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Course Name: - Software testing (19th May ST 8:30AM Batch)

❖ Subject: - Module 1 Assignment

Que. 1 - What is SDLC?

Ans. SDLC means Software Development Life Cycle.

Definition: - SDLC is structure imposed on the development of the software products that defines the process for planning, implementation, testing, deployment, documents, ongoing maintenance and support.

Que. 2 - What is Agile Methodology?

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

Que. 3 - What is SRS?

Ans. SRS means Software Requirement Specification

Definition: - Software requirement specification is that to describe complete system of the behavior of the system to be developed.

Que. 4 - What is OOPS?

Ans. OOPS is an Object Oriented Programming System.

Que. 5 - Write basic concepts of oops.

Ans. There are basic six basic concepts of oops.

1) Class; 2) Object; 3) Encapsulation; 4) Inheritance; 5) Polymorphism; 6) Abstraction.

Que. 6 - What is Object?

Ans. Object is an instances of the class. To create memory of that the class to access all the properties and the class except private.

Que. 7 - What is class?

Ans. Class is a combination of data member (Variable) and member function (Process, Method) of its behavior.

Que. 8 - What is Encapsulation?

Ans. Encapsulation is wrapping up data into single unit. i. e. Data hiding.

Que. 9 - What is Inheritance?

Ans. Inheritance is the property of parent class derived into child class.

Que. 10 - What is Polymorphism?

Ans. Polymorphism is ability to take one name having different forms.

Que. 11 - What is RDBMS?

Ans. RDBMS means Relational Database Management System.

Definition: - RDBMS is a type of DBMS which is store data in structure format using rows and columns and making easy to locate and access data in relation another piece of data in the database.

Que. 12 – What is SQL?

Ans. SQL means Structure Query Language.

Definition: - SQL is domain specific language which is used in programming and designed managing data held in RDBMS (Relational Database Management System).

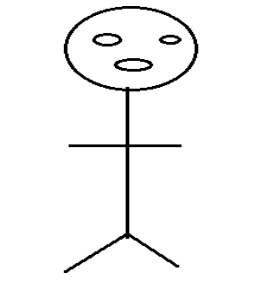
Que. 13 – Write SQL commands.

Ans. There are four types of SQL commands.

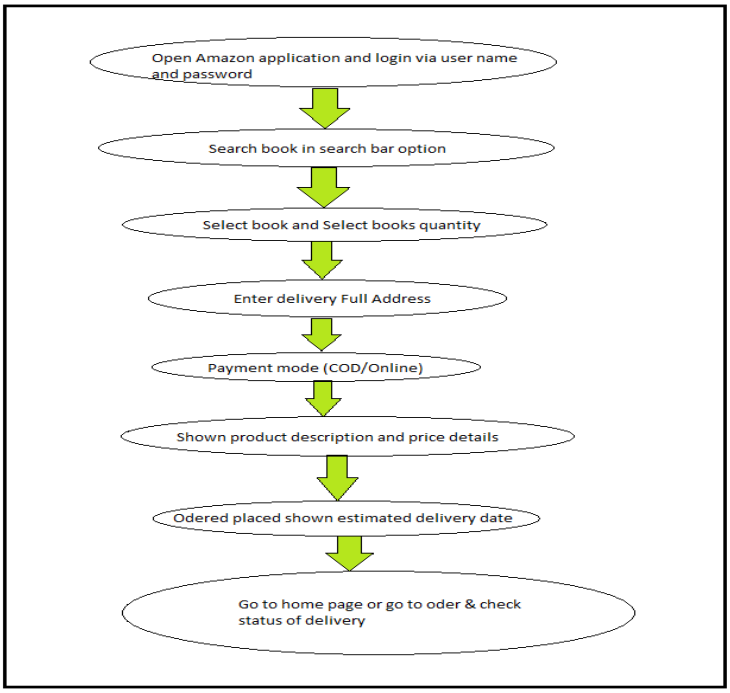
1. Data Definition Language (DDL)
2. Data Manipulation Language (DML)
3. Data Query Language (DQL)
4. Data/Transactional Control Language (DCL/TCL).

Que. 14 – Draw Use case on online book shopping.

Ans. Below is the use case for online book shopping via amazon application.

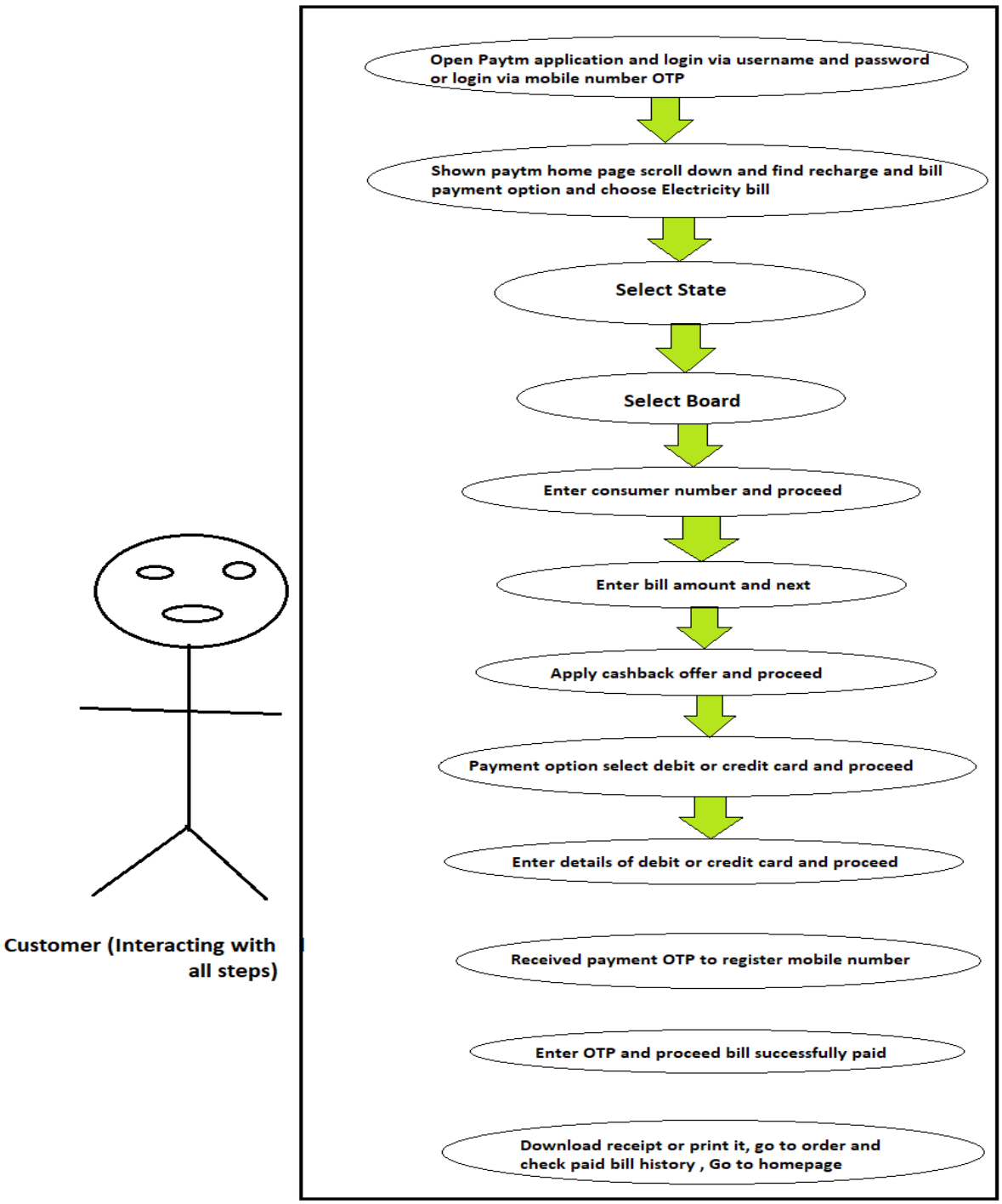


Customer (Interaction with all step)



Que. 15 – Draw Use case on online bill payment system (Paytm).

Ans. Below is the use case of online bill payment system through Paytm.



Que. 16 – Write SDLC phases with basic introduction.

Ans. There are mainly Six types of SDLC phases. Following described all phases with its basic introduction..

1. Requirements collection/Gathering: - Establish the customer needs.
    - There are three types of problem can arise in requirements collection.
        1) Lack of clarity- Precise and easy to read
        2) Requirement confusion- Functional and non-functional
        3) Requirements Amalgamation- Several different requirements may be expressed together.
2. Analysis: - Model and specify the requirements
3. Design: - Model and specify the solution
4. Implementation: - Construct a solution in the software
5. Testing: - Validate the software against the customer requirements
6. Maintenance: - Repair defects and adapt the solution to new requirements.
    - Maintenance is the changing the system after it has been deployed.
    - There are three types of maintenance.
        1) Corrective Maintenance - Identifying and repair the defect
        2) Adaptive Maintenance – Adapting existing solution to the new platform
        3) Perfective Maintenance – Implementing the new requirements.

Que. 17 – Explain phases of the waterfall model.

Ans. Waterfall model is also known as Classical software cycle.

Definition: - Waterfall model it to developed software as a step by step between various development phases.

- Waterfall model is unrealistic for many reason.

- Requirements may be “Frozen”.
- Requirements is “Validate too late”.

❖ There are mainly six phases of the waterfall model.

1. Requirements collection: - Establish the customer needs
2. Analysis: - Model and specify the requirements
3. Design: - Model and specify the solution
4. Implementation: - Construct a solution in software
5. Testing: - Validate the solution against the requirements
6. Maintenance: - Repairs the defect and adapt the solution to the new requirements.

Que. 18 – Write phases of spiral model.

Ans. In Bohem’s Spiral Model main four types of phases.

1. Planning
2. Risk Analysis
3. Engineering
4. Customer Evaluation.

Que. 19 – Write Agile manifesto principles.

Ans. There are four types of agile manifesto principles.

1. Individual and interaction
2. Working software
3. Customer collaboration
4. Responding to change.

Que. 20 – What is join?

Ans. A Join clause is used to combine rows from two or more tables, based on related columns between them.

Que. 21 – Write types of Join.

Ans. There are four types of Joins.

1. Inner Join
2. Left Join
3. Right Join
4. Full Join

Que. 22 – Explain working methodology of Agile model and also write pros and cons.

Ans. Definition: - Agile SDLC model is combination of iterative and incremental process model with focus on process of adaptability and customer satisfaction by rapid delivery of working software product.

- An agile model breaks the product into small incremental builds.

Agile manifesto Principle: - 1. Individual and interaction, 2. Working software, 3. Customer collaboration, 4. Responding to change

Pros: -

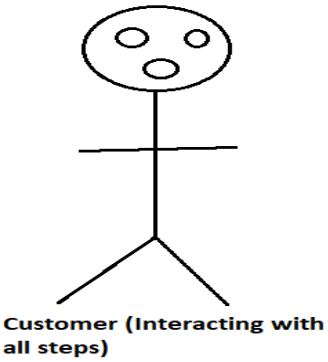
- An agile is a very realistic approach in software industry.
- Promotes team works and cross training.
- Functionality can be developed early and demonstrated.
- Resources requirements are minimum.
- No planning required.
- Easy to manage.
- Gives flexibility to developers

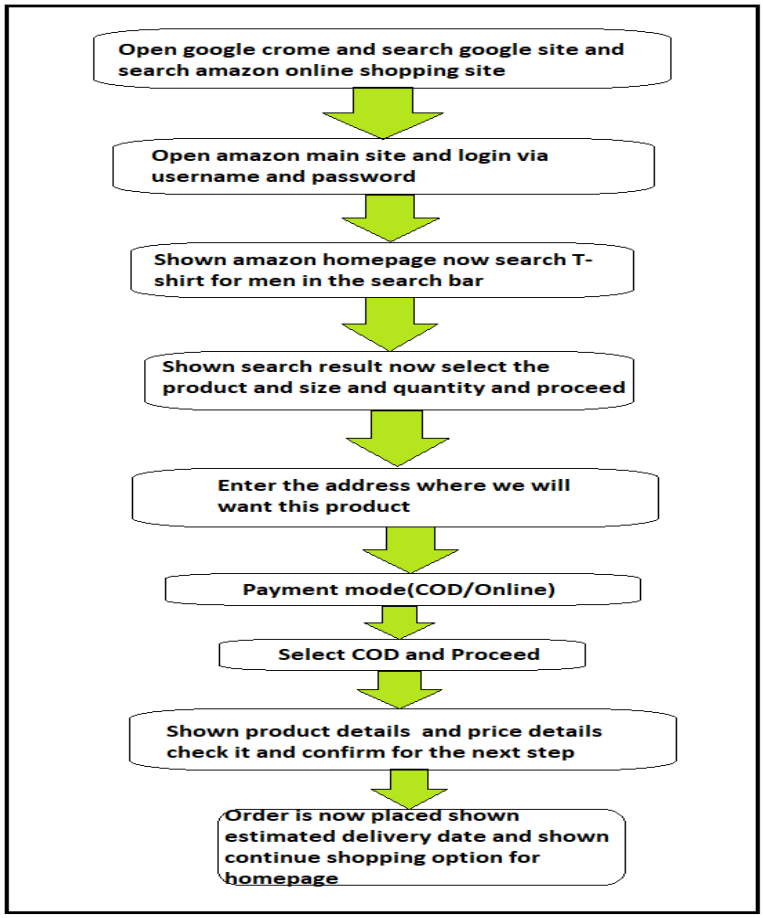
Cons: -

- Not suitable for handling complex dependencies.
- Risk of maintainability, sustainability, extensibility.
- An overall plan can agile leader and agile PM practice must know without it will not possible.
- Heavily depends on customer dependency.
- Highly depends on the individual dependency.

Que. 23 – Draw use case on online shopping product using COD.

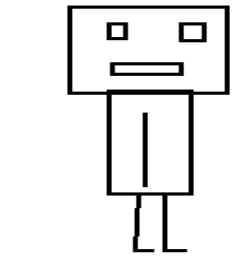
Ans. Below is the use case of online shopping product using COD.



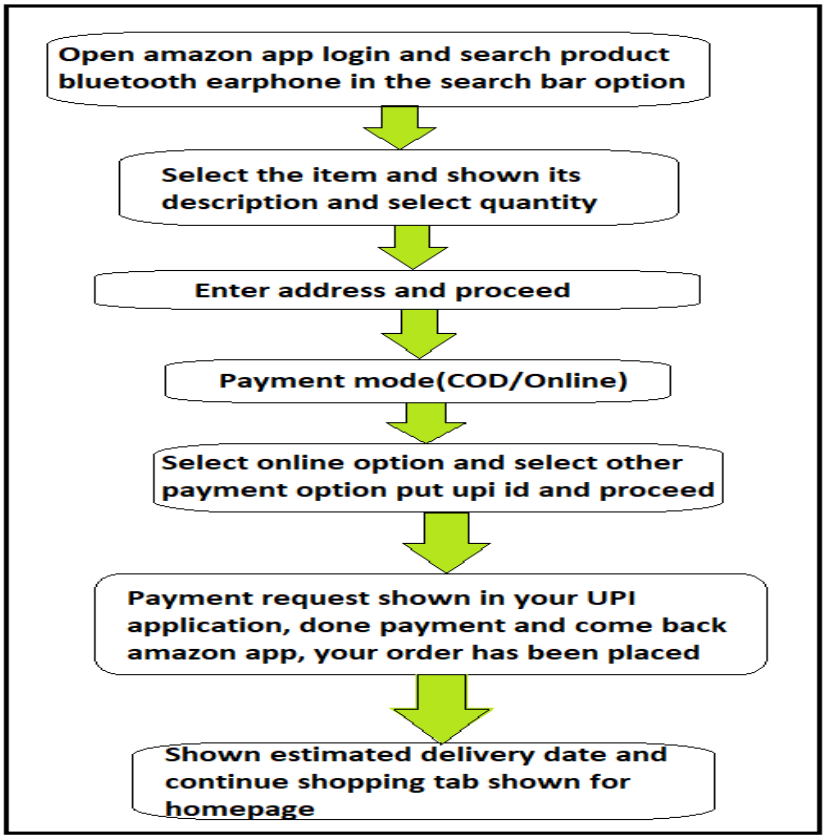


Que. 24 – Draw use case on online shopping product using payment gateway.

Ans. Below is the use case of online shopping product using payment gateway.



Customer(Interacting with all steps)



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