Module-1(Fundamentall)

Q.1 What is SDLC

A Software Development Life Cycle is essentially a series of steps, or phases, that provide a model for the development and lifecycle management of an application or piece of software.

There are 6 Phases of SDLC

1. Requirement Gathering
2. Analysis
3. Design
4. Implementation
5. Testing
6. Maintenance

Q.2 What is Software testing?

Software Testing is a process used to identify the correctness, completeness, and quality of developed computer software.

It can also be stated as the process of validating and verifying that a software program or application or product.

Q.3 What is agile methodology?

Agile SDLC model is a combination of iterative and incremental process models with focus on process adaptability and customer satisfaction by rapid delivery of working software product.

There are no timeline to ends agile methodolog projects.

Q.4 What is SRS?

A software requirements specification (SRS) is a complete description of the behavior of the system to be developed.

Use cases are also known as functional requirements. In addition to use cases, the SRS also contains nonfunctional requirements.

Non-functional requirements are requirements which impose constraints on the design or implementation

Q.5 What is oops

Object-oriented programming has a web of interacting objects, each house-keeping its own state.

Identifying objects and assigning responsibilities to these objects.

An object is like a black box. The internal details are hidden.

Q.6 Write Basic Concets of oops.

1)Object : Any entity which has own state and behaviour

Ex: pen,paper

2)class: Collection of objects

Ex: human body

3)Abtraction: Hiding internal details and showing funcitionalities

Ex: Login page

4)Encapsulation: Wrapping up of data or binding of data

Ex: capsule

5)Inheritance: When one object acquire all the properties and behviour of parent class

Ex: father-son

6) Polymorphism: Many ways to perform anyting

Ex: 1.Method overloaing

2.Method overriding

Q.7 What is Object

This is the basic unit of object oriented programming(OOP).

That is both data and function that operate on data are bundled as a unit called as object.

Q.8 Wha is class

A class represents an abstraction of the object and abstracts the properties and behavior of that object.

When you define a class, you define a blueprint for an object.

Q.9 What is encapsulation

Encapsulation is the practice of including in an object everything it needs hidden from other objects. The internal state is usually not accessible by other objects.

Q.10 What is inheritance

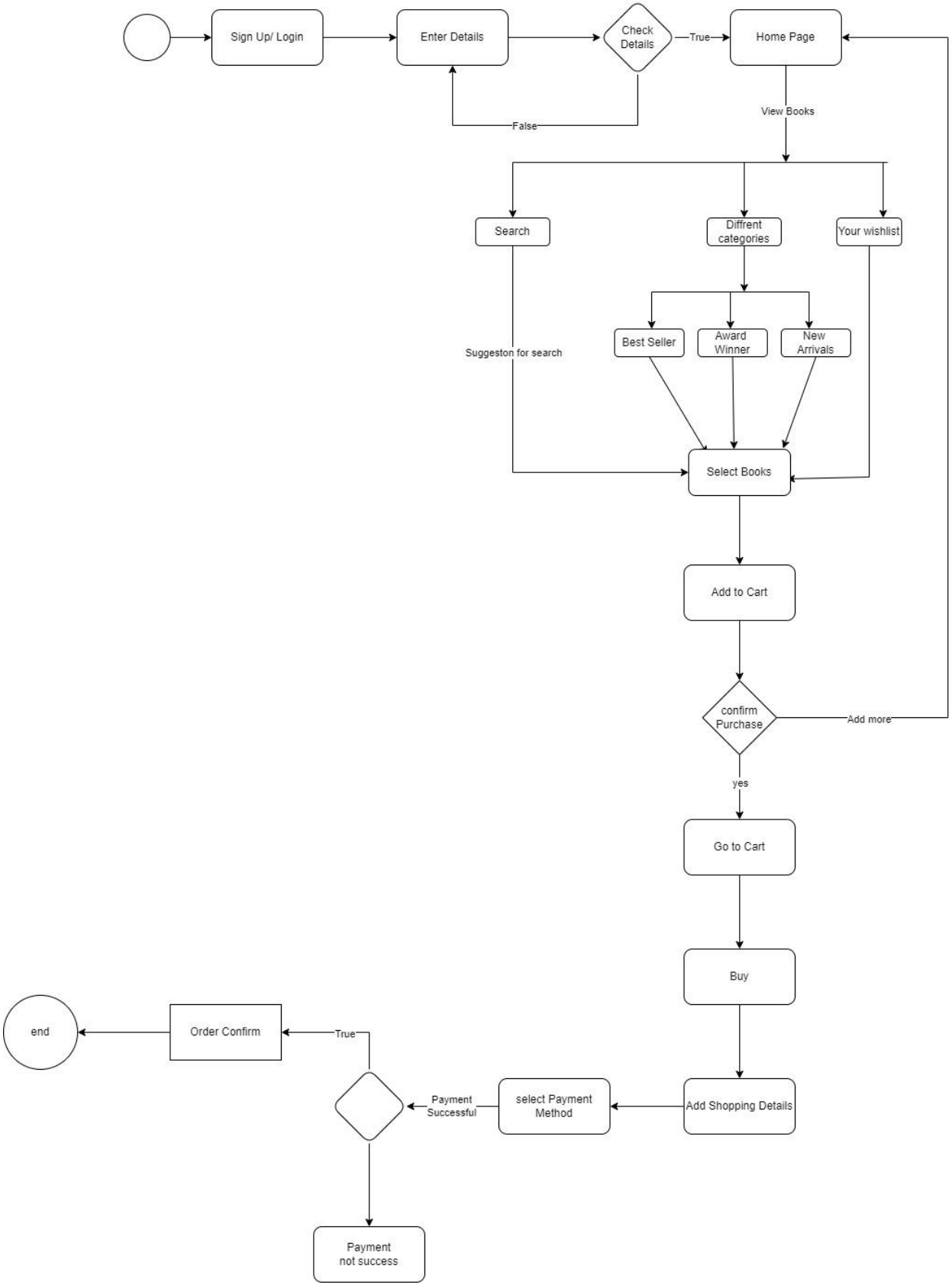
Inheritance means that one class inherits the characteristics of another class. This is also called a “is a” relationship.

Q.11 What is polymorphism

Polymorphism means “having many forms”.

It allows different objects to respond to the same message in different ways, the response specific to the type of the object.

Q.12 Draw Usecase on Online book shopping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Search
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Your wishlist
Suggeston for search
Best Seller
Award Winner
New Arrivals
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Add to Cart
confirm Purchase
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Go to Cart
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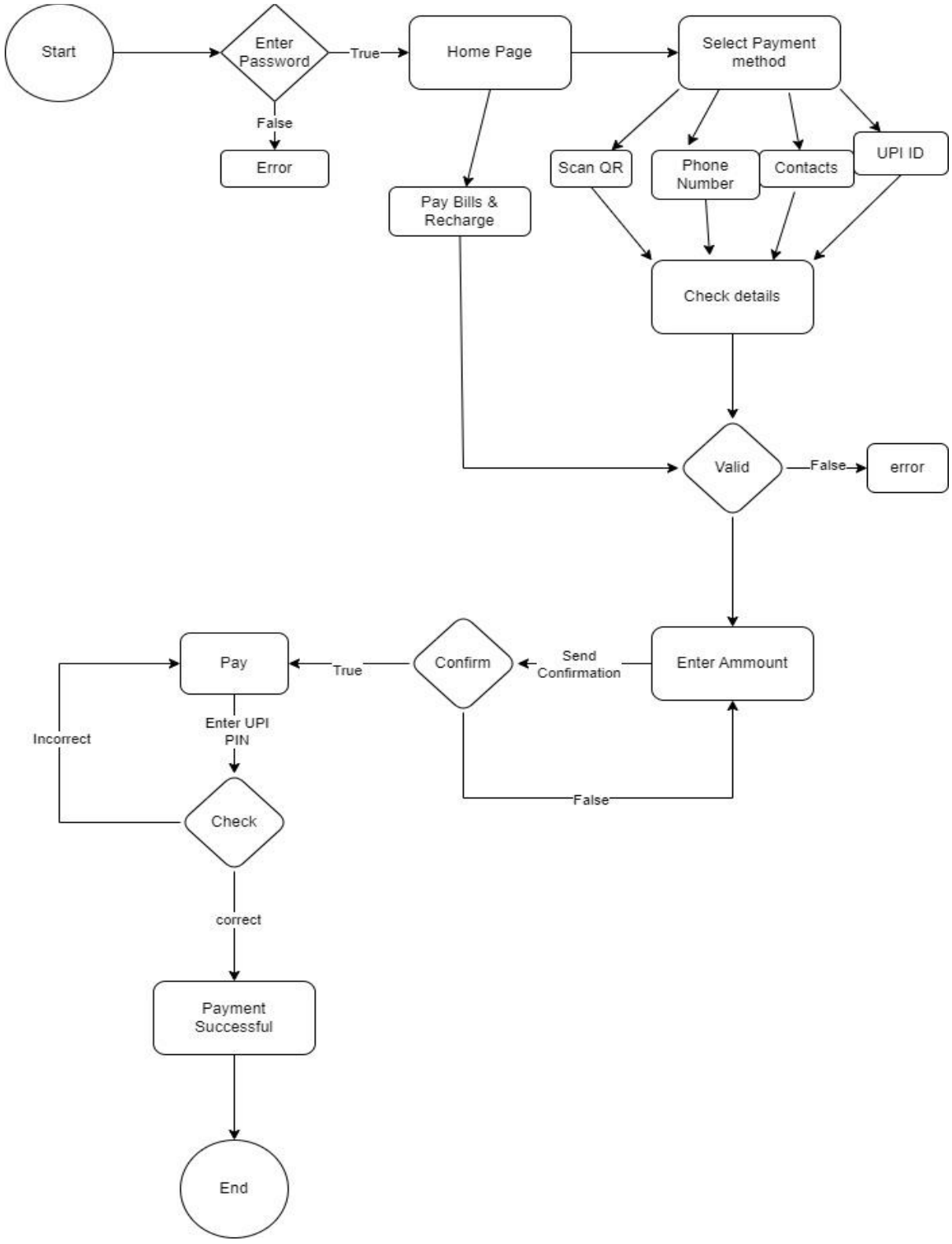
Payment Successful
Order Confirm
True
end
Payment not success

Q.13 Draw Usecase on online bill paymet system.



Q.14 Write SDLC phases with basic introduction

1) Requirements Gathering = Establish Customer Needs
2) Analysis = Model And Specify the requirements“What”
3) Design = Model And Specify a Solution – “Why”
4) Implementation = Construct a Solution In Software
5) Testing = Validate the solution against the requirements
6) Maintenance = Repair defects and adapt the solution to the new requirements

Q.15 Explain Phases of the waterfall model

Requirements are very well documented, clear and fixed. Product definition is stable. Technology is understood and is not dynamic.

There are no ambiguous requirements. Ample resources with required expertise are available to support the product. The project is short.

Q.16 Write phases of sprial model

Spiral Model is very widely used in the software industry. When costs there are a budget constraint and risk evaluation is important.

For medium to high-risk projects. Long-term project commitment because of potential changes to economic priorities as the requirements change with time. Customer is not sure of their requirements which are usually the case.

Requirements are complex and need evaluation to get clarity. New product line which should be released in phases to get enough customer feedback. Significant changes are expected in the product during the development cycle.

Q.17 Write agile manifesto principles

Agile model believes that every project needs to be handled differently and the existing methods need to be tailored to best suit the project requirements.

Iterative approach is taken and working software build is delivered after each iteration. Each build is incremental in terms of features; the final build holds all the features required by the customer.

Agile thought process had started early in the software development and started becoming popular with time due to its flexibility and adaptability.

Q.18 Explain working methodology of agile model and also write pros and cons.

Agile SDLC model is a combination of iterative and incremental process models with focus on process adaptability and customer satisfaction by rapid delivery of working software product.

Agile Methods break the product into small incremental builds. These builds are provided in iterations.

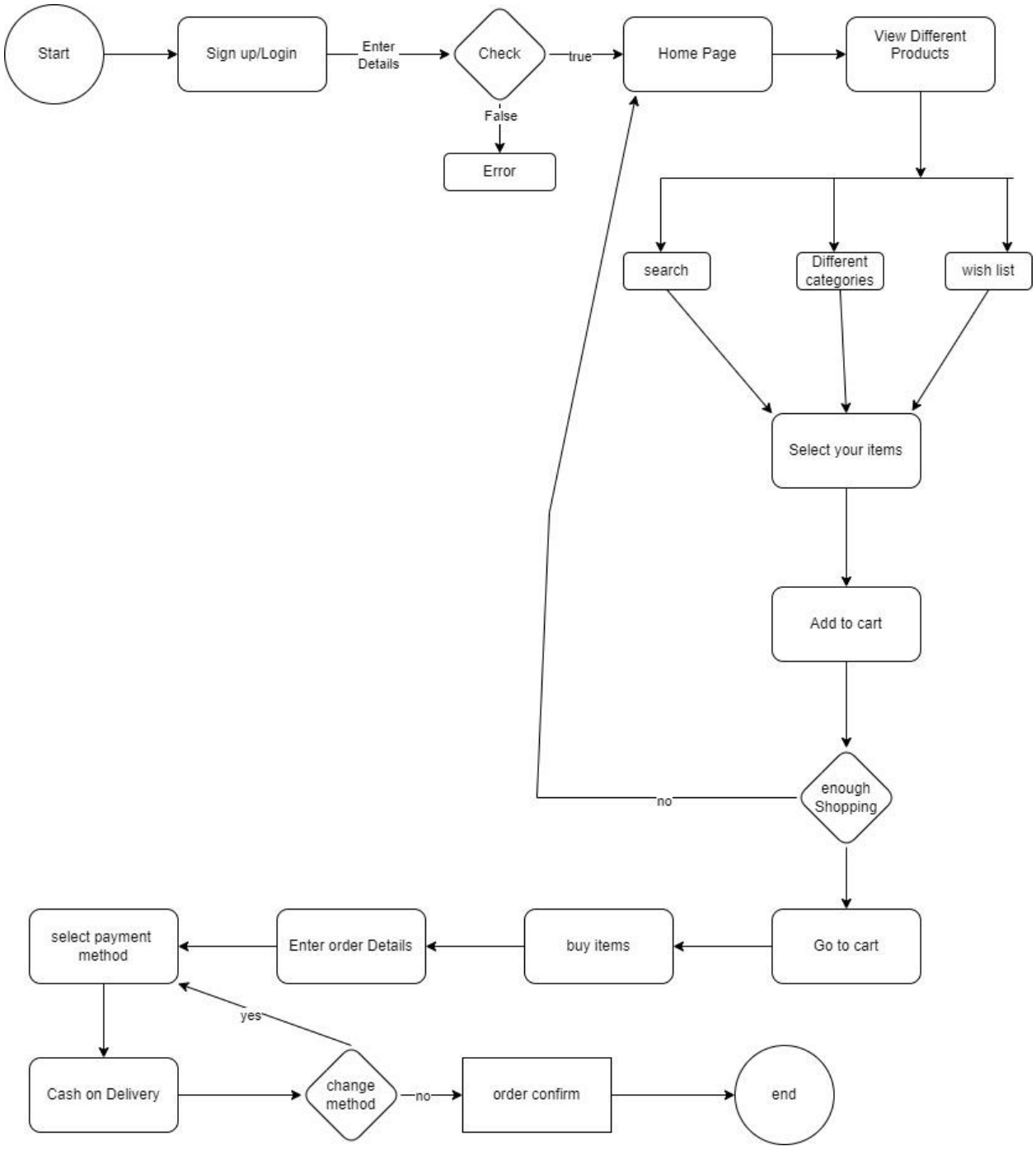
Pros:

1. **Is a very realistic approach to software development**
2. **Promotes teamwork and cross training.**
3. **Functionality can be developed rapidly and demonstrated.**
4. **Resource requirements are minimum.**
5. **Suitable for fixed or changing requirements**
6. **Delivers early partial working solutions.**
7. **Good model for environments that change steadily.**
8. **Easy to manage**

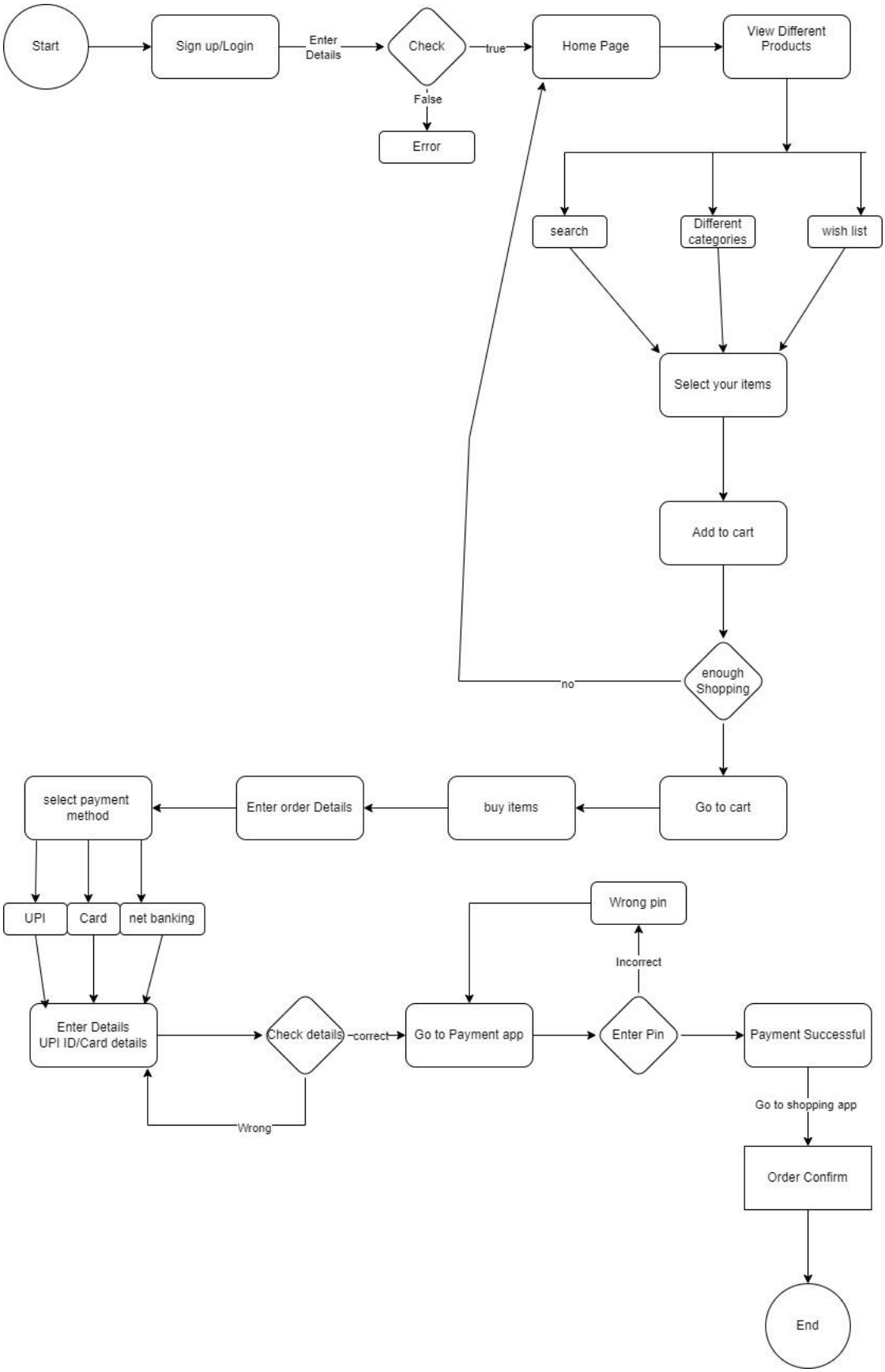
Cons:

1. **Not suitable for handling complex dependencies. More risk of sustainability, maintainability and extensibility.**
2. **An overall plan, an agile leader and agile PM practice is a must without which it will not work.**
3. **Strict delivery management dictates the scope, functionality to be delivered, and adjustments to meet the deadlines.**
4. **Depends heavily on customer interaction, so if customer is not clear, team can be driven in the wrong direction.**

Q.19 Draw usecase on Online Shopping product using COD.



Q.20 Draw usecase on Online shopping product using payment getway.


Start
Sign up/Login
Enter Details
Check
true
False
Error
Home Page
View Different Products
search
Different categories
wish list
Select your items
Add to cart
enough Shopping
no
Go to cart
buy items
Enter order Details
select payment method
UPI
Card
net banking
Enter Details UPI ID/Card details
Check details
correct
Wrong
Go to Payment app
Enter Pin
Incorrect
Wrong pin
Payment Successful
Go to shopping app
Order Confirm
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