

### **What is SDLC?**

SDLC stands for System development life cycle.

- This is one type of model and every organization is use for planning, implementation, implementation and deployment of product or project.

### **What is software testing?**

- software testing means it's one type of process users need to complete, correctness, and quality of developed any software
- Or we can say: to check the quality of each module for Web/App software and is it worked as per customer specification, this type of checking is called software testing.
- Software testing is the process of assessing the functionality of a software product or project.
- The process checks errors gaps and output of the desired expectation before the software is live or install in the system.

### **What is SRS?**

SRS stands for software requirements specification.

- It is one type of documents that describes what software will do and how it will be expected to perform
- Also it's showcased functionality of the product or project from User side as well as requestor side.

### **What is oops?**

OOPS stands for Object oriented programing structure

- OOPS Ultimately about taking huge problems and breaking it down in small chunks.
- It is useful for code data easily write, read and binding, wrap the data/ code.
- OOPs provides facility to programmer writing complex pieces of code easily and it's also allow users to handle, maintain things easily.

### **Write Basic Concepts of oops?**

- Object, class, inheritance, encapsulation, abstraction, polymorphism.
- Method overloading and method overriding.

### **What is object?**

Obeject means anyitem which has own behaviour.

- A self contained components which consists of methods and properties to make a particular type , it is called object.

### **What is class?**

Collection of object and nodes means class.

- Class is creating objects Providing initial values for state and implementation of behaviour.

### **What is encapsulation?**

- Encapsulation means those things are wrapped to data which is call encapsulation

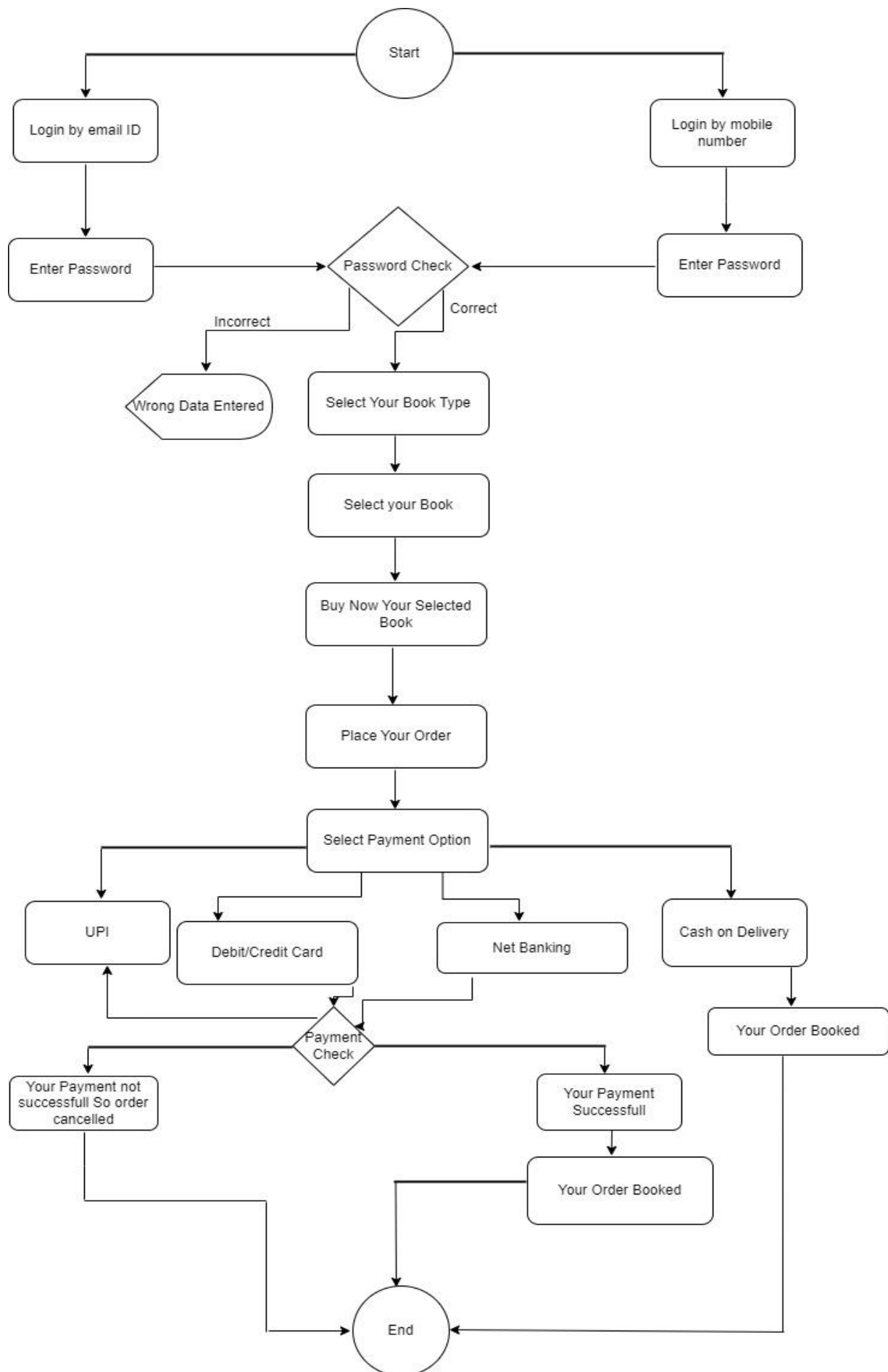
### **What is inheritance?**

- Anyone can use any properties one class derive property to another object or class which is called inheritance

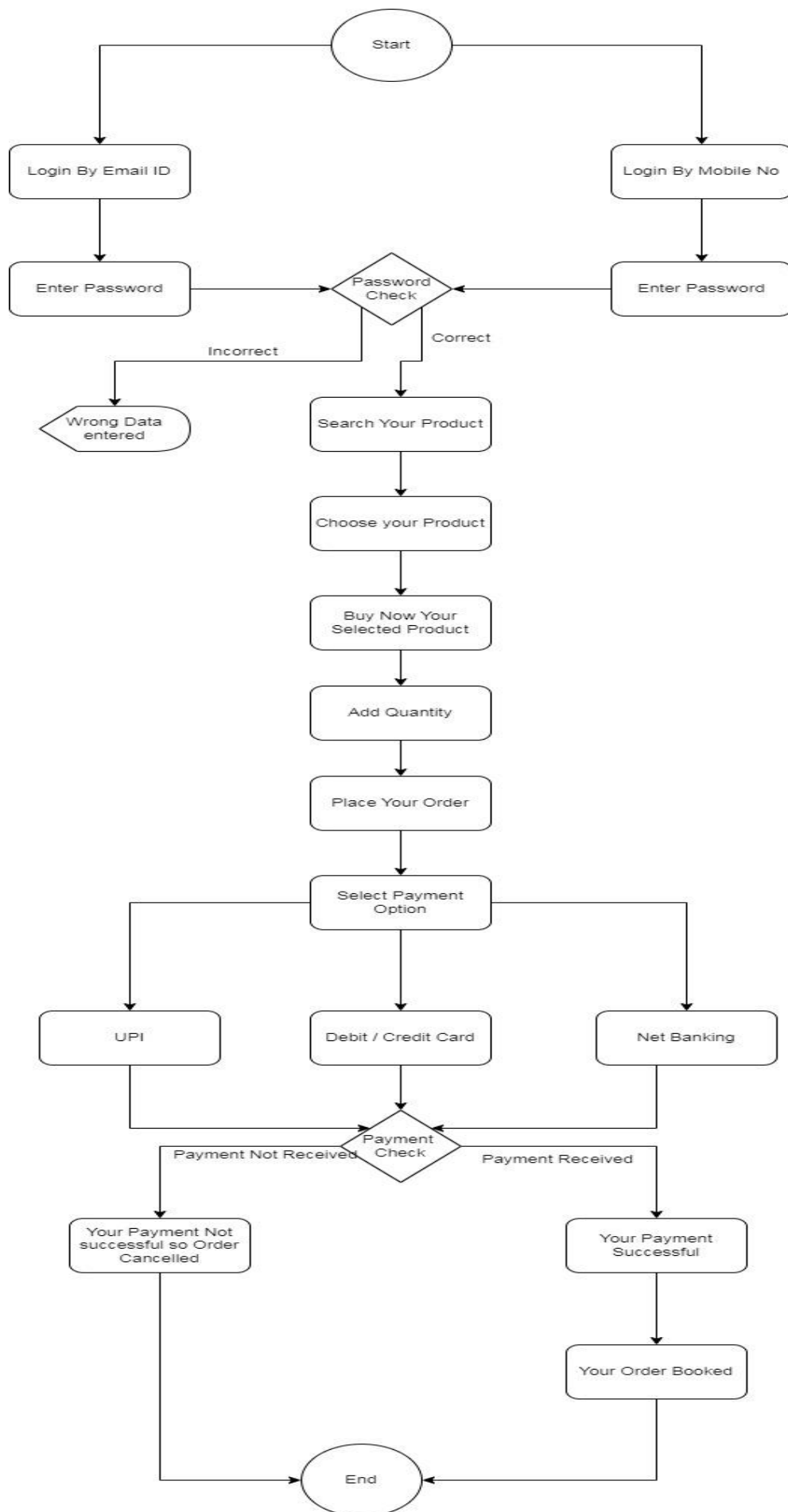
### **What is polymorphism?**

- Poly is a greek word and it's means **many**
- So many ways to use any class or properties which is called polymorphism
- Or ability of a message to be displayed in more than one form
  
- Example: A person who at the same time can have different characteristic.

### **Draw Usecase on Online book shopping:**



Draw Usecase on online bill payment system (paytm)



## Write SDLC phases with basic introduction

It is framework that defines steps involved in the development of software each phase. All the tasks involved in planning, creating, testing and deploying a software product.

Here are the phases of SDLC.

- **Requirements gathering** : All the relevant information is collected from the customer to develop a product.
- **Analysis** : as per customer model and expectations or requirements or project builder need to know what is purpose of the product.
- **Design** :once information is gathered then after in the specification based architecture is used for implementing system development is derive.
- **Implementation** : once design and specification finalized based on that developer start coding it is call implementation:
- **Testing** : Once the coding is done and the product are released for testing, It is tested thoroughly and any defect found are provided to developer to get them fixed.
- And finally go through the **deployment stage**
- **Maintenance** : After deployment of the product on the production environment.then after if any issue rise and needs to be fixed it by the developer.

## Explain Phases of the waterfall mode

As it is above.

## Write phases of spiral model

Spiral model is combination of sequential and prototype models.

There are specific activities that are done in one iteration where the output is smaller small prototype of the large software

A software project repeatedly passes through these phases in iterations.

Here are the phase of spiral model.

- Planning : start with gathering system information.
- Risk analysis
- Engineering
- Customer Evaluation

## Explain working methodology of agile model and also write pros and cons

Agile model is practice that promotes continuous iteration of development and testing throughout the SDLC of the project.

This model is approaches that planning, learning, improvement, team collaboration, evolutionary development, and early delivery. It encourages flexible responses to change.

Pros

- It is very flexible model functionality can be changed any time.

- Product get to market faster : Delivers early partial working solutions.
- Dynamic model :Good model for environments that change steadily
- A face-to-face conversation is the best form of communication.
- It continuously gave attention to technical excellence and good design.
- Customer satisfaction is rapid, continuous development and delivery of useful software.
- Minimum resource requirement but project expert required

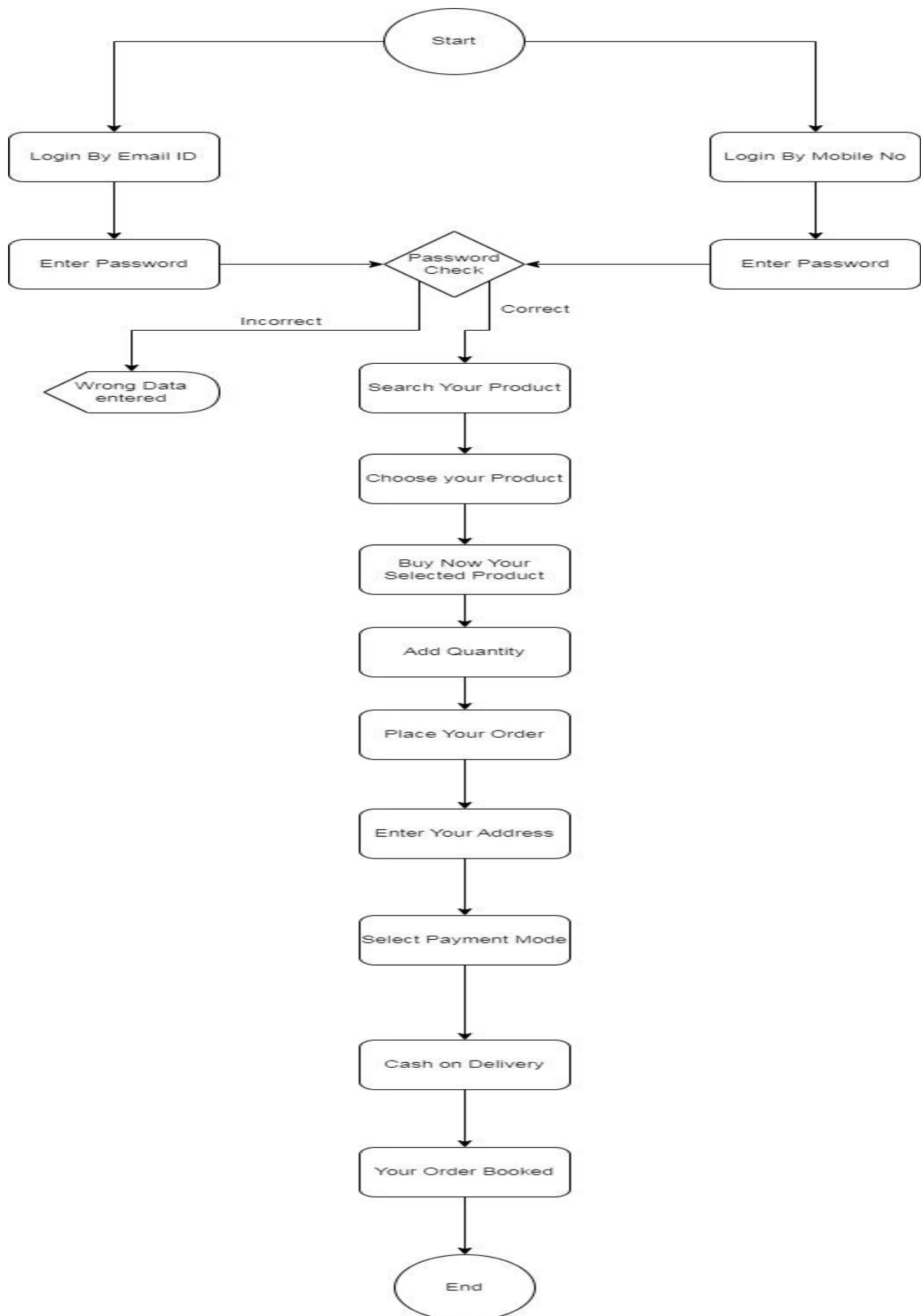
#### Cons

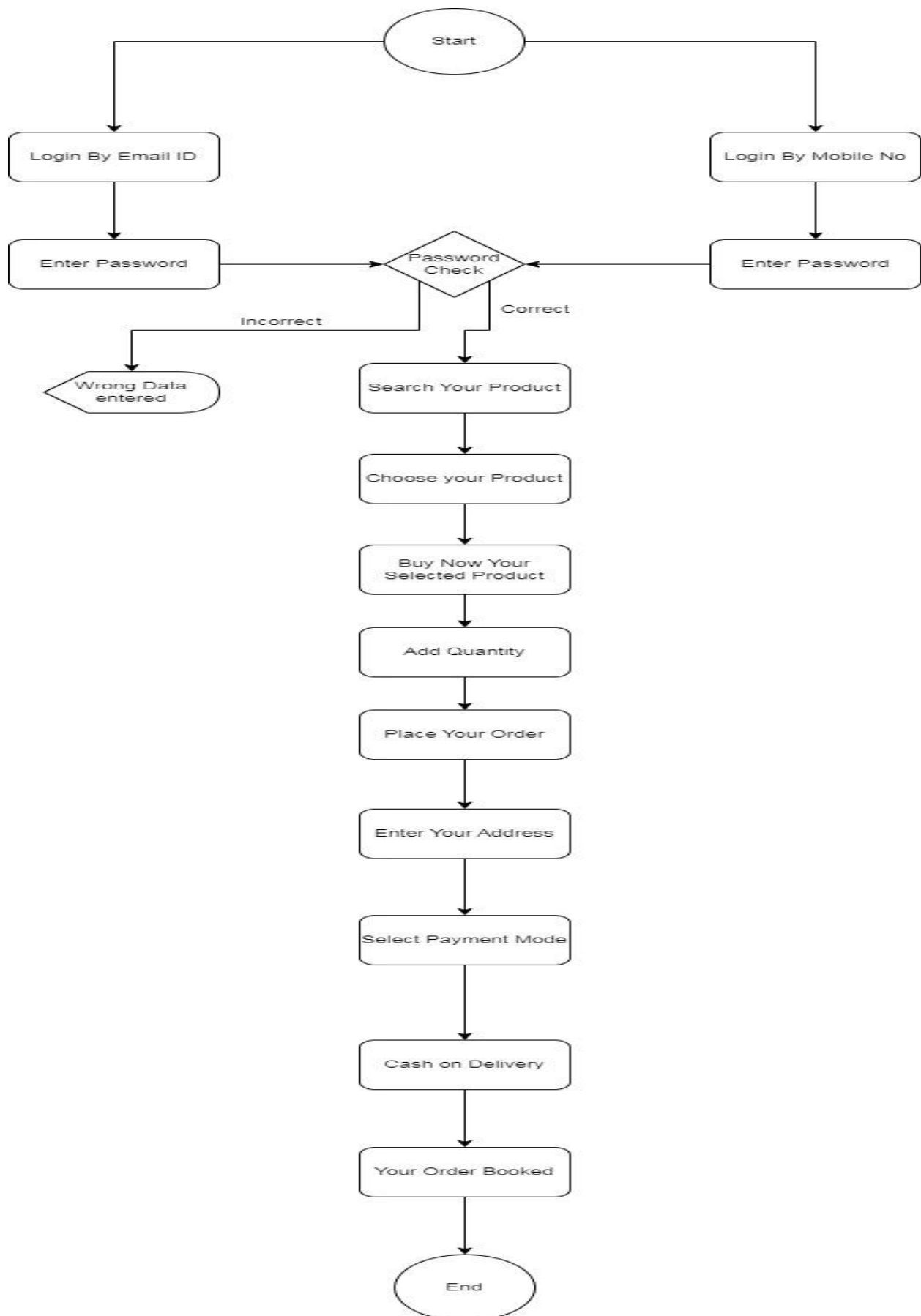
- Poor resource planning
- Not useful for small development project
- Documentation gets left behind : There is a lack of intensity on necessary designing and documentation.
- It requires an expert project member to take crucial decisions in the meeting.
- Challenging to train new team members due to new transfer of technology & lack of documentation

**Draw usecase on Online shopping product using COD**









**Draw usecase on Online shopping product using payment gateway**

