up, who continually provide their moral, spiritual, emotional, and financial support.

To our brothers, mentor, friends, and classmates who shared their words of advice and encouragement to finish this study.

Acknowledgements

We are really thankful to our supervisor who has helped us a lot in the project. Special thanks to course instructor for describing in brief. Throughout the process of organizing and completing this project, we have received many assistance and guidance from various parties. Without these individuals who are willing to share their experiences and time to give me a helping hand, we may not have completed the project on time or in a better quality. Thus, in this section, we would like to express our deepest gratefulness to all of these individuals who had supported us.

Executive Summary

We are making a software solution any scale of Business to maintain their records. Our system will manages information of all types of Business. The question is “Why we are making this software solution” answer is because there is not a single system which is able to solve the issues of the Businesses so we will make an application through which the Businessman will be able to eliminate the problem of their record management and able to be better aware of their business. Basically our application is a ledger management system and E-commerce. Which will be based on web technologies. The main business logics are always stay on the cloud (Server side) and we will make different front-end interfaces for different platforms those interfaces allows users to use certain feature of our main business module.

We will make one main interface for the Business and another interface for its customers with limited information of their accounts or records. Another purpose of developing this system is to make Business records secure. For this we will use different encryptions on client and server side and we will always keep backing up data frequently so users no need to worry about their information.

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Chapter 1
Introduction

Chapter 1: Introduction

The software solution will mainly developed for all type of Businesses of any scale. This software solution is for those who want to modernize their business using technology.

1. Background

Pakistan is at the edge of the revaluation of technology and all types of small or large business required more and more technology to grow their business but sill there are not much opportunities for the small business because of the limitation of the resources.

2. Motivations and Challenges

Our motivations for this project is to make an software which just make the hard work easy for the Business and make all the records secure with an easy and manageable way the real challenge for us is to make the software that much easy so the Businesses will able to accept it over their traditional way of organizing the records. This challenge is the biggest motivation for us.

3. Goals and Objectives

Our goal is to make this software the main and the only way of maintaining the record for the Businesses. We want this software to be affordable for all type of Businesses. Making this software solution viable and affordable for all type of Businesses is our objective.

4. Literature Review/Existing Solutions

There is no such a system which targets the same audience as we and not a single software solution which tend to work as our software.

5. Gap Analysis

Because technology is growing rapidly and there is not such software which target the small and medium size businesses and this make the big gap for our solution to be exist.

6. Proposed Solution

With our software solution the records will be very safe and can't be altered or damaged because the data will be stored on the cloud and the software itself will uses secure encrypted authentication system so nobody else can alter the data.
Our software solution will provide very easy access to the old business records. All the information can be accessed through customer Business ID.
Technical information: Our software solution will be mainly based on web technologies. Our main logic of the application stays on the cloud and the data also.
We will make web, android, ios based interfaces to communicate with the business logic.
We will make hybrid application for android and ios devices communicate through api's with our main application.

7. Project Plan

1. Work Breakdown Structure

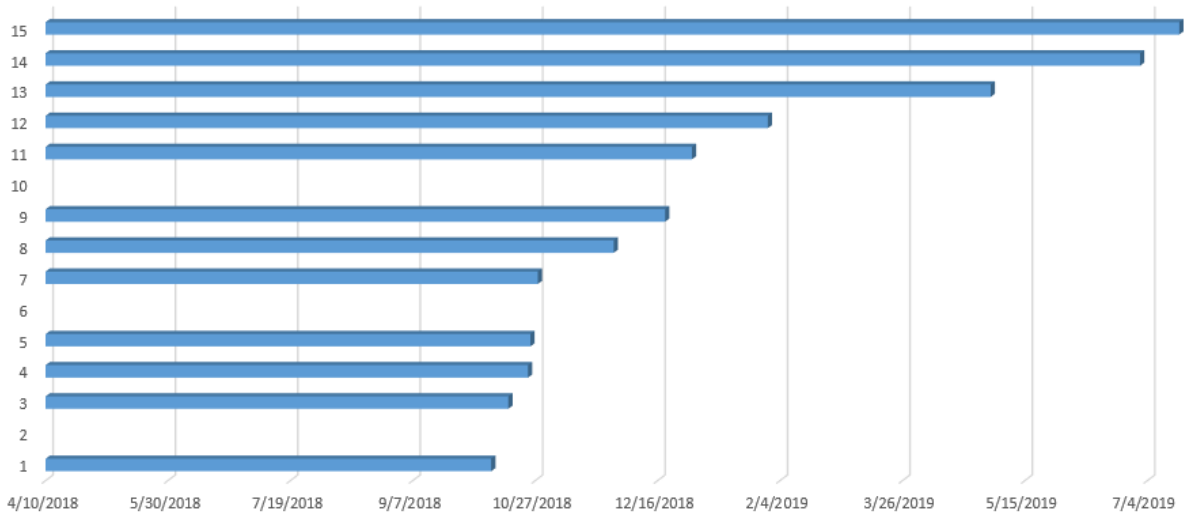
1. Analysis
    1.1. Functional Requirements
    1.2. Non-functional Requirements
    1.3. Other requirements
2. Design
    2.1. Business logic design
    2.2. Database design
    2.3. Front-end design
3. Implementation
    3.1. Database implementation
    3.2. Business logic implementation
    3.3. Front-end implementation
4. Test
5. Deployment

Table 1 Roles & Responsibility Matrix

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
0	Proposal	1		6	Awais ,Muneeb, Amna
1	Analysis	2		16	
1.1	Functional Requirements			7	Awais
1.2	Non-functional Requirements			7	Awais
1.3	Other requirements			2	Muneeb
2	Design	3		60	
2.1	Business logic design			30	Awais ,Muneeb, Amna
2.2	Database design			20	Awais
2.3	Front-end design			10	Muneeb
3	Implementation	4		180	
3.1	Database implementation			30	Awais ,Muneeb
3.2	Business logic implementation			90	Awais ,Muneeb, Amna

3.3	Front-end implementation			60	Awais ,Muneeb, Amna
4	Test	5		15	Muneeb
5	Deployment	6		15	Awais , Amna

3. Gantt Chart



i Gantt Chart

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

1. Introduction

I. Purpose

The main purpose of our software is to facilitate the Businesses.

II. Intended Audience and Reading Suggestions

This document is of the Project Manager, System Engineers, System Test Engineers, System Maintains Engineers, Developers

2. Product Scope

There is a huge gap in the market for this type of software therefore there is a great market scope for the product to be beneficial for the client and the company. Main modules of our project are written below.

Dashboard will basically display the current statuses of different entities. Shows every transaction of any time span. Admin Dashboard will be the main tool to manage the application and different modules. We can manage the Total Customers, Total Orders, Total Sale and generate different reports.

POS:

Our software will provide a full POS system to manage products and their sales.

E-commerce:

This will be a complete E-commerce system based on business catalog. This module will be very robust and extensive for any type of business or product.

3. Overall Description

I. Product Functions

Business:

POS, E-commerce.

II. User Classes and Characteristics

There are main three type of users in our system.

Business.

Business's customers.

Each of the user able to use our system as product functions.

4. Operating Environment

The web application will be available for every platform i.e. Desktop and mobile devices. The application does not support smart wears.

Table 2 Business Side (desktop)

Operating system	Windows, MAC, Linux
RAM	512 MB (min)
Internet connection	1 MB (min)
Internet browser	Google chrome, Mozilla Firefox, opera, IE9+

Table 3 Business Side (mobile)

Operating system	Android, IOS, Windows
RAM	256 MB (min)

Internet connection	1 MB (min)
Internet browser	Google chrome, Mozilla Firefox, opera, IE9+

Table 4 Server Side

Operating system	Windows, Linux
RAM	4 GB (min)
Internet connection	4 MB (min)
Internet browser	Google chrome, Mozilla firefox, opera, IE9+
Server	Web Server, SMS Server, Email Server, Database Server
Platform	PHP, JavaScript

5. Design and Implementation Constraints

User must be sign in to use any of the software module. All users can only use reports module at mobile side. Trader need desktop to use full modules of our application.

I. External Interface Requirements

II. User Interfaces

User interface will be simple easy and understandable for every type of user. The layout will be consistent for every user and follow the same patterns at mobile or desktop. Navigation of our application will be very easy.

6. Hardware Interfaces

Business Side (desktop)

CPU	pentium (min)
RAM	512 MB (min)
Internet connection	1 MB (min)
Printer	thermal / inkjet
Hard Drive	100 GB

Business Side (mobile)

Phone	Smartphone (android/ios/windows)
RAM	256 MB (min)
Internet connection	1 MB (min)
Storage	100 MB (min)

Server Side

Hard Drive	10 GB
RAM	4 GB (min)
Internet connection	4 mb (min)

7. Software Interfaces

Operating System: Windows / MAC / Linux / Android / IOS
Browser: Chrome / Firefox / Opera
Front-End Languages: HTML5, CSS3, JS6, AJAX
Back-End Languages: PHP 7.2
Database: SQLite3

8. Communications Interfaces

Our software is divided into the three parts

- frontend (interface or layout)
- backend (business logic)
- database (data)

We uses ajax at the frontend to communicate with the backend and your backend process the request and fetch the required information from the database and give us the response in json.

9. System Features

Our software will help the traders to maintain their records and in protecting them. This software mainly developed for traders.

i. System Feature 1 (Login)

Description and Priority

The login is the most important feature of our software we uses the same login for every type of user in our system. To login to the software user requires a valid and verified email and password. When user enter their credentials our system check the first does this email exists in our system or not if exists then the system checks the email is verified and if it is then it matches the password if it matches then our system will check the role of the user and then send the user to their dashboard respectively.
High Priority

Functional Requirements

For registering as a Business need to get a valid account from the BizLedger company.
Every Business need to create their customers' accounts manually.
To login to the system user need Email and Password.

ii. System Feature 2 (Admin Dashboard)

Description and Priority

Dashboard will basically display the current statuses of different entities. Shows every transaction of any time span. Dashboard will be the main tool to manage the application and different modules. We can manage the Total Customers, Total Orders, and Total Sale and generate different reports.
High Priority

Functional Requirements

Admin need to be logged in to the system to be able to go to the dashboard.

3. System Feature 3 (E-commerce)

Description and Priority

This will be a complete E-commerce system based on business catalog. This module will be very robust and extensive for any type of business or product.

Medium Priority

Functional Requirements

There should be some products to be showed in the Ecommerce module.

4. System Feature 5 (POS)

Description and Priority

Our software will provide a full POS system to manage products and their daily sales. This feature only works for the Business.

Functional Requirements

User must have role of Business to use this feature.

5. Other Non-functional Requirements

Performance Requirements
The user interface of the system shall have light colors combination.
The system should be easy to use and each element is well defined and designed.
Website should be light enough to get reloaded in 5-10 sec.
The System should have capability of high bandwidth.
Website shall be responsive to run smoothly on device of any size
The database connection and queries shall be well designed
The system should allow customer to buy multiple products at a same time.

The system shall allow 20,000 user at a time or more
Each product should have its own product page.
System must be available online every time
In case of System maintenance the DOWN.php page should be uploaded to provide user better guidance
All data generated in the form of files should be stored and protected
Querying the database should take less than 5 sec.
The system must store data efficiently and must anticipate the time remaining in all storage fill.

6. Safety Requirements

The client server connection should be well secure.
The Database should have current data backup system
The files generated during specific processes should have backup.
The Temporary data generated should be deleted on time
For safety the system should display return policy before confirming the order
The privacy policy should be visible to the customer.
Customers information should be secure and does not provide leakage at any cost

7. Security Requirements

The URL of the website should be encrypted with SSL certificate
Admin and Brands panel should have 2FA authentication to login the system.
The sessions should be destroyed immediately after the logoff is done by admin panel or brands panel.
After the log off request by the customer the session will destroy after 2 hours.
The transactions procedure should be secured.
A text message should be released after the confirmation of order to confirm the order second time and final time.
The delivery status update will be sent on both mail and text message.
DDOS prevention security should be designed to avoid hackers' attacks
For customer's security the password will be encrypted in database.
In case of forgot passwords a complete system would provide password recovery.
Removing a brand will require REMOVING_PANAL_RIGHTS in which a form should be filled and the data has to be verified by the Brand with shared problem statement on which a brand can request apology or wish to pay penalty.
System shall resist unauthorized and unintended usage of the system.

8. Software Quality Attributes

The graphical location of the server shall not hinder the availability of the system
A quality connection with minimum network restriction should be selected.
The coding of the software should follow modularly, object oriented techniques shall be used to make code in the form of objects to accomplish independent tasks
The system should make use of encryption to ensure that the data is stored securely.

Over internet connection in normal situation, the server should respond in one sec.
The system shall be portable

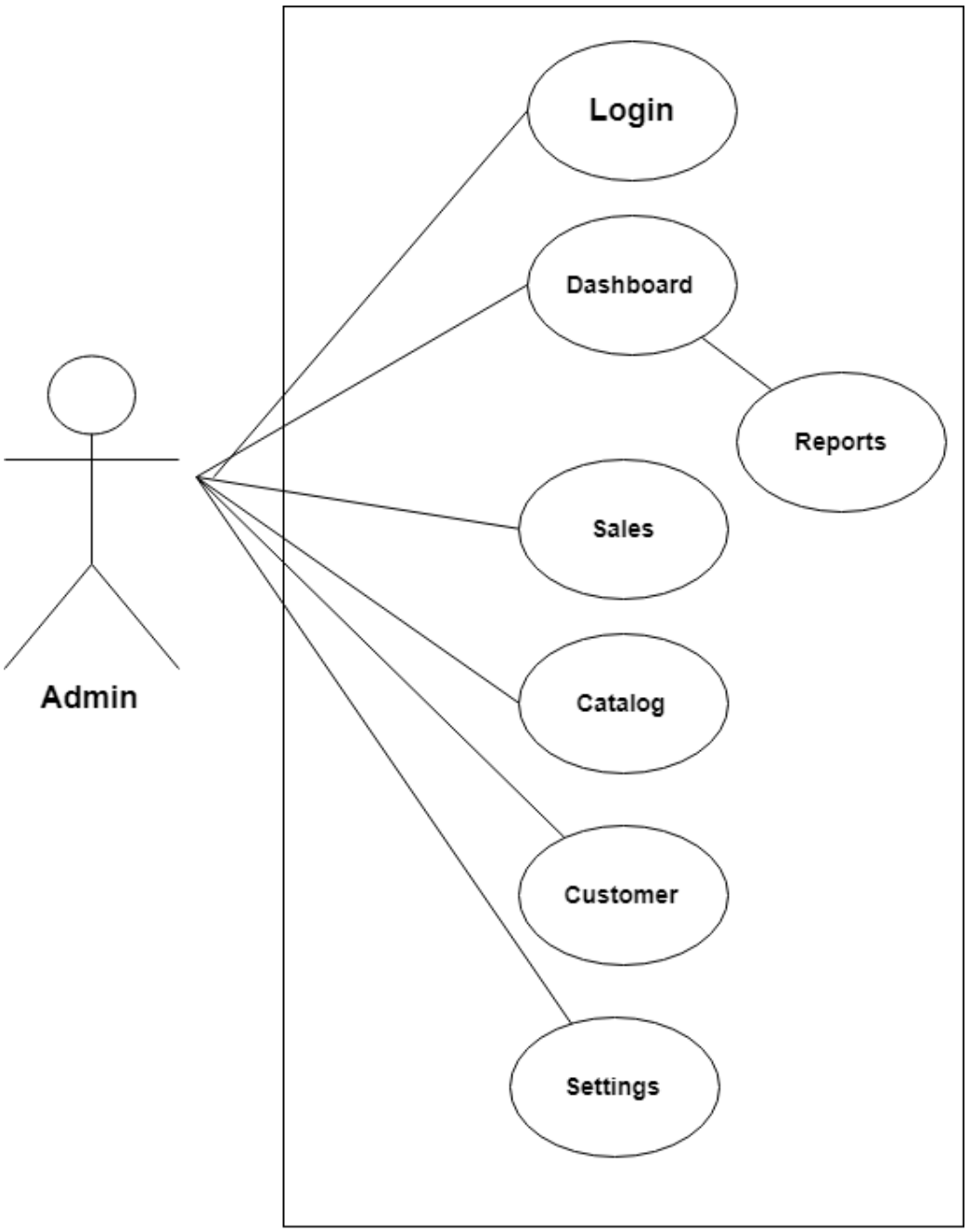
9. Business Rules

Our system is more likely to be used by the same type of users mainly traders of grain markets therefore we our target is to convince 1 or 2 big traders of the grain market then by their references we target the other traders also.
We are also considering the regular method of advertising through the banners etc.

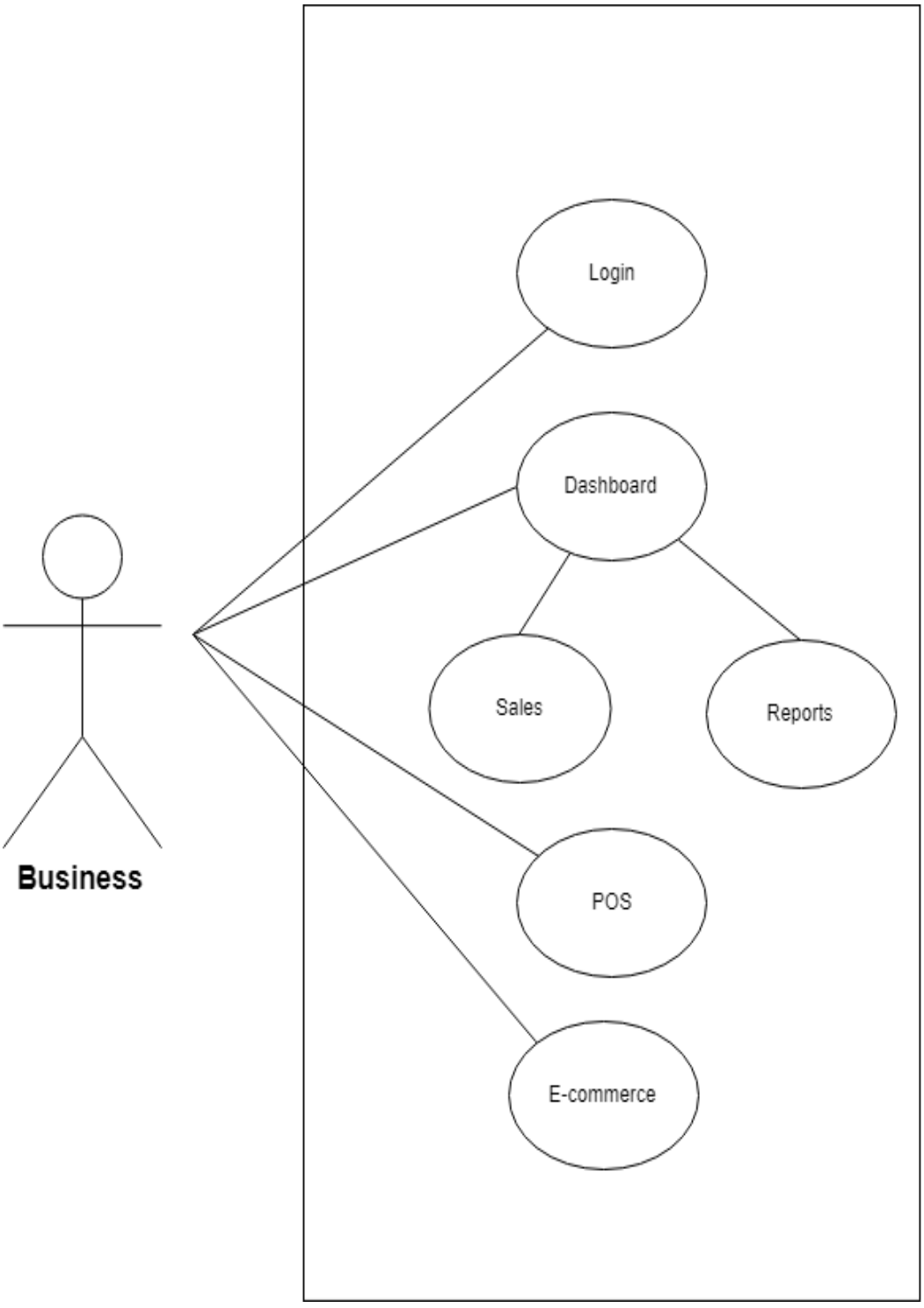
Chapter 3
Use Case Analysis

Chapter 3: System Analysis

1. Use Case Model



ii Use Case Admin

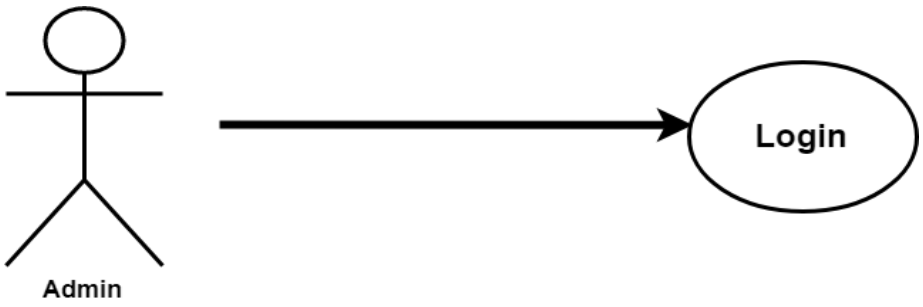


iii Use Case Business

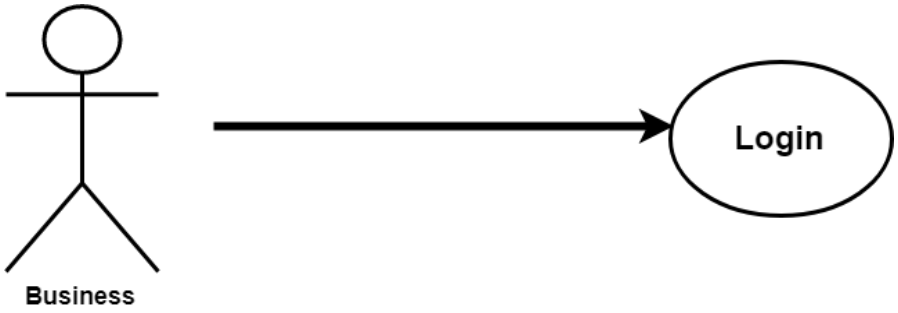
2. Fully Dressed Use Cases

Table 5 fully dressed use case

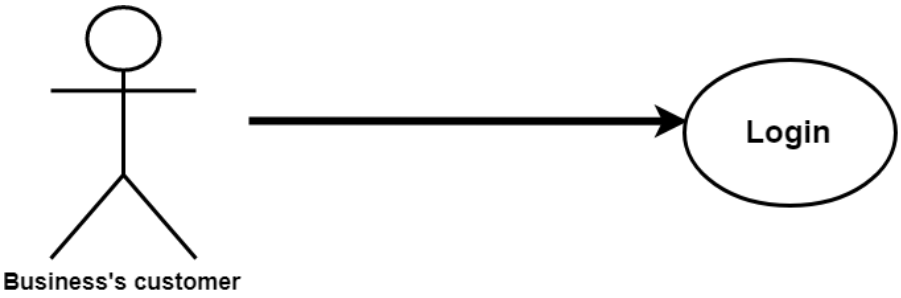
Number	1	
Name	Admin Login	
Summery	User enter into its profile dashboard	
Priority	1	
Pre-conditions	Fill the signup page	
Post conditions	Can able to use every module of the system	
Primary Actor(s)	Admin	
Secondary Actor(s)	Business	
Trigger	When Admin is at login page and press the “Login” button	
Main Scenario	Step	Main Scenario
	1	Enter Email / Password
	2	Press Login
	3	Security system checks credentials
	4	If passes security can go to dashboard/reporting/timeline
Extensions	Step	Branching Action
	1	User may have forgotten password
Open Issue	Should the system auto-fill username and password based on cookies?	



Number	2	
Name	Business Login	
Summery	User enter into its profile session	
Priority	5	
Pre-conditions	Should be registered by BIZLEDGER company	
Post conditions	User can use every module of BIZLEDGER	
Primary Actor(s)	Business	
Secondary Actor(s)	Business Database	
Trigger	User press the “Login” button	
Main Scenario	Step	Action
	1	User enters username and password.
	2	Press login Button
	3	Security system check credentials.
	4	If passed login successful redirected to Business dashboard.
	5	Business can use every Module
Extensions	Step	Branching Action
	1	User may have forgotten password
Open Issues	Should the system auto-fill username and password based on cookies?	



Number	3	
Name	Business's customer Login	
Summery	User enter into its profile dashboard	
Priority	1	
Pre-conditions	Should be registered by Trader	
Post conditions	Can able to view the history of Trade	
Primary Actor(s)	Business's customer	
Secondary Actor(s)	Business	
Trigger	When Business's customer is at login page and press the "Login" button	
Main Scenario	Step	Action
	1	Enter Email/Password
	2	Press login.
	3	Security system checks credentials
	4	If passes security can go to dashboard/Reporting/Timeline
Extensions	Step	Branching Action
	1	User may have forgotten password
Open Issues	Should the system auto-fill username and password based on cookies?	

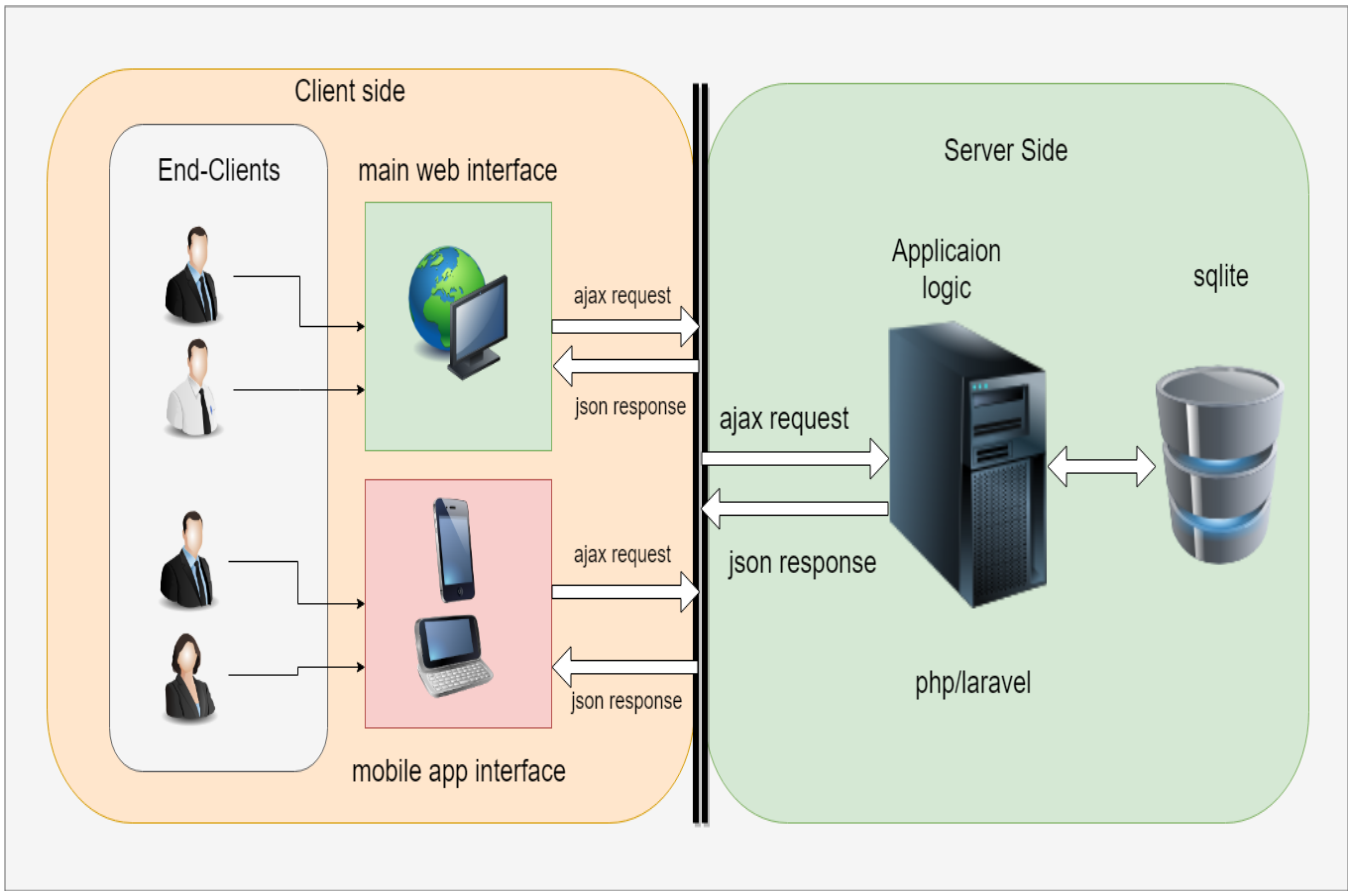


Chapter 4
System Design

Chapter 4: System Design

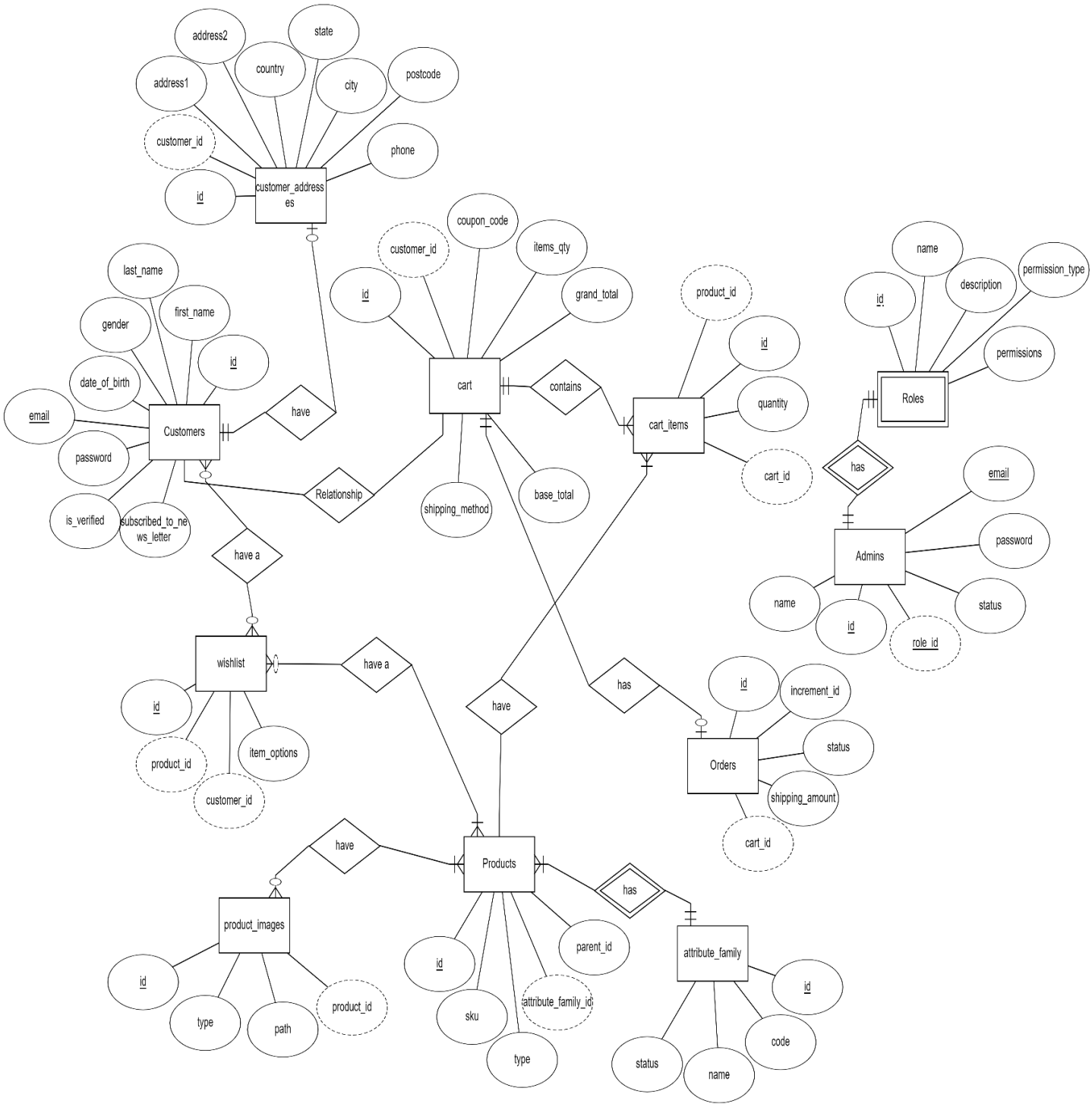
This chapter will define our software system with the help of Diagrams.

1. Architecture Diagram



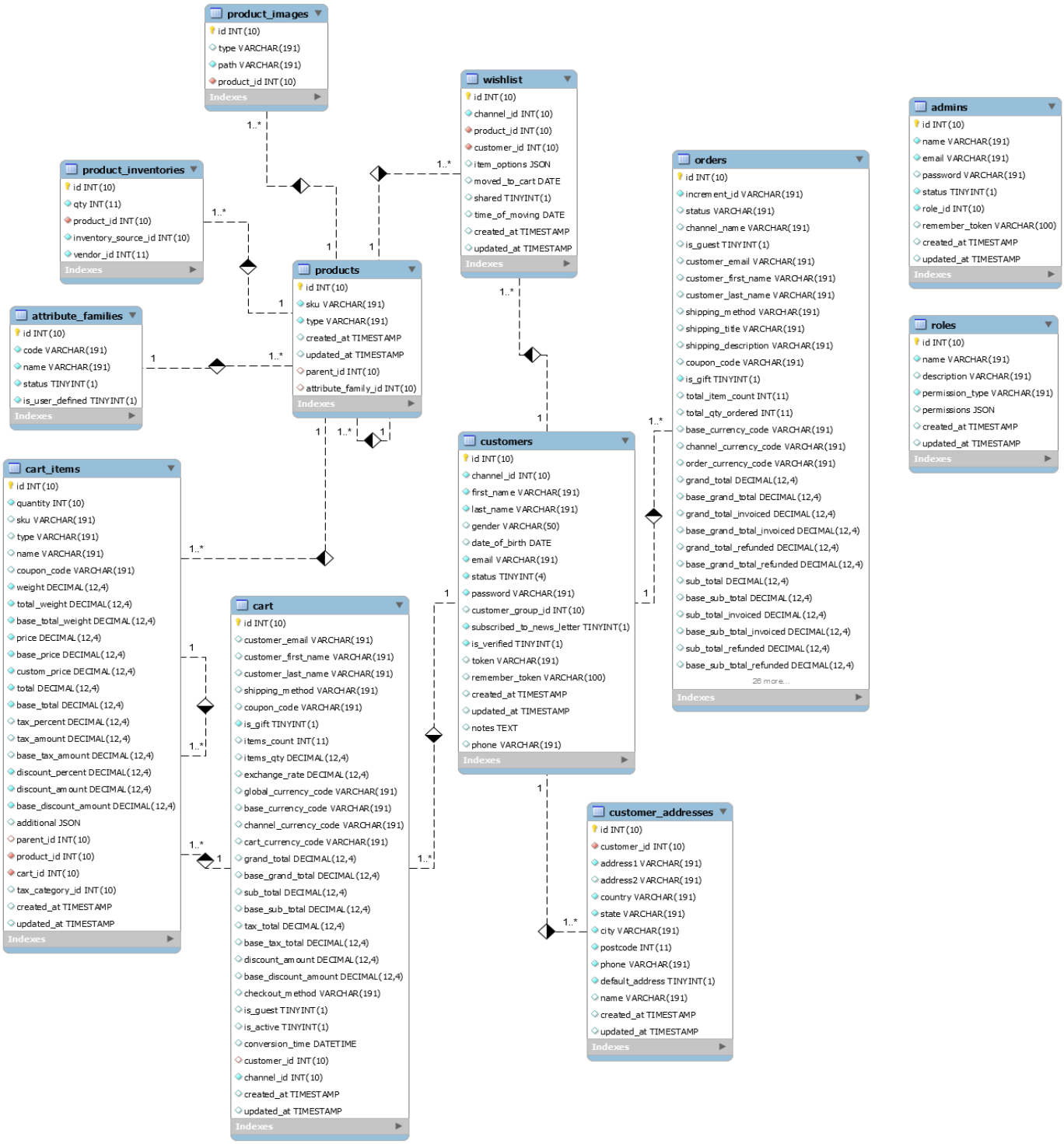
iv Architecture Diagram

2. Entity Relationship Diagram with data dictionary



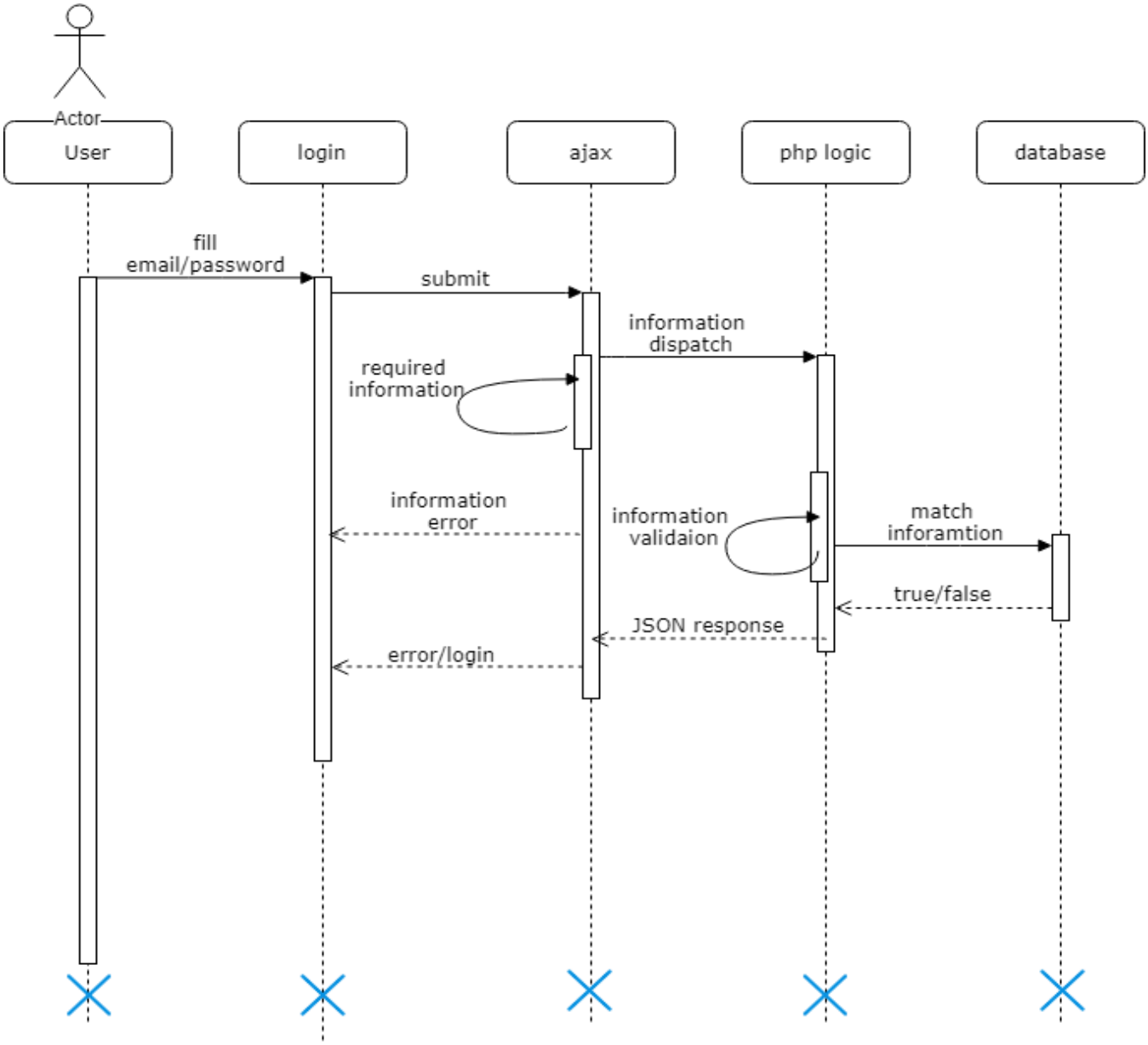
v Entity Relation Diagram ERD

3. Class Diagram

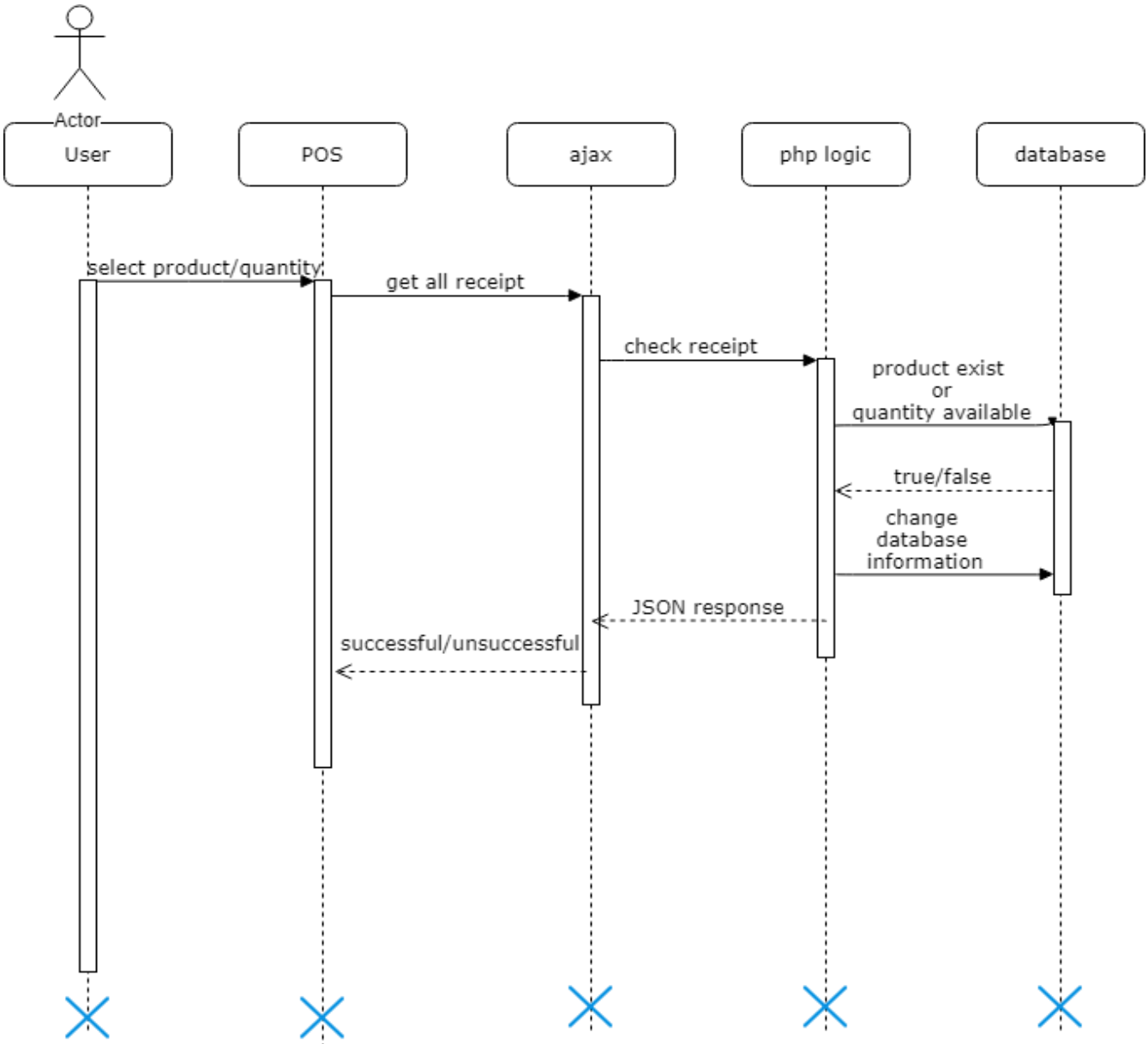


vi Class Diagram

4. Sequence / Collaboration Diagram

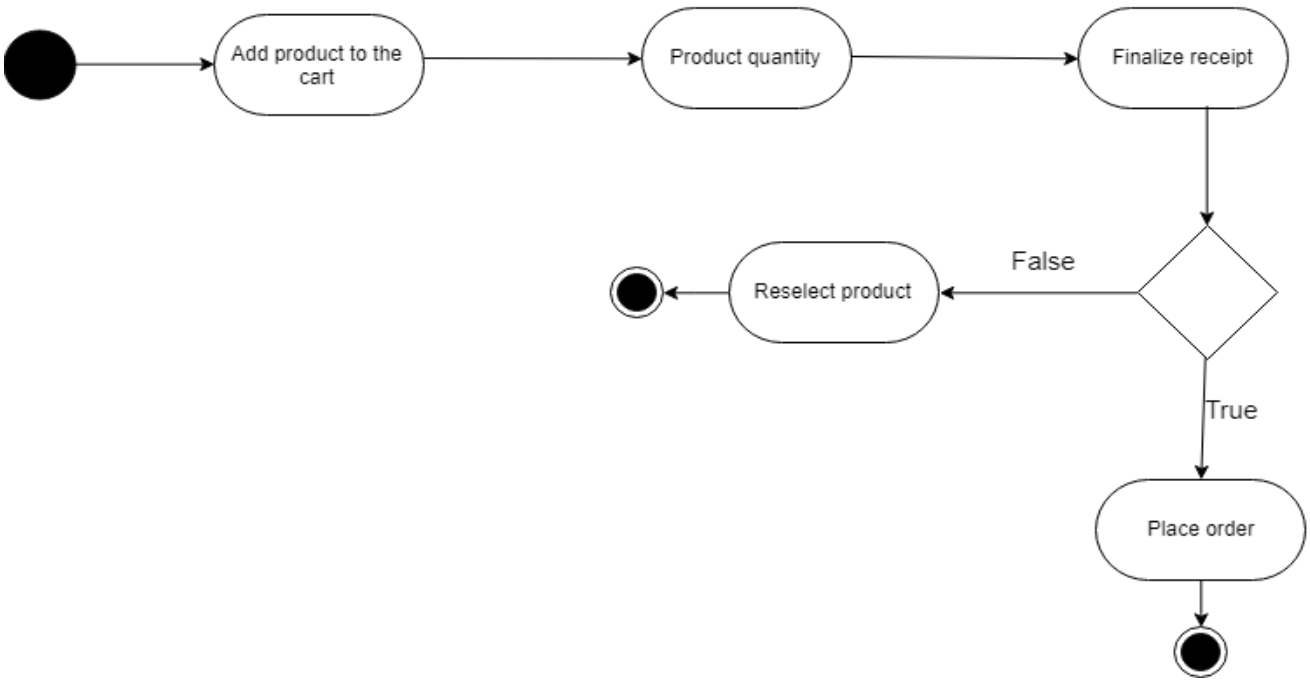


vii Sequence Diagram Login



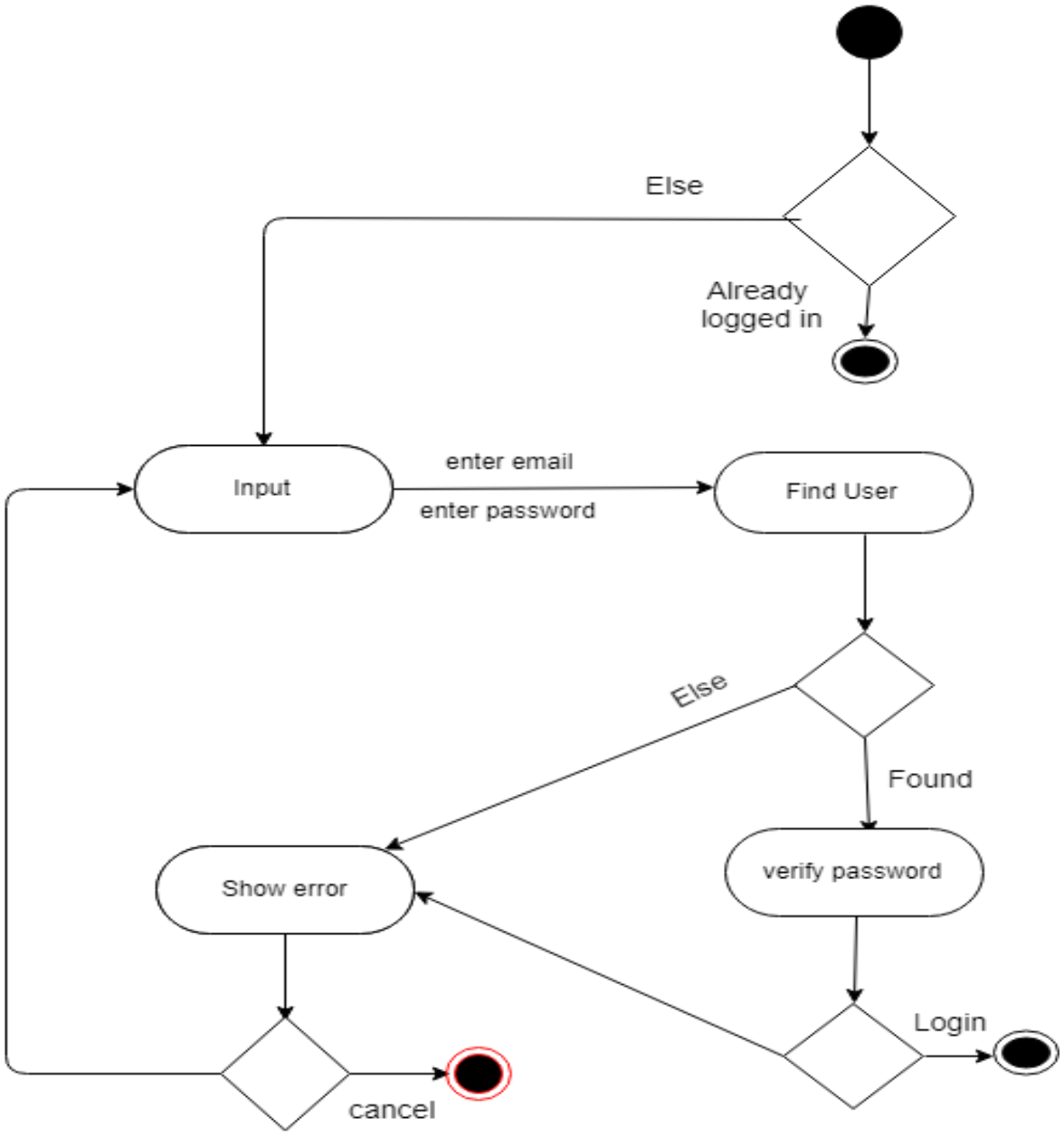
viii Sequence Diagram POS

5. Activity Diagram POS



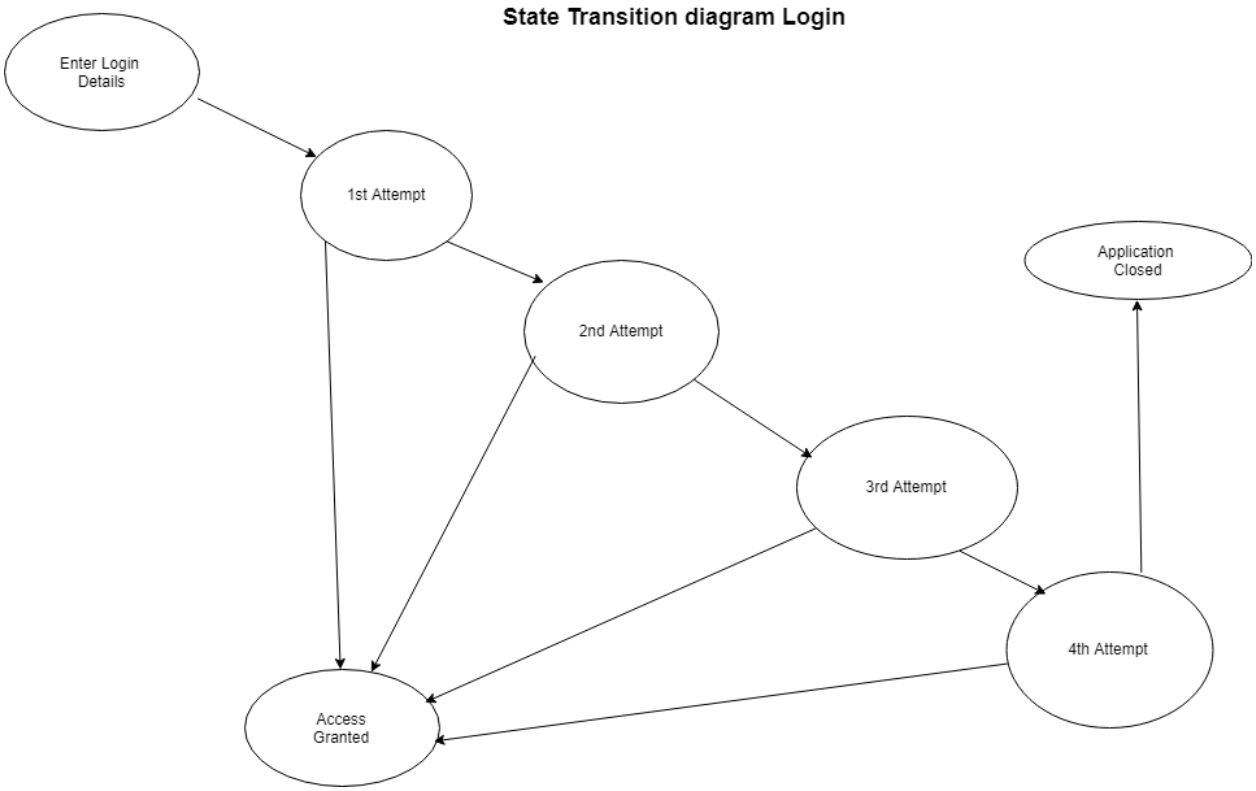
ix Activity Diagram POS

5. Activity Diagram Login

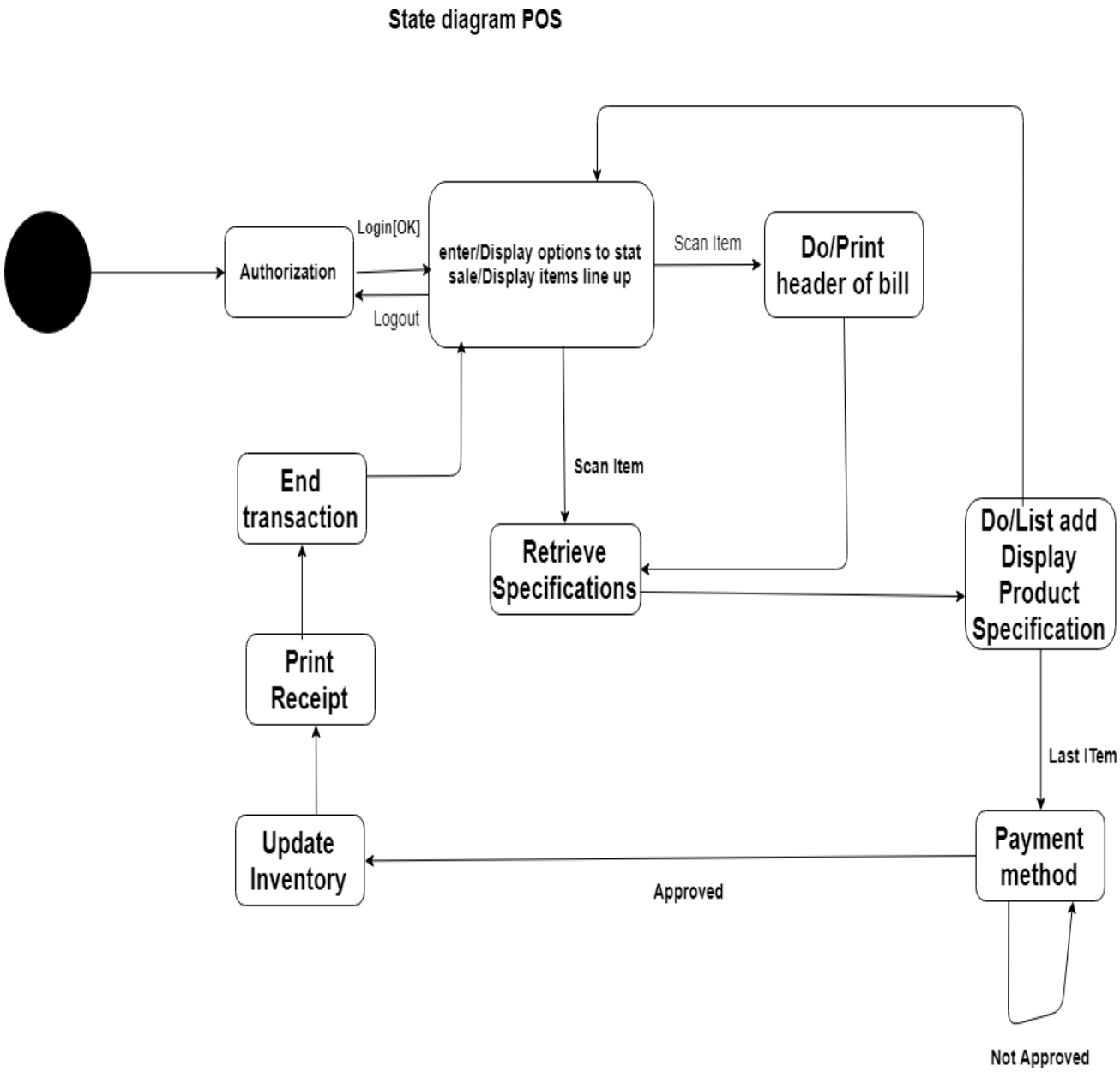


x Activity Diagram login

6. State Transition Diagram

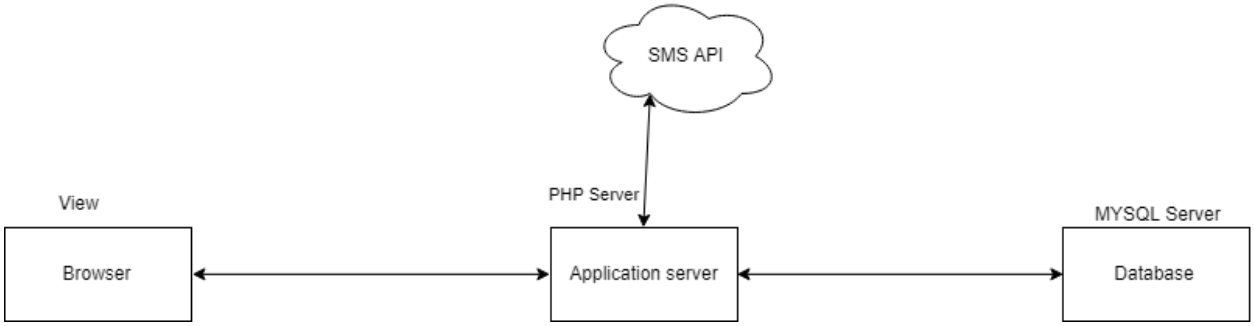


xi State Transition Diagram Login



xii State Transition Diagram POS

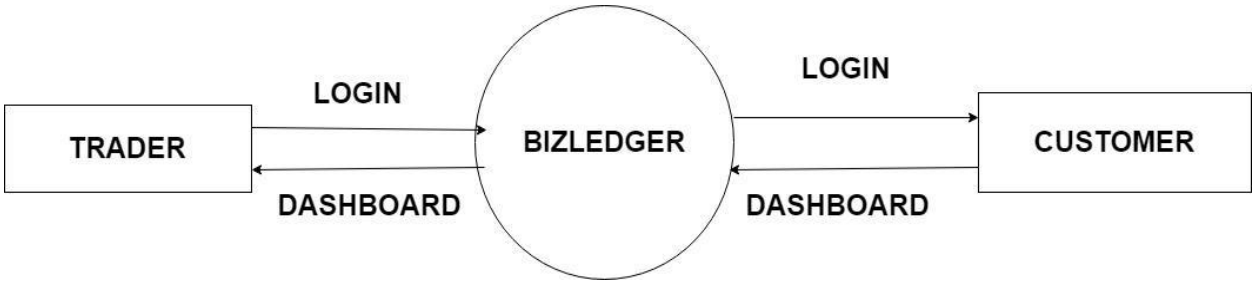
7. Deployment Diagram



xiii Deployment Diagram

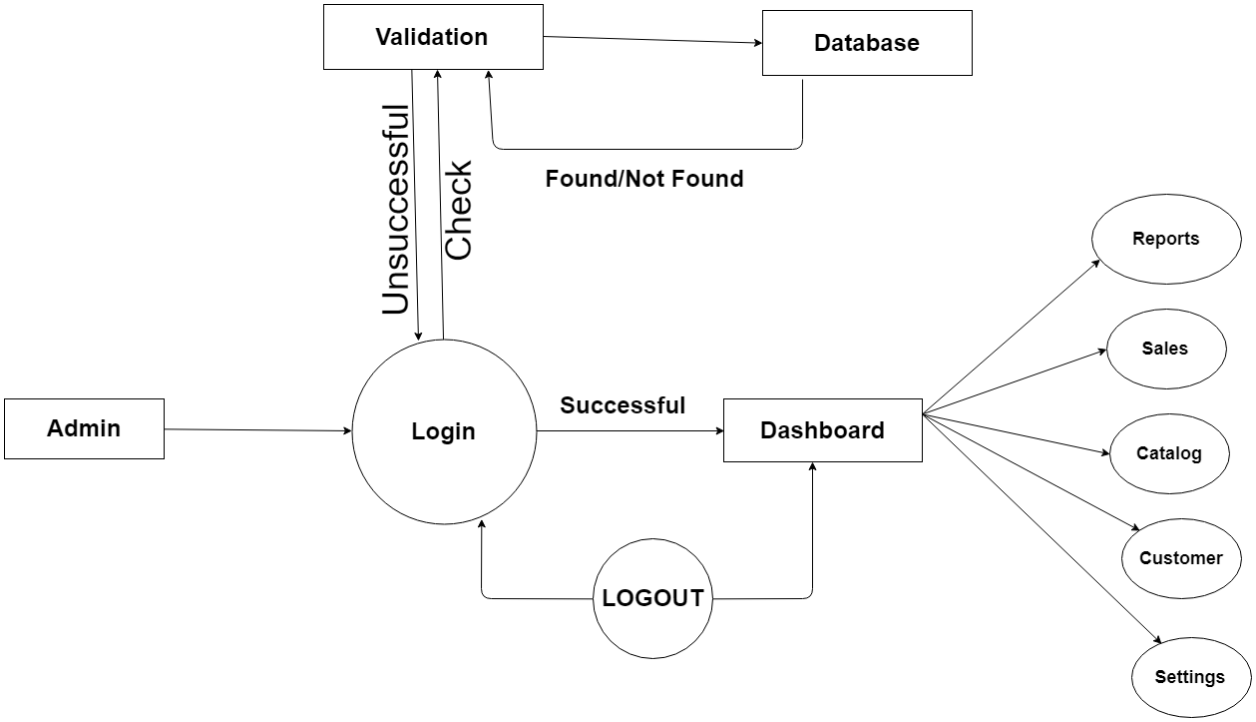
8. Data Flow diagram

Level 0:

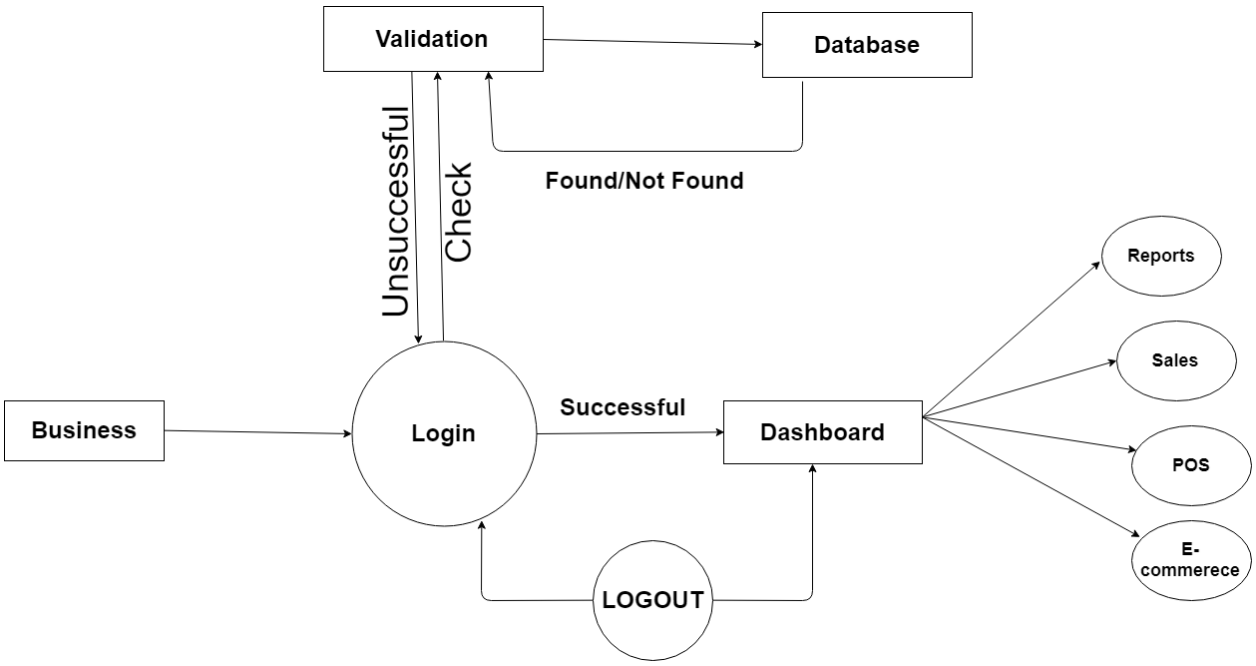


xiv Data Flow Diagram Level 0

Level 1:



xv Data Flow Diagram level 1 Admin



xvi Data Flow Diagram level 1 Business

Chapter 5
Implementation

Chapter 5: Implementation

This chapter will give the basic working detail of developer side.

1. Components, Libraries, Web Services and stubs

We will use MVC approach to develop this software.
Modal: This component will control the database and the data manipulation related tasks.
View: This component will control the user interface and front-end of our application.
Controller: This component will control the user requests and their responses.
Libraries: We will use different types of front-end and back-end libraries to develop our software.
Front-end: Bootstrap 4, VUE 2, Material Design Icon, Quasar
Back-end: Laravel 5.8, webpack, Bagisto, Electron
Web Services: Web Hosting, Domain (bizledger.net)

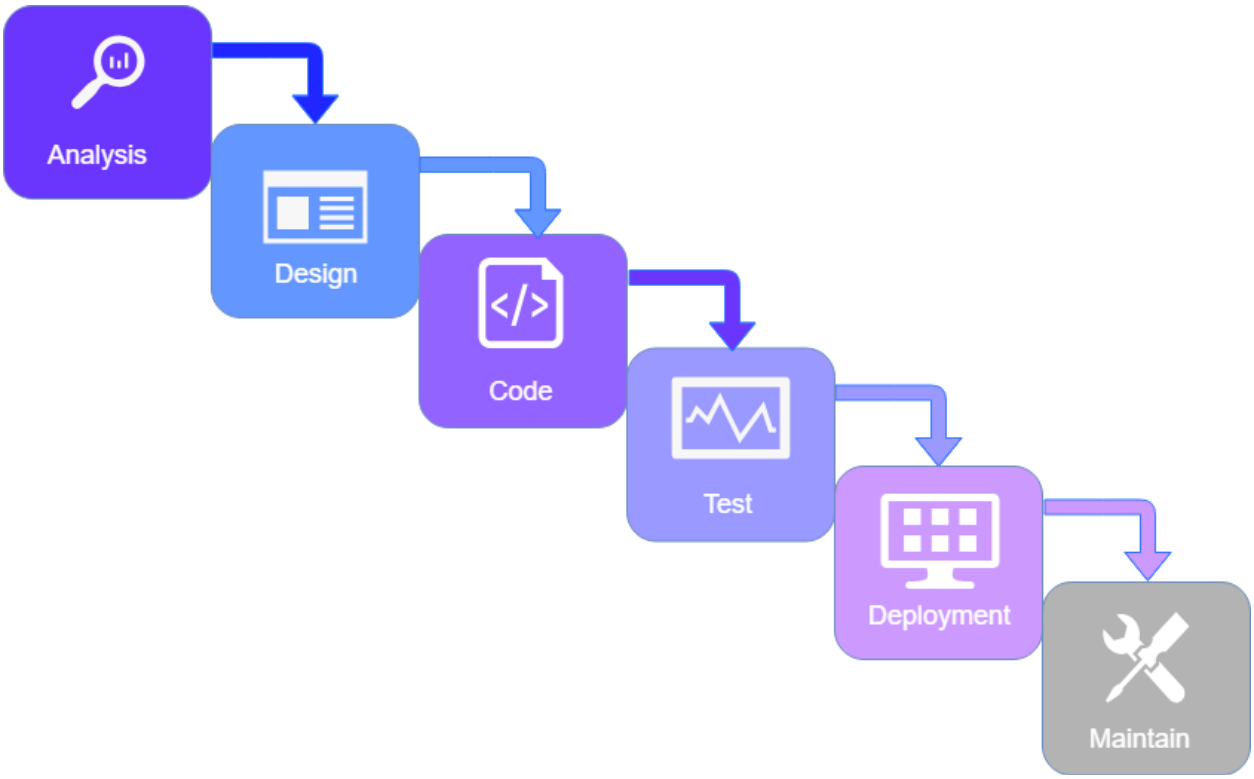
2. Deployment Environment

Windows 10
PHP Server
MySql Server
Visual studio code
Adobe Photoshop CC
Chrome, Opera, Edge

3. Tools and Techniques

1-Methodology:

We will use SDLC Waterfall methodology to develop our software solution.



xvii SDLC Waterfall Model

2-Tools:

IDE: visual studio code, sqlite manager

Languages: PHP, sql, javascript es6, css3, html5, ajax, json

Database: MySql

Frameworks: Laravel, Cordova, Electron, material design, vue.js

4. Best Practices / Coding Standards

Comments in the code which will describes the code

Camel case and snake case coding syntax

5. Version Control

We will use GIT as our version control system

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

6.1. Use Case Testing

Table 6 Test Case 1

Test Case Summary	To verify that the user must enter valid Email and a valid password to access the system.
Prerequisites	The user must be authorized to access system.
Test Procedure	1.Enter the valid user Email and Password on Input fields
Test Data	Validate User Email and password from the database
Expected Result	1. On clicking the Login Button if user Email and Password are valid then the user can access the system 2. On clicking the Login Button if either User Email or Password is invalid user cannot access the system. 3. The invalid message “Invalid Email/Password” should be displayed. 4. On clicking the login button if input fields of username or password are empty then the message will be generated that “Please Enter Username and Password” to access the system.
Actual Result	1. On clicking the login button if Email and password are valid then the user can access the system. 2. On clicking the login button if either Email or password any of them is invalid user cannot access the system. 3. On clicking the login button if any field is invalid then the invalid message “Invalid Email/Password” is displayed. 4. On clicking the login button if inputs fields are empty then the message will be generated that “Please Enter Email and Password”.
Status	Pass.
Remarks	This is a user validate test case.

Table 7 Test Case 2

Test Case Summary	To verify that the user enters a valid Email.
Prerequisites	User has a valid Email
Test Procedure	The user enters his/her Email
Test Data	Validate User from the database.
Expected Result	1. On clicking the login button if the Email is valid then the user can enter a password. 2. The otherwise invalid message “Invalid Email should be displayed”.
Actual Result	1. On clicking the login button if the Email is valid then the user can enter a password. 2. The otherwise invalid message “Invalid Email should be displayed”.
Status	Pass.
Remarks	This is a user verification test case.

Table 8 Test Case 3

Test Case Summary	To verify that the user enters a valid Password.
Prerequisites	User has a valid Password
Test Procedure	The user enters his/her Password.
Test Data	Validate User from the database.
Expected Result	1. On clicking the login button if the Password is valid then the user can access the system. 2. The otherwise invalid message “Invalid Password should be displayed”.
Actual Result	1. On clicking the login button if the Password is valid then the user can access the system. 2. The otherwise invalid message “Invalid Password should be displayed”.

Status	Pass.
Remarks	This is a user verification test case.

Table 9 Test Case 4

Test Case Summary	To verify that the user can recover/modify his/her forgotten user Password either it is username or password.
Prerequisites	1. User must have a valid E-mail address. 2. The user is authorized.
Test Procedure	If the user has forgotten his/her user account password they have to enter his/her E-mail in order to recover/modify his/her forgotten password.
Test Data	Validate the E-mail from the database.
Expected Result	1. On clicking forgot password system prompt user to enter his/her Email. 2. On clicking forgot password system ask the user to enter his/her Email. 3. The user can recover his/her account through his/her Registered Email. 4. If email is invalid or enters in an invalid email format warning message “Invalid E-mail” should be displayed.
Actual Result	1. On clicking forgot password system ask the user to enter his/her E-mail 2. On entering email system prompt user to check his Email where the system sends your Password. 3. If email is invalid or enters in an invalid email format warning message “Invalid E-mail” is not displayed.
Status	Pass.
Remarks	This is a Forgot password verification test case.

Table 10 Test Case 5

Test Case Summary	To verify that upon clicking the login button system must move a user (Admin, Business) to their appropriate user page where they can access their relevant data.
Prerequisites	1. The user must enter their email and password and click on the Login button. 2. The user has a valid email and password.

Test Procedure	If the user has entered a valid Email and password system move the user to their relevant page to access their appropriate user data. 2. The user must click login after entering their Email and password.
Test Data	To provide user access to their account to access the system resources.
Expected Result	On clicking the login button after entering email and password the user must move to their appropriate user page.
Actual Result	On clicking the login button after entering email and password the user must move to their appropriate user page.
Status	Pass.
Remarks	Test case for checking User Role.

Table 11 Test Case 6

Test Case Summary	To verify that the Business can Upload Products on E-commerce module (any types of products)
Prerequisites	1. The user is authorized. 2. The User must be logged in to a system with Business rights.
Test Procedure	The Business can Upload Products (any types of products)
Test Data	To upload Files
Expected Result	1. On clicking Uploaded button system must be uploaded a file and also save into the database. 2. System Upload Files.
Actual Result	1. On clicking Uploaded button system must be uploaded a file and also save into the database. 2. System Upload Files.
Status	Pass.
Remarks	Test Case to upload products by Business

6.2. Equivalence partitioning

The format of email addresses is info@bizledger.net where the local-part may be up to 64 characters long and the domain name may have a maximum of 255 characters – but the maximum 256 characters length of a forward or reverse path restricts the entire email address to be no more than 254 characters

So, divide test cases in two scenarios:
i) Email id less than 1 characters
ii) Email id between 1 to 254 characters
ii) Email id greater than 254 characters

Invalid	Valid	Invalid
>1	1-254 characters	<254

6.3. Boundary value analysis

The format of email addresses is info@bizledger.net where the local-part may be up to 64 characters long and the domain name may have a maximum of 255 characters – but the maximum 256 characters length of a forward or reverse path restricts the entire email address to be no more than 254 characters

So, divide test cases in two scenarios:
i) Email id less than 1 characters
ii) Email id between 1 to 254 characters
ii) Email id greater than 254 characters

Invalid (min-1)	Valid (min, +min, -max, max)	Invalid (max+1)
0 characters	6, 77, 111, 220 characters	290 characters

6.4. Data flow testing

Table 12 data flow testing

Data unit Name	Data Flow Method	Test Result
Registration Form	Interface-->Database, Database-->Interface	Pass
Login Form	Interface-->Database, Database-->Interface	Pass
Account Recovery	Interface-->Database, Database-->Interface	Pass
Admin Panel	Interface-->Database, Database-->Interface	Pass
Business panel	Interface-->Database, Database-->Interface	Pass
E-commerce Module	Interface-->Database, Database-->Interface	Pass
POS system	Interface-->Database, Database-->Interface	Pass

Dataflow testing

6.5. Unit testing

Table 13 unit testing

Software Unit Name	Testing Method	Test Result
Registration Form	Manual Testing on Local Host	Pass
Login Form	Manual Testing on Local Host	Pass
Account Recovery	Manual testing on local Host	Pass
Admin Dashboard	Manual testing on local Host	Pass
Business Dashboard	Manual Testing on local host	Pass
E-commerce Module	Manual Testing on local host	Pass

POS system	Manual Testing on local host	Pass

Unit testing

6.6. Integration testing

Table 14 integration testing

Software Unit Name	Test with Unit	Testing Method	Test Result
Registration form	Bizledger Interface and relevant future	Manual Testing on Local Host	Pass
Login Form	Bizledegr Interface and relevant features	Manual Testing on Local Host	Pass
Account Recovery	Bizledger Interface and relevant features	Manual Testing On Local Host	Pass
Admin Dashboard	BIzledger Interface and relevant features	Manual Testing on Local Host	Pass
Business Dashboard	Bizledger Interface and relevant features	Manual testing on Local Host	Pass
E-comerce	Bizledger Interface and relevant features	Manual Testing on Local Host	Pass
POS system	Bizledger Interface and relevant features	Manual Testing on Local Host	Pass

Integration Testing

6.7 Performance testing

In performance testing we check the performance of our system depending on hardware components. We check the performance of our system on different hardware components by different products and different categories.

Our software require following hardware interfaces for better performance:

Business Side (desktop)

CPU	Pentium (min)
RAM	512 MB (min)
Internet connection	1 MB (min)
Printer	thermal / inkjet
Hard Drive	100 GB

Business Side (mobile)

Phone	Smartphone (android/ios/windows)
RAM	256 MB (min)
Internet connection	1 MB (min)
Storage	100 MB (min)

Server Side

Hard Drive	10 GB
RAM	4 GB (min)
Internet connection	4 mb (min)

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

Project Title: BIZLEDGER

Project Supervisor: Sir Fayyaz Dogar (Junior Lecturer)

Project Team: Awais Jameel (mcsm-f17-017)
Amna Hassan (mcsm-f17-035)
Hafiz Muhammad Muneeb(mcsm-f17-027)

Summary:
The software solution will mainly developed for all type of Businesses of any scale. This software solution is for those who want to modernize their business using technology. We are making a software solution any scale of Business to maintain their records.

The question is “Why we are making this software solution” answer is because there is not a single system which is able to solve the issues of the Businesses so we will make an application through which the Businessman will be able to eliminate the problem of their record management and able to be better aware of their business.

Another purpose of developing this system is to make Business records secure. For this we will use different encryptions on client and server side and we will always keep backing up data frequently so users no need to worry about their information.

7.2. Critical Review

It is very difficult to create the logic of the project, how to develop the project. Logic help us to create the project on the valid requirements. There were several hurdles we face during the development. Because the desire requirements were very high which would only be fulfill if we had knowledge. We have learned new things on quick base that was helpful for our project.

7.3. Lessons Learnt

Following are the learning outcomes that we have learned during the development of the project:

- During development we explored our skills which definitely going to help us in professional life.
- Learning of new technology and tools
- Learn how to apply software engineering techniques on a project.
- Learn communication skills
- Our project advisor strict we to follow the Gantt chart and this thing made us more punctual.
- Learn Team building skills and responsibilities.
- Learn to manage the project effectively.
- Learn about the importance and role of documentation in a software project
- Learn to develop better documentation

7.4. Future Enhancements/Recommendations

Following are the future enhancements of our project:

- More User Friendly Interface.
- Security will be enhanced with backend level limitations and checks.
- Add new features and functionalities if needed.
- Any other changes and improvements for positive improvement for the project are welcome in future.
- More optimized website using object oriented techniques.

Appendices

Appendix A: User Manual

User Manual explains the step by step activities that should be performed to use the system.

It provides all steps to carry out system tasks. It provides screenshots of the system functionality for users and businesses.

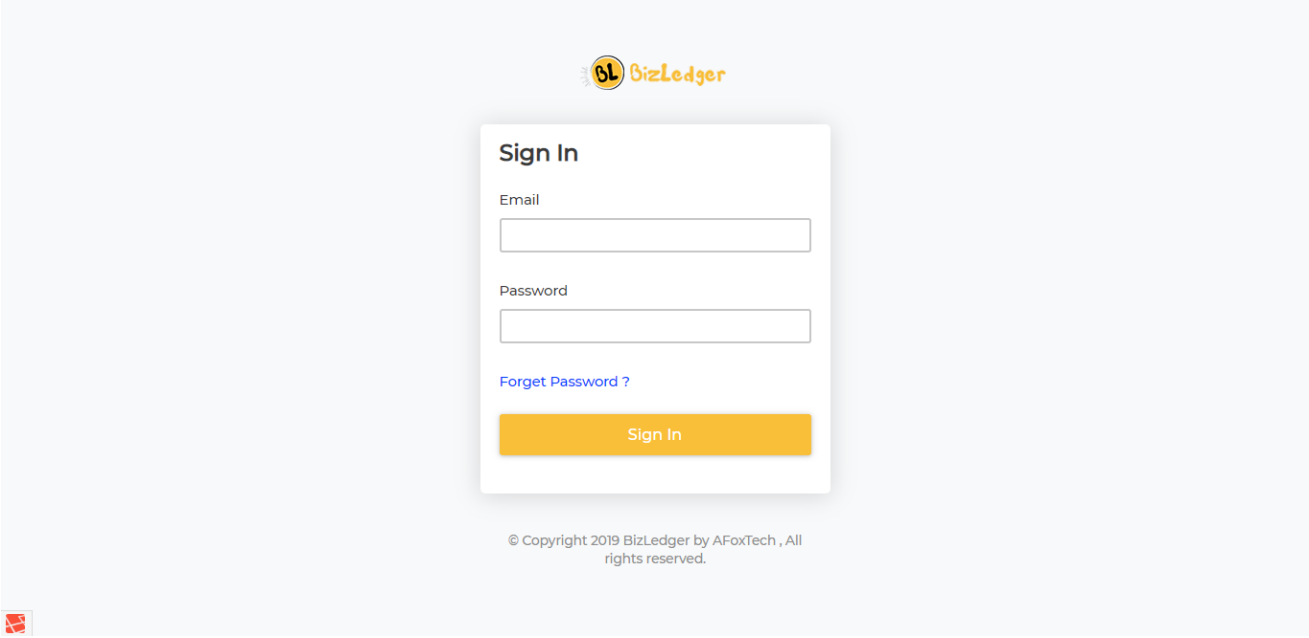
Appendix A: Introduction

Our system have three main components.

A.1 Admin

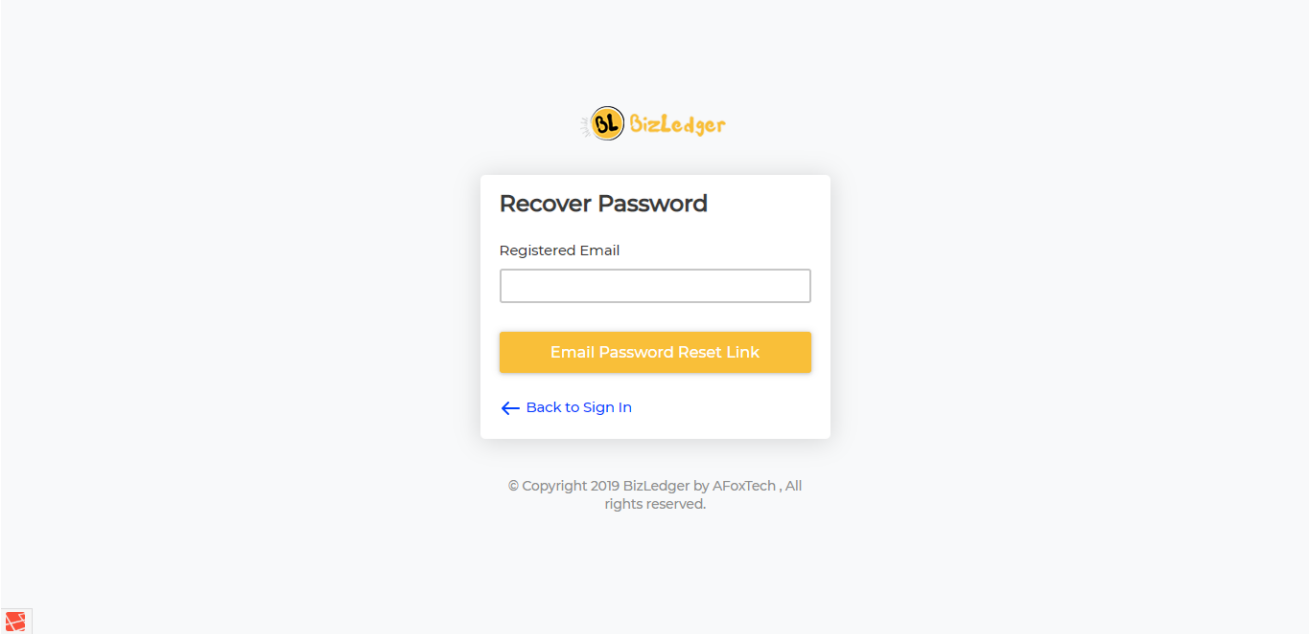
A.1.1 Login

To get into the dashboard user must login to the admin panel at bizledger.com/admin/login

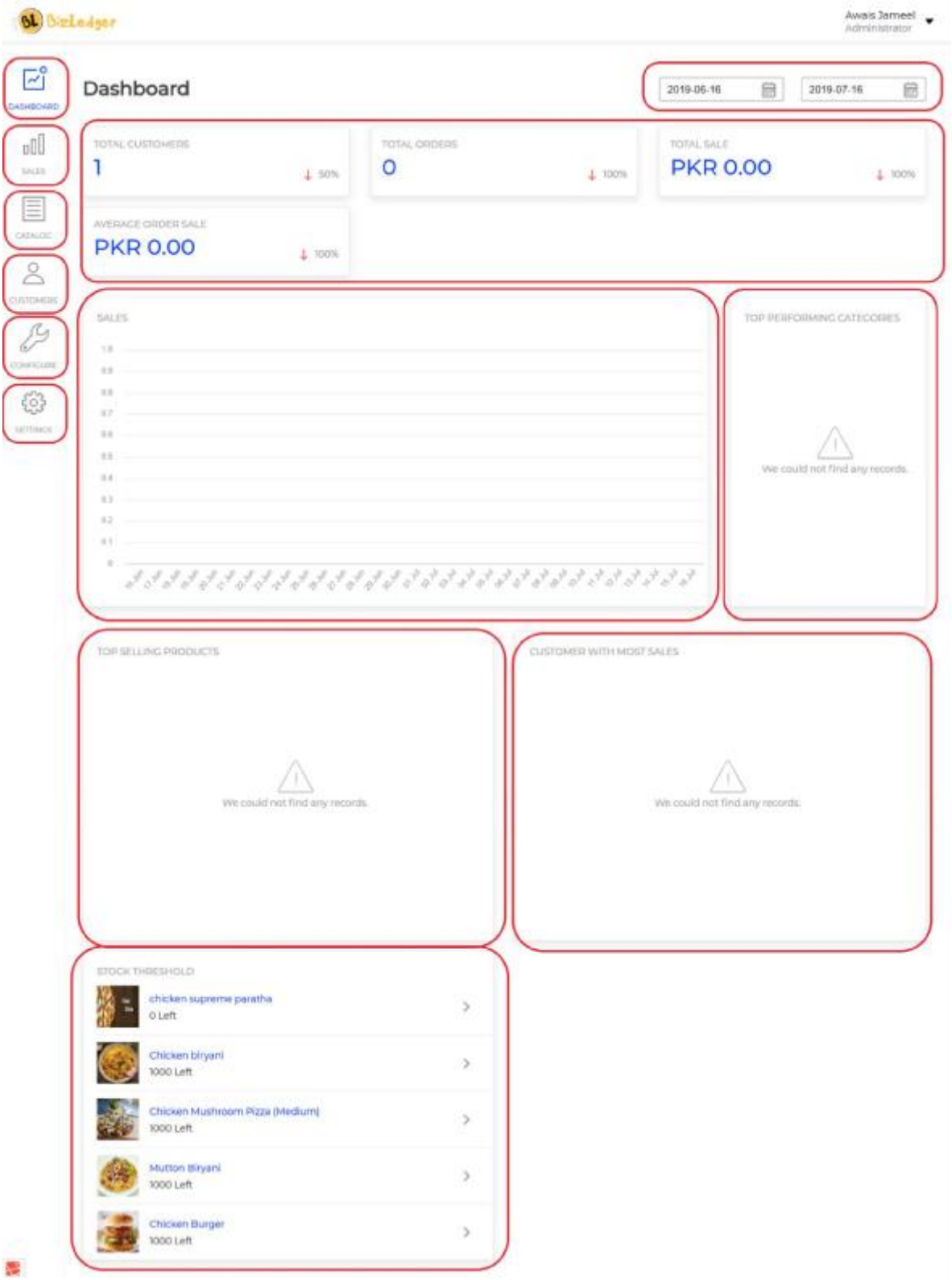


A.1.2 Password Reset

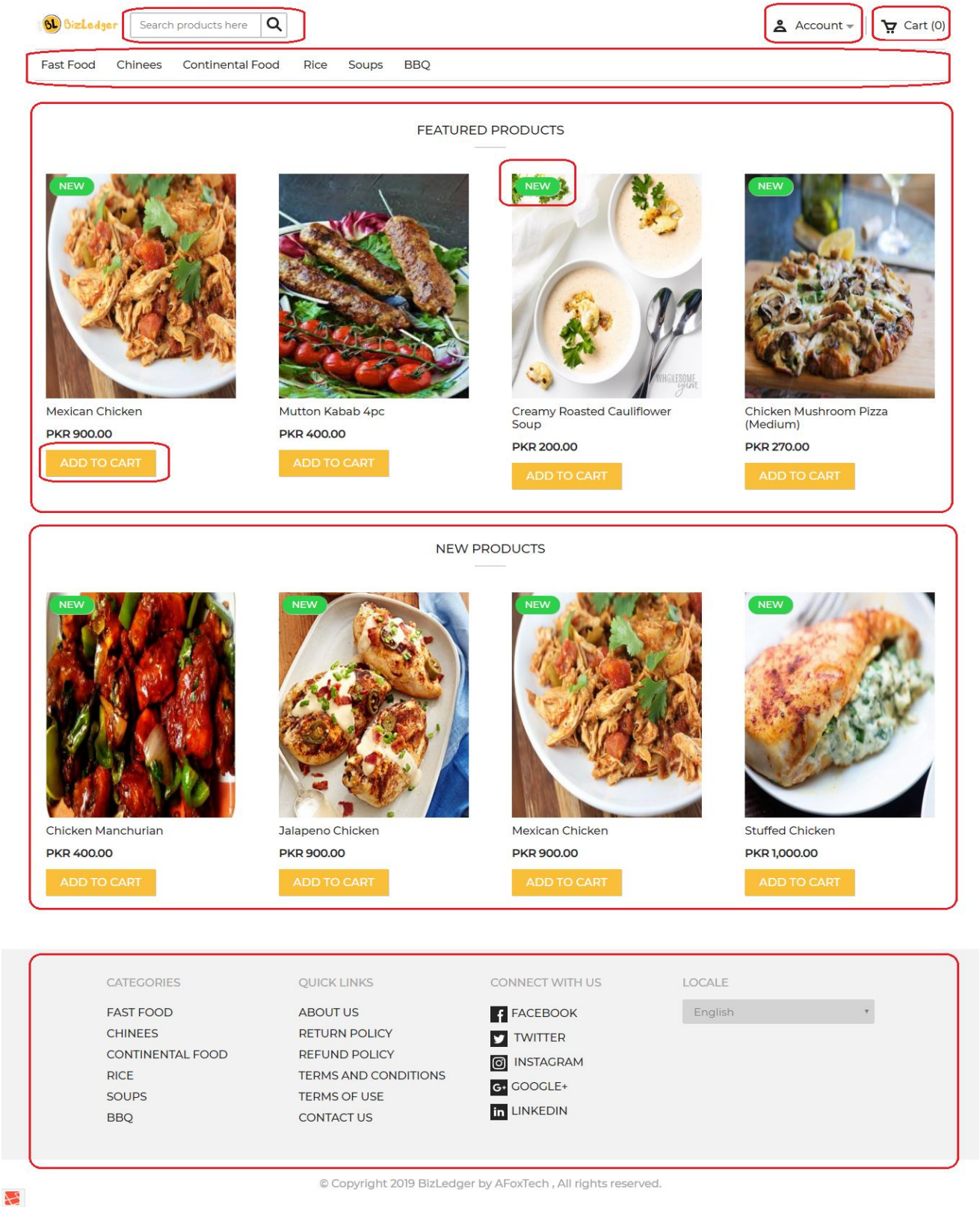
If user forgot password then user can reset their password at bizledger.com/admin/forget-password



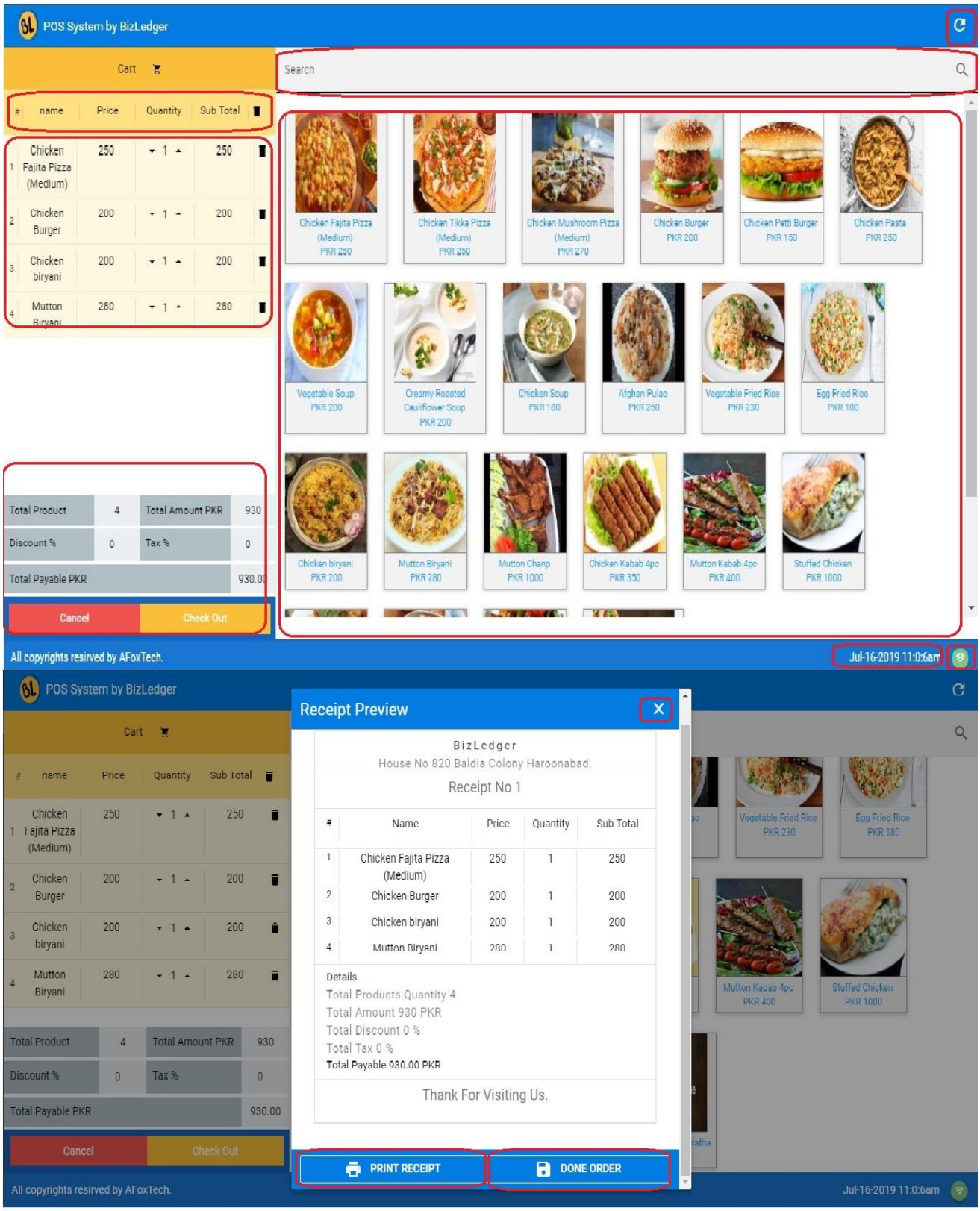
A.1.3 Admin Dashboard



A.2 E-Commerce



A.3 POS


POS System by BizLedger
Cart
Search
name Price Quantity Sub Total
1 Chicken Fajita Pizza (Medium) 250 1 250
2 Chicken Burger 200 1 200
3 Chicken biryani 200 1 200
4 Mutton Biryani 280 1 280
Chicken Fajita Pizza (Medium) PKR 250
Chicken Tikka Pizza (Medium) PKR 250
Chicken Mushroom Pizza (Medium) PKR 270
Chicken Burger PKR 200
Chicken Petti Burger PKR 150
Chicken Pasta PKR 250
Vegetable Soup PKR 200
Creamy Roasted Cauliflower Soup PKR 200
Chicken Soup PKR 180
Afghan Pulao PKR 260
Vegetable Fried Rice PKR 230
Egg Fried Rice PKR 180
Chicken biryani PKR 200
Mutton Biryani PKR 280
Mutton Chanp PKR 1000
Chicken Kabab 4pc PKR 350
Mutton Kabab 4pc PKR 400
Stuffed Chicken PKR 1000
Total Product 4 Total Amount PKR 930
Discount % 0 Tax % 0
Total Payable PKR 930.00
Cancel
Check Out
All copyrights resirved by AFoxTech.
Jul-16-2019 11:0:6am
Receipt Preview
BizLedger
House No 820 Baldia Colony Haroonabad.
Receipt No 1
Name Price Quantity Sub Total
1 Chicken Fajita Pizza (Medium) 250 1 250
2 Chicken Burger 200 1 200
3 Chicken biryani 200 1 200
4 Mutton Biryani 280 1 280
Details
Total Products Quantity 4
Total Amount 930 PKR
Total Discount 0 %
Total Tax 0 %
Total Payable 930.00 PKR
Thank For Visiting Us.
PRINT RECEIPT
DONE ORDER