

Q.1. What is SDLC?**Answer :**

SDLC stands for software development life cycle.

SDLC is a structure.

That use for development of software product.

That define process for planning, implementation, testing, documentation, ongoing maintenance and support.

Q.2. What is software testing?**Answer :**

software testing is a process, that use for indentifying correctness, completeness and quality of the developed computer software.

Software testing is a process of verification and validation.

Q.3. What is Agile Methodology?**Answer :**

Agile model believes that every project needs to be handled differently.

Existing methods need to be tailored best suit the project requirements.

Tasks are divided to small time frames,

After each iteration working software build is delivered.

Each build is incremental in terms of features.

The final build holds all the features required by the customer.

Agile process had started early in the software development,

And Started becoming popular with time due to its flexibility and adaptability.

Q.4. What is SRS?**Answer :**

SRS stands for software requirement specification.

It includes set of use cases

That describes all of the interaction that the users will have with the software.

Types of Requirements:**1. Customer Requirements :**

Gathering or collecting requirements from the customer.

Interaction with customer must be needed.

Requirements must be clear, well defined and understood.

2. Functional Requirements:

Based on customer Requirements design use case or other diagrams that describes the flow of the system.

Use case are also known as functional requirements.

Use case specify the sequential action of the software product.

3. Non-functional requirements :

Based on the customer requirements

We have to define some non functional requirements like as :

Performance

Scalability

Reliability

Security

Q.5. What is OOPS?

Answer :

OOP stands for Object Oriented Programming.

It is type of programming language which helps the programmer to define not only types of data but also types of function.

Example :

Java, c++, visual basic.NET

Identifying objects and assigning responsibility to these objects.

Objects communicate to other objects by sending messages.

Q.6. Write Basic concepts of oops?

Answer :

Object : any entity that has own state and behaviour is also called as object.

Ex. A pen, tree, a universe.

Class : class is a collection of objects.

Ex. Human body, car.

Encapsulation : containing information in an object, exposing only selected information.

Ex. Capsule

Polymorphism : we have many ways to do same work/ same thing.

Two methods include:

1. Overriding method

2. Overloading method

Inheritance : one object inherits all the properties and behaviour of parent class.

Ex. Father-son.

Abstract : hide internal details and showing functionality

Ex . Login page

Q.7. What is object?

Answer :

Any entity which has own state and behaviour.

Object = data + method

Example:

paper, pen, flower, universe etc

Q.8. What is Class?

Answer :

Class is a collection of objects.

Example :

human body

Q.9. What is encapsulation?

Answer :

Wrapping up of data or binding of data

Example :

capsule

Q.10. What is inheritance?

Answer :

When one object acquires all the properties and behaviour of parent class

Example:

father - son

Q.11. What is polymorphism?

Answer :

Many ways to performing anything

Example :

1. Overloading method

2. Overriding method

Q.12. Write SDLC phases with basic introduction.

Answer :

There are 6 phases of the SDLC listed below:

1. **Requirement collection/gathering**: collecting requirements from customer.

2. **Analysis** : model and specify requirements.

3. **Design** : model and specify solution.

4. **Implementation** : construct the solution into software product.

5. **Testing** : validate the solution against customer requirements

6. **Maintenance** : make it more adaptive and add new additional features

1. Requirement collection/gathering :

This is the most important phase of the SDLC.
Communication with customer and gathering all requirements.
Customer involvement is more important.
Understood all the requirements from the customer and clear defined.
If the requirements are not clear, the system will be go in wrong direction.

2. Analysis :

Analysis is the second phase of the SDLC
Based on customer requirements analysis team must be analysis on requirements and identified possible risk and resolution for risk.
Analysis on requirements and take decision how much time will take it.
How many resources we need it for system product.
Which type of model suitable for this system.

3. Design :

Design is the third phase of SDLC.
Based on requirements and analysis design the system.
Actually how the system is work define in designing.
Design sequential flow of the system.

4. Implementation :

Implementation is 4th phase of SDLC.
In this phase actually construct the system.
Based on the design phase develop the system.

5. Testing :

Testing is 5th phase of SDLC.
After completion of implementation this phase execute.
Actually testing of the software which developed in implementation phase.
Conduct different kind of testing.

6. Maintenance :

Maintenance is the last phase of the SDLC.
User easily use and access the system so that create guideline or help menu.

There are 3 types of maintenance:

1. Corrective maintenance:

Finding and correcting defects.

2. Adaptive maintenance:

Transfer system on to the new platform for more adaptive.

3. Perfective maintenance :

Adding additional features or functionalities.

Q.13. Write phases of spiral model.

Answer :

1. Initial Requirements :

Communication with customer and collection of requirements.
Determination of objectives, alternatives and constraints

2. Risk Analysis :

Analysis of alternative and identification of risk / Resolution of risk.
Here take it decision go, no go to next level.

3. Engineering :

In this phase development of the product next level.

4. Customer Evaluation :

Deliver working product to the customer and take feedback from customer.
If customer want to change functionalities or other function they will ask.

Q.14. Explain phases of the waterfall model.

Answer :

There are list given Phases of waterfall model :

1. **Requirements** : Gathering/ collection requirements from customer.
Requirements are clear, fixed and well documented.

2. **Analysis** : based on requirements analysis team must have analysis of risk, required resources, budget etc..

3. **Design** : based on requirements and analysis design team design of system.
Design various type of diagram.
Specification sequential action

4. **Implementation** : based on design development team develop the actual system / product.
Use technology and language for develop software.

5. **Testing** : After completion of development testing should be conduct.
Testing team conduct various type of testing.
Tester validate the requirements.

6. **Maintenance** :
Create user manual or help menu for easily use system.
ongoing support for system.

Q.15. Explain working methodology of agile model and also write pros and cons.

Answer :

Agile model is a combination of iterative and incremental process model.
Suitable for fixed and changing requirements.
Agile method break the product in small incremental builds.
These builds are provided in iterations.
Each iteration have one to three weeks time.
At the end of iteration working product is displayed to the customer and important stakeholder.

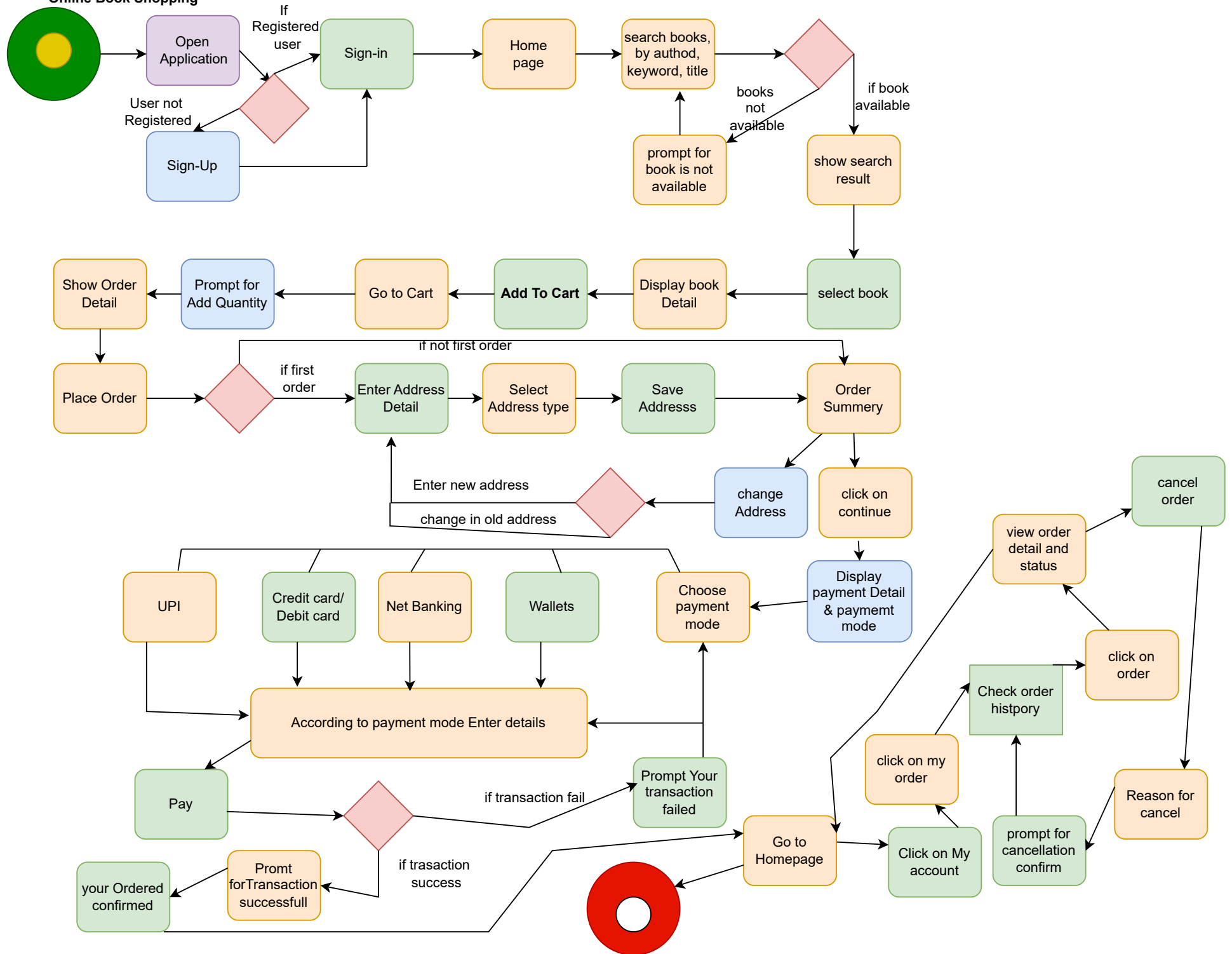
Pros :

Is a very realistic approach to software development.
Functionality can be developed rapidly and demonstrated.
Minimum resource requirements.
Suitable for fixed and changing requirements.
Delivers early partial working solution.

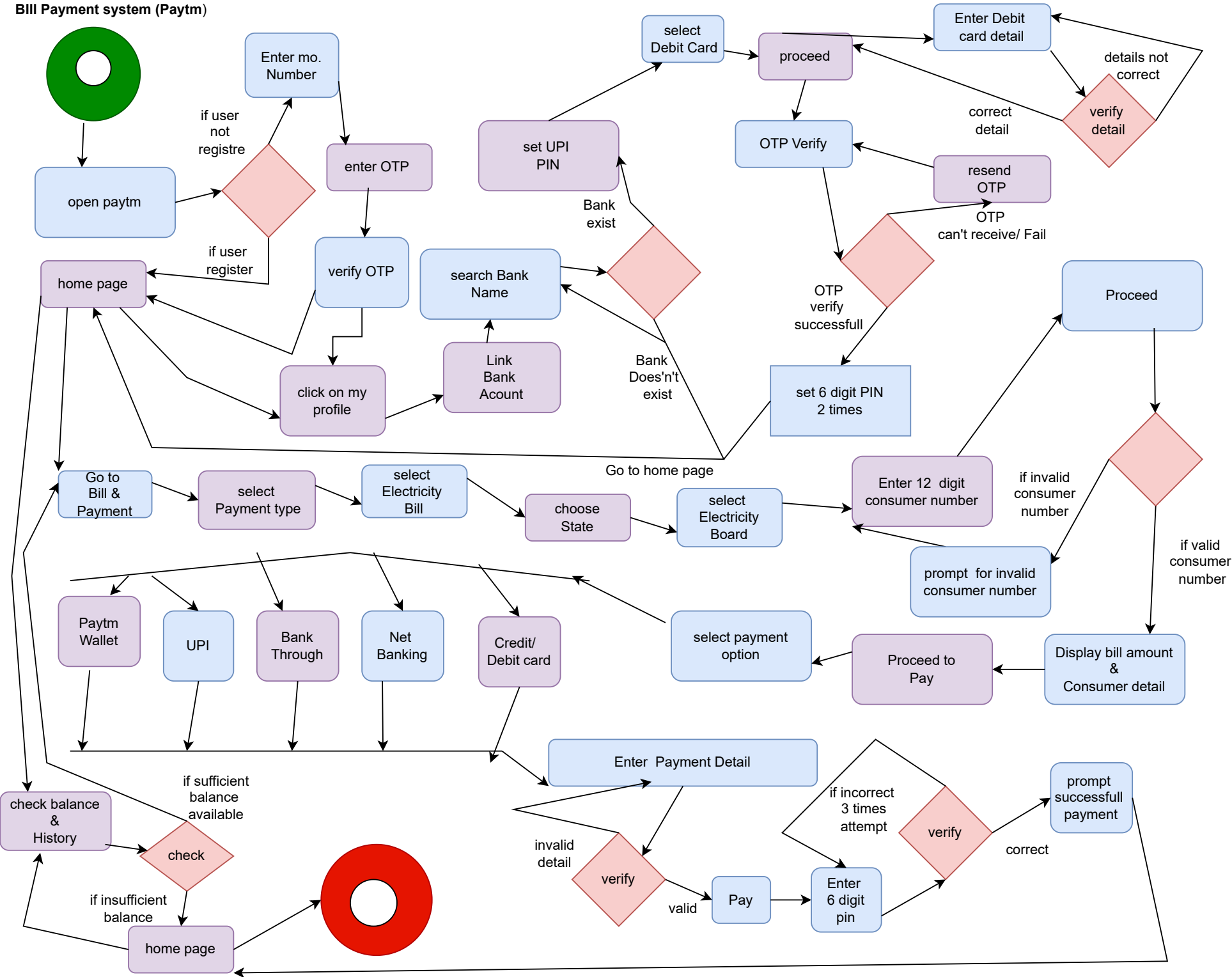
Cons :

Depends heavily on customer interaction.
So if customer is not clear, team can be driven in the wrong direction.
Not suitable for handling complex dependencies.
Minimum documentation generated.
Transfer of technology to new team members may be quite challenging due to lack of documentation.

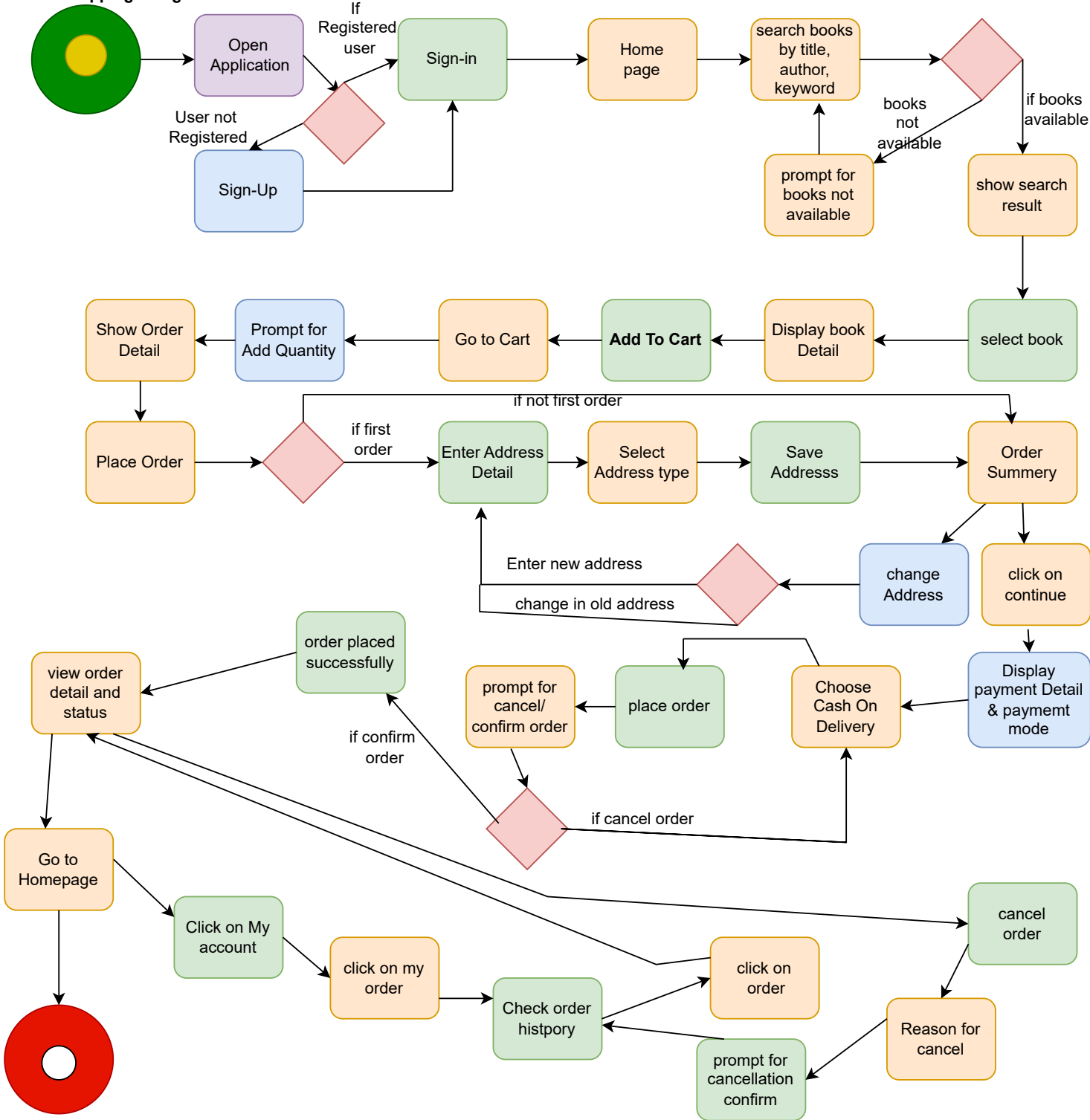
Online Book Shopping



Bill Payment system (Paytm)



online shopping using Cod



online shopping using payment gateway

