

SZABIST

**(SHAHEED ZULFIQAR ALI BHUTTO INSTITUTE OF
SCIENCE AND TECHNOLOGY)**

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NAME OF COURSE

SOFTWARE ENGINEERING

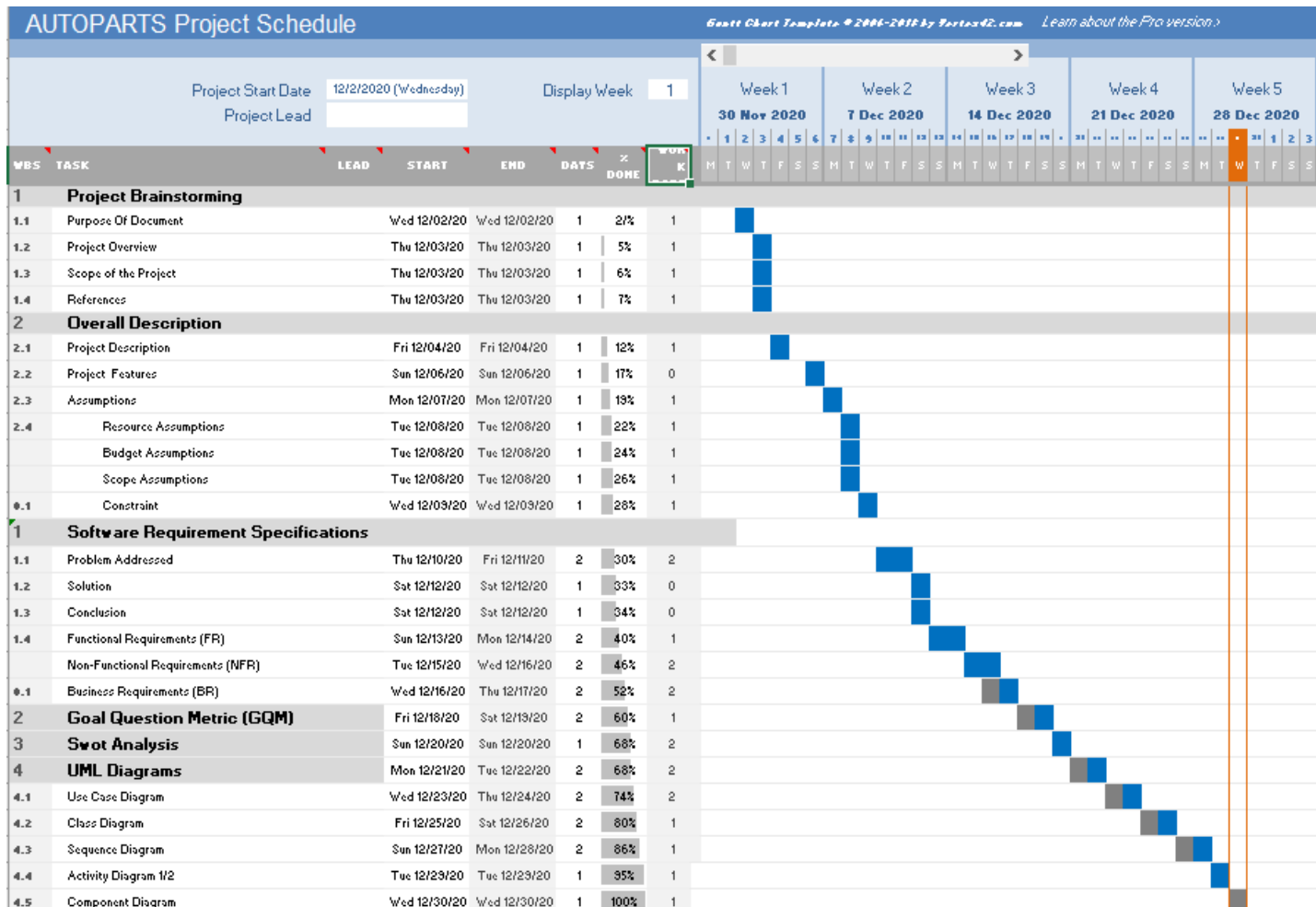
NAME OF SUPERVISOR

DR ADEEL ANSARI

DATE OF SUBMISSION

DECEMBER 2020

GANTT CHART:



ABSTRACT:

The project is an online auto parts company. The company has multiple stores and several warehouses where parts are stocked. There is also a third-party supplier that supplies some auto parts that are not stocked in the warehouse. Some auto parts fit to a number of vehicles and therefore are labelled as general parts. The auto parts are classified into various categories namely electrical parts, engine parts, accessories etc. The vehicle parts are stored according to their make, model and year of production.

The search for spare parts should be simple and convenient. Our project is designed with your help to create such a search functionality that would meet all the requirements of spare parts buyers.

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INTRODUCTION:

In this auto parts project, we provide features for buyers and sellers at one place. Dealers can add their part details. All required features are also previewed there. Buyer can search any of the car parts according to his/her required features. User can view dealer feedback and reputation as added by previous buyers.

PURPOSE OF DOCUMENT:

The purpose of this document is to describe the requirements for the users to buy and sale the car parts. Document includes all specifications of website include security. Developers should consult this document and its revisions as the only source of requirements for the project. They should not consider any requirements statements, written or verbal as valid until they appear in this document or its revision. Through this document the working of the project would be clear.it tells you what are the requirements of the system what is the functionality of the system, and what the system will do.

PROJECT OVERVIEW:

Our project includes dealing between seller and buyers. Our website has the facility to give a unique id for every user and details of every user. User can search availability of a deals related website using the id. The user can be entered using a username and password. It is accessible either by a seller or buyer. User can enter their requirements, actually describes what the user want. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

SCOPE OF THE PROJECT

Our scope will mainly cover the function of customer order, price, parts summary and parts stock. Online transaction with bank and shipment with shipping company are available. When selling spare parts, it is important to give customers comprehensive information about the part, its applicability and cross-linking. It is important to have up-to-date car parts databases to offer spare parts for even the most "fresh" vehicles.

REFERENCES:

<https://pmi-nnv.org/document-repository/presentation-archive/621-pmi-nnv-may-2014-project-assumptions-constraints/file>

<https://www.projectmanager.com/blog/10-project-constraints-that-endanger-your-projects-success>

OVERALL DESCRIPTION:

PRODUCT DESCRIPTION:

Our online store will assist its customers in selecting the best parts for their application at a price that meets or exceeds their expectations. In the event of a problem, we will be there to assist and counsel the customer to a speedy solution.

PRODUCT FEATURES:

The online store offers its customers different ways to navigate through the website:

- They can start their shopping journey from the search bar and type the name of the part they need.
- Users might select the year, make and model of their car at first and see what the website offers that match the vehicle.
- Or they can drill-down the special pages – mini-stores – with each of them dedicated to a particular manufacture brand. Such a page has a brand-specific header image, features 5 best-selling products, and contains all the categories you can find auto parts for this brand.
- Sell by scanning barcode
- Thermal billing supported with option to select and customize the template
- Managing the multiple price scheme is simple
- Purchase, Sales Register track daily stock movement
- Manage different type of payment mode while sales
- Configurable product button in sales screen is easy

ASSUMPTIONS:

Resource Assumptions

- An assumption made on projects for human resources is that individuals will work 40 hours per week on the day shift.
- That energy resources like electricity will be on during working hours.
- The materials to complete the project will be readily available to be utilized.

Budget Assumptions

- margin of error,
- percentage allocation for resources
- material costs based a certain source
- the overall cost of day-to-day activity will not
- increase
- personnel costs will not change
- overall economical conditions will stay the same

Scope Assumptions

- Scope doesn't change
- If it should; project will follow a change control approval process

Constraint:

- You must finish 25% of the project work within 30 days
- You must work within the available resources.
- You must deliver the project within the deadline.

SOFTWARE REQUIREMENT SPECIFICATION-(SRS):

PROBLEM ADDRESSED:

Recently demand of our product was declining and our company was going through financial crises. We received multiple complaints about our deteriorating quality of products.

SOLUTION:

We took action and slightly increased the price of auto parts and in turn invested in the quality of our products.

CONCLUSION:

And by doing so after some time our companies financial status came back on track.

FUNCTIONAL REQUIREMENTS:

1. **Account Creation:** Every member has to create their accounts for security reasons to avoid intruders and to keep track of their activities and sales.
2. **Scope:** The scope of our software is to sell and buy used and new auto parts.
3. **Level:** The level of our software is to reach user goals.
4. **Primary Actor:** Our primary actors are Cashier, Customer and Manufacturer.
5. **Stakeholders and Interests:** Our primary stakeholders include Customers, Dealers, Suppliers, Employees and Community.
6. **Preconditions:** We don't have any preconditions.
7. **Post conditions:** Account has been created successfully details saved for future use. The dealer's details have been saved.
8. Contain **database** of the system that is administered by the system admin.

NON-FUNCTIONAL REQUIREMENTS:

1. **Security:** The website that we are going to establish must be secure from unauthorized access
2. **User Identification:** The system requires the user to identify himself /herself using their authorized registration number.
3. **Login ID:** Any user who uses the system shall have a Login ID and Password.
4. **Modification:** Any modification (insert, delete, and update) for the Database shall be synchronized and done only by the administrator.
5. **Administrators Rights:** Administrators shall be able to view and modify all information.
6. **Performance Requirements:** It is acceptable for system performance to be poorer than normal for up to 3 business days following the failure and replacement of a piece of hardware.

7. **Response Time:** The system shall give responses in 1 second after checking the user provided information.
8. **Capacity:** The System must support 100 or more than that people at a time.
9. **User-interface:** The user-interface screen shall respond within 5 seconds.
10. **Conformity:** The systems must confirm to the Microsoft Accessibility guidelines.
11. **Maintainability:** The system must have the feature of maintainability.
12. **Back Up:** We provide safety of our customer's data by backing up our database to another system.

BUSINESS REQUIREMENTS:

Although our auto parts retail store business might not be as big but will ensure that we put the right structure in place that will support the kind of growth that we have in mind while setting up the business.

We will ensure that we hire people that are qualified, honest, customer centric and are ready to work to help us build a prosperous business that will benefit all the stake holders (the owners, workforce, and customers). As a matter of fact, profit-sharing arrangement will be made available to all our senior management staff and it will be based on their performance for a period of ten years or more.

In view of that, we have decided to hire qualified and competent hands to occupy the following positions;

- Chief Executive Officer (Owner)
- Store Manager
- Human Resources and Admin Manager
- Merchandize Manager
- Sales and Marketing Manager
- Information Technologist
- Accountants / Cashiers
- Sales Agents / Customer Services Executive
- Cleaners
- Roles and Responsibilities

GOAL QUESTION METRIC

Goal:

I want the system to keep historical records logging of events and process executed in or by an application.

Question:

Do you want the system to have a separate login for viewing historical records or anyone can view it?

Can the user view his/her login history?

Do you want to set a build in yearly timer after which the history of the previous year would be deleted or backed up and then deleted?

Metric:

Define more specific security loggings to allow recreating a clear picture of security events

Goal:

Project should be within budget and completed within given deadline.

Questions

What's the deadline for delivering the project?

What exactly is the expected outcome?

How much money is available to achieve this outcome?

Metric:

If you decide to extend the scope and build 20 webpages instead of 10, you'll need more time and money to achieve that adjusted goal.

Deadline is of 4 months

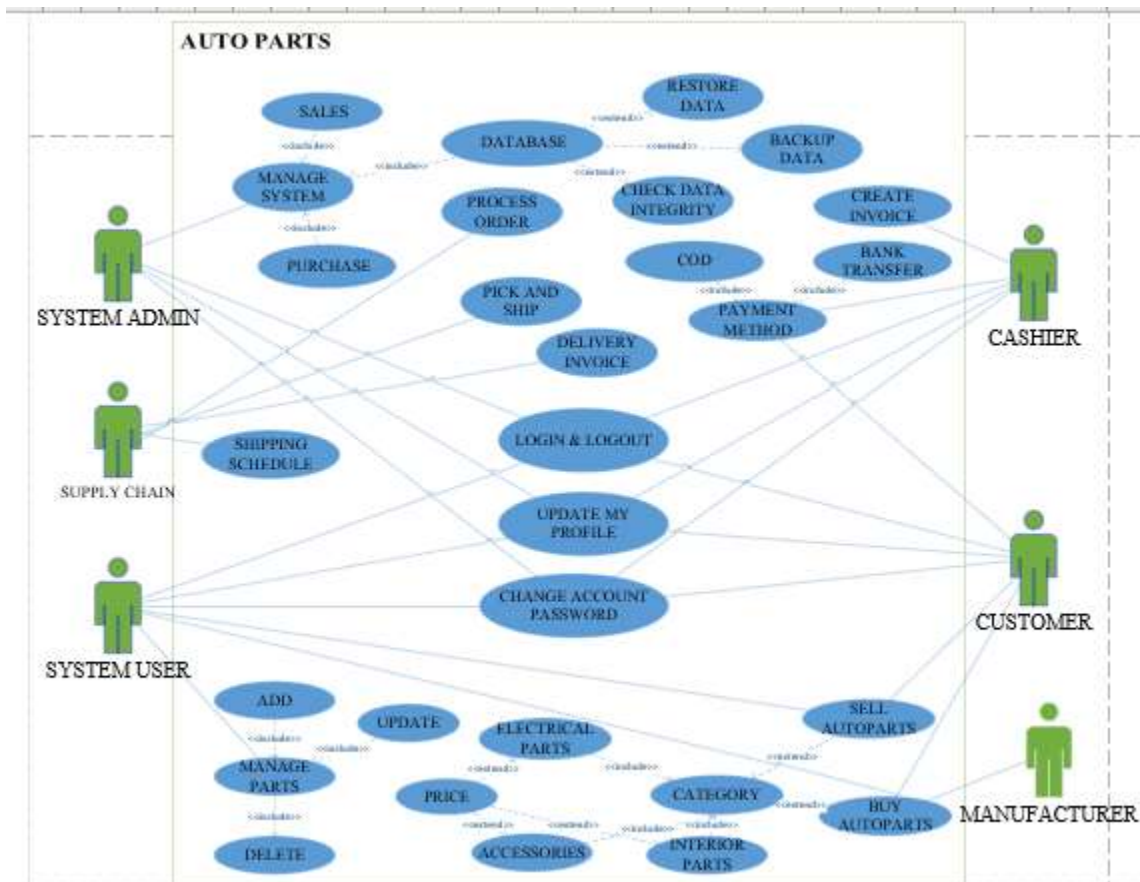
Website should be user friendly

SWOT ANALYSIS

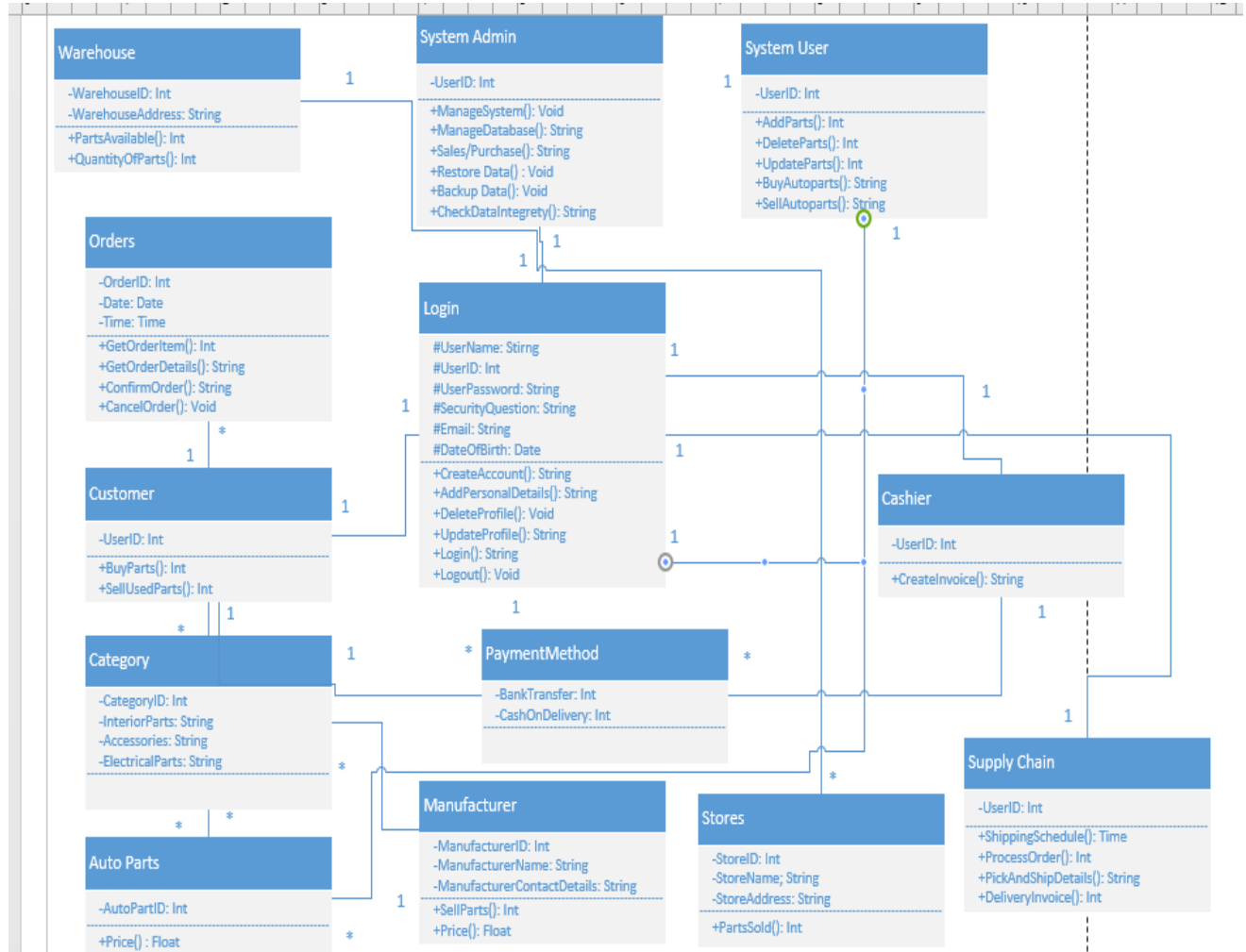
<p style="text-align: center;"><u>STRENGTHS</u></p> <ul style="list-style-type: none"> • We will be operating on both (physical store and online store). • We would have varieties of payment options. • We provide wide range of auto parts from different manufacturing brands. • Our excellent customer service culture will definitely count as a strong strength. • Our team of highly qualify staff members is also a plus for the business. 	<p style="text-align: center;"><u>WEAKNESS</u></p> <ul style="list-style-type: none"> • A major weakness that may count against us is the fact that we are a new auto parts retail store. • We don't have the financial capacity to compete with other auto parts retail store.
<p style="text-align: center;"><u>OPPORTUNITIES</u></p> <ul style="list-style-type: none"> • We have been able to conduct thorough feasibility studies and market survey and we know what our potential clients will be looking for when they visit our auto parts store. • We are well positioned to take on the opportunities that will come our way. 	<p style="text-align: center;"><u>THREATS</u></p> <ul style="list-style-type: none"> • One of the major threats that we may face is economic downturn. It is a reality that economic downturn affects purchasing / spending power. • Another threat that may likely confront us is the arrival of a new auto parts retail outlet in same location where ours is located. • Unfavorable government policies may also pose a threat for businesses such as ours. • Receiving complaints from clients about quality standards

UML DIAGRAMS

USE CASE DIAGRAM:

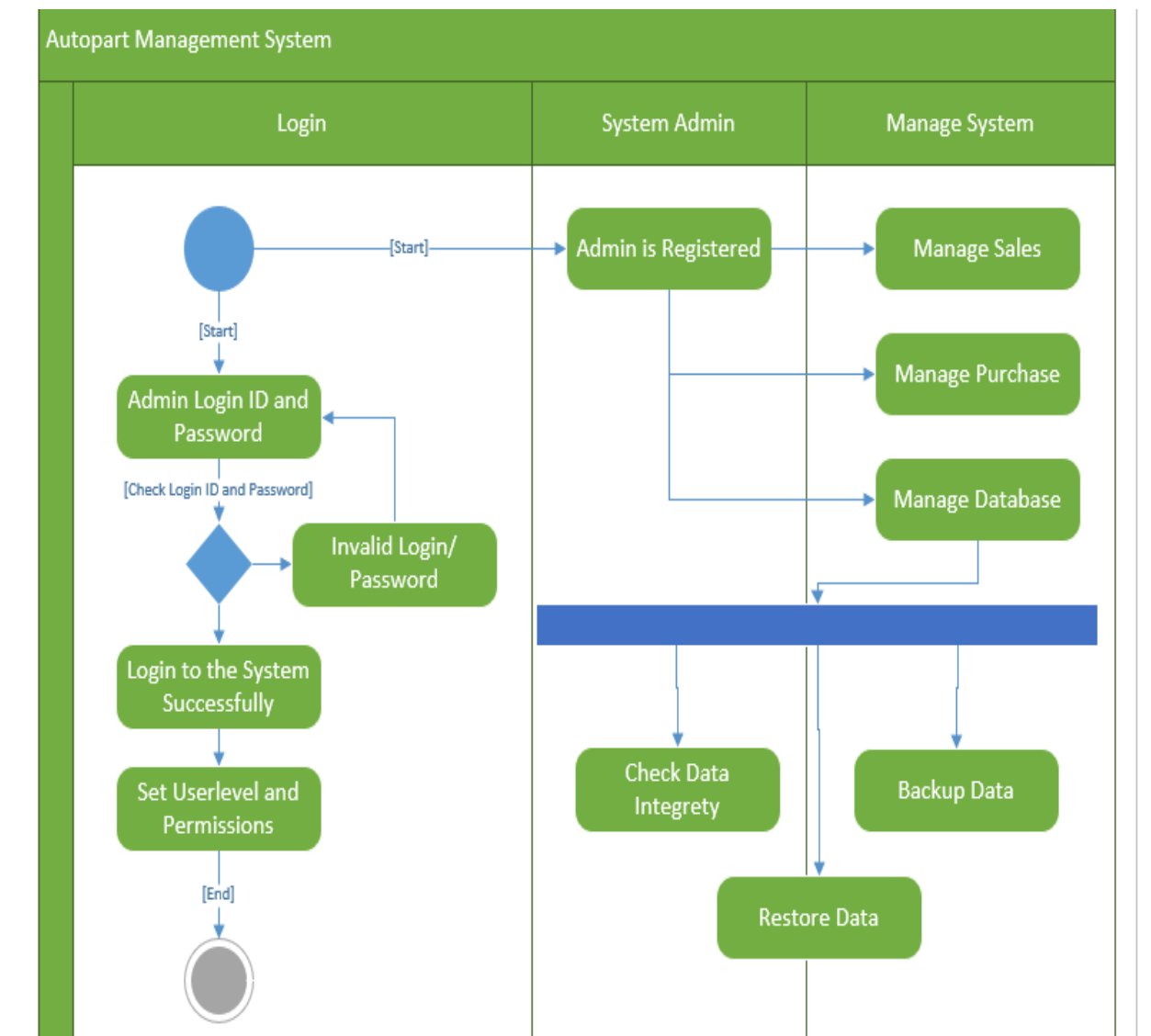


CLASS DIAGRAM:

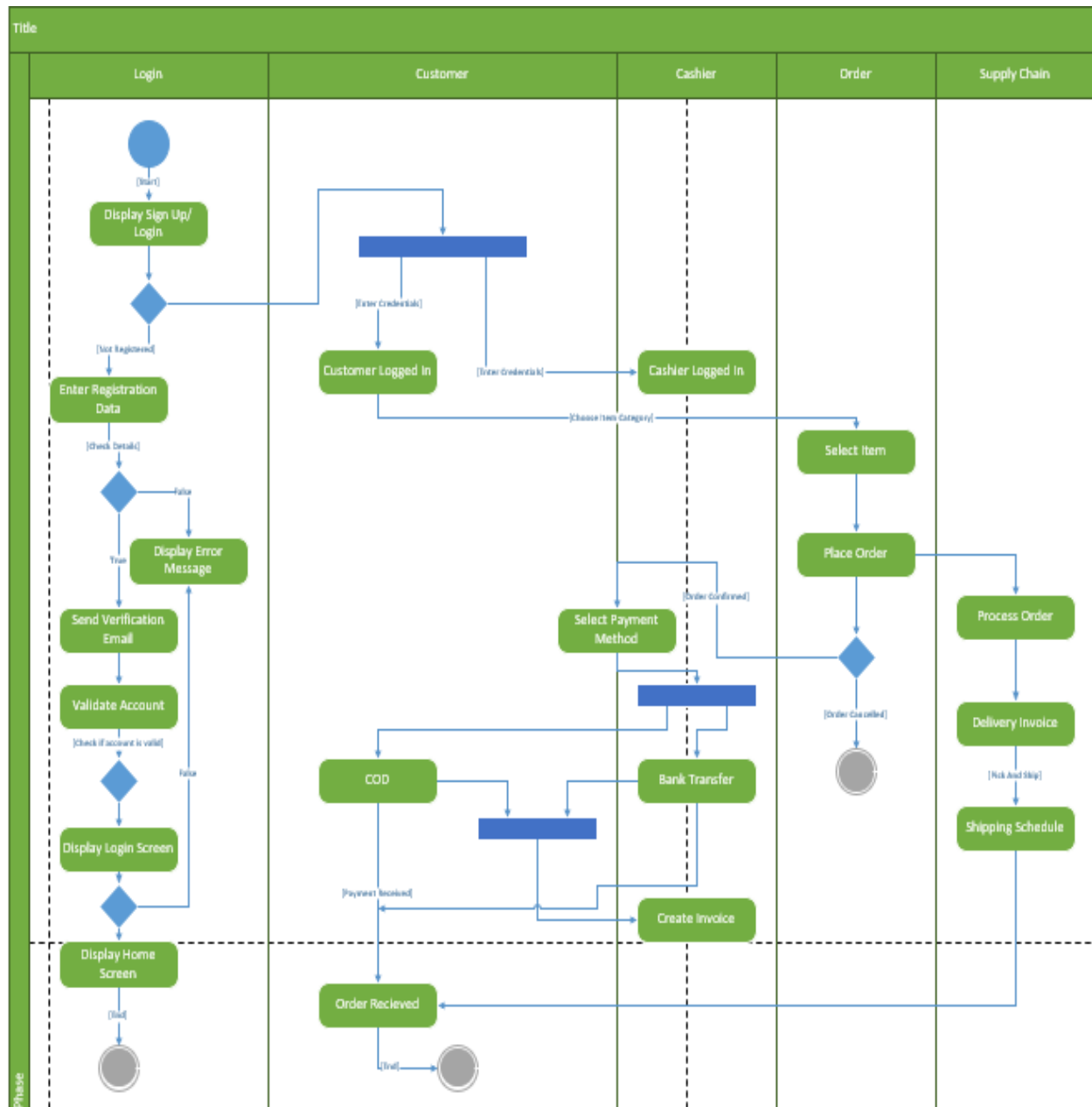


ACTIVITY DIAGRAM

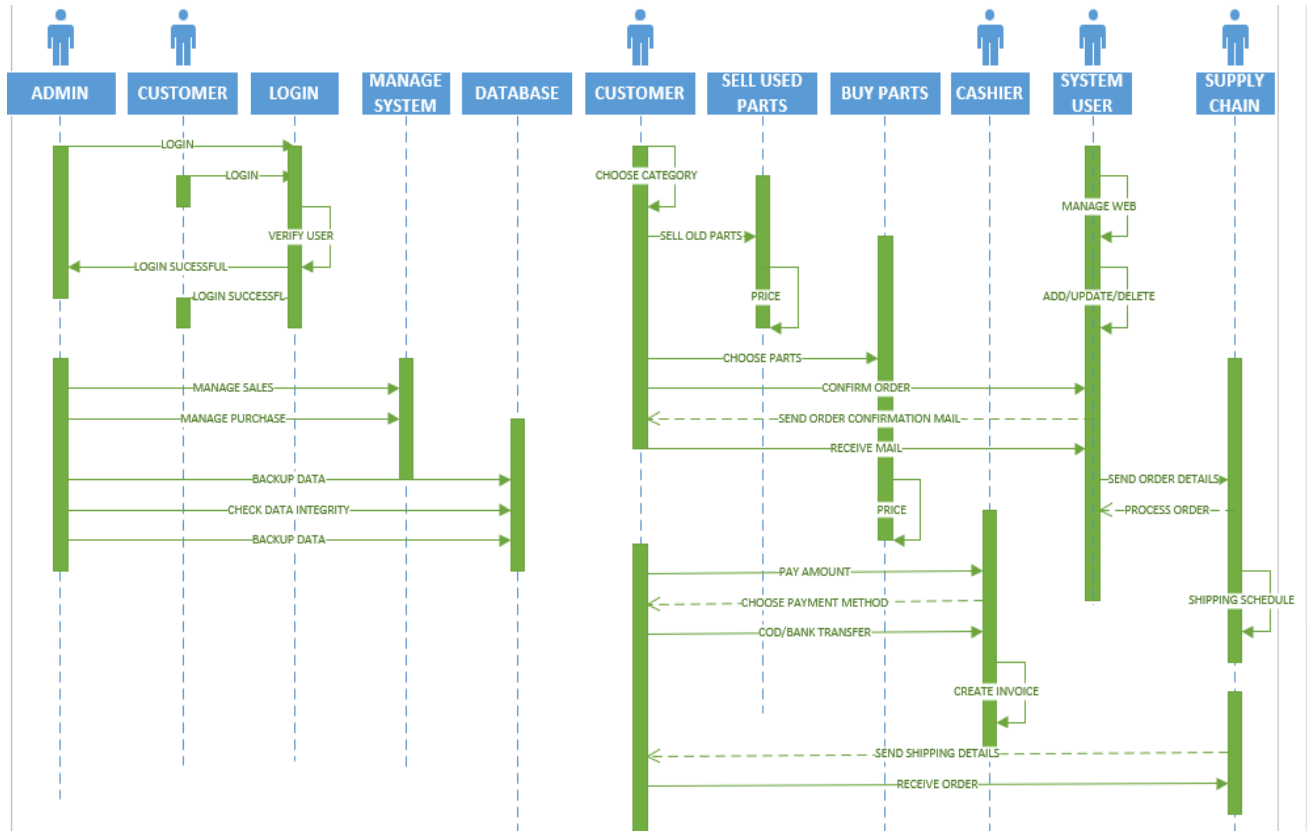
(1)



(2)



SEQUENCE DIAGRAM



COMPONENT DIAGRAM

