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Q-1 What is SDLC

Ans :- A **S**oftware **D**evelopment **L**ife **C**ycle 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.

SDLC is a structure imposed on the development of a software product that defines the process for planning, implementation, testing, documentation, deployment, and ongoing maintenance and support. There are a number of different development models.

Q-2 What is software testing?

Ans: - Software testing is a method to check whether the actual software product matches expected requirement and to ensure that software product is defect free.

Software testing is the process of evaluating and verifying that a software product or application does what it is supposed to do. The benefits of testing include preventing bugs, reducing development costs and improving performance.

Q-3 What is agile methodology?

Ans: - 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.

Q-4 What is SRS

Ans: - A software requirements specification (SRS) is a complete description of the behaviour of the system to be developed.

It also describes the functionality the product needs to fulfil the needs of all stakeholders (business, users).

Q-5 What is oops

Ans: - Object-Oriented Programming or OOPs refers to languages that use objects in programming.

Object-oriented programming aims to implement real-world entities like inheritance, hiding, polymorphism, etc in programming.

Q-6 Write Basic Concepts of oops

Ans - 1) Object

2) Class

3) Encapsulation

4) Inheritance

5)Polymorphism

Overriding

Overloading

6)Abstraction

Q-7 What is object

Ans: - data and function that operate on data are bundled as a unit called as object.

Object = Data + Function(method)

Q-8 What is class

Ans: - data and function that operate on data are bundled as a unit called as object.

Q-9 What is encapsulation

Ans: - Encapsulation is one of the fundamental concepts in object-oriented programming (OOP).

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

Ans: - Inheritance means that one class inherits the characteristics of another class.

Inheritance is one of the most important features of Object-Oriented Programming.

Q-11 What is polymorphism

Ans: - poly refers too many. That is a single function or an operator functioning in many ways different upon the usage is called polymorphism.

Or

One task is a perform in different ways.

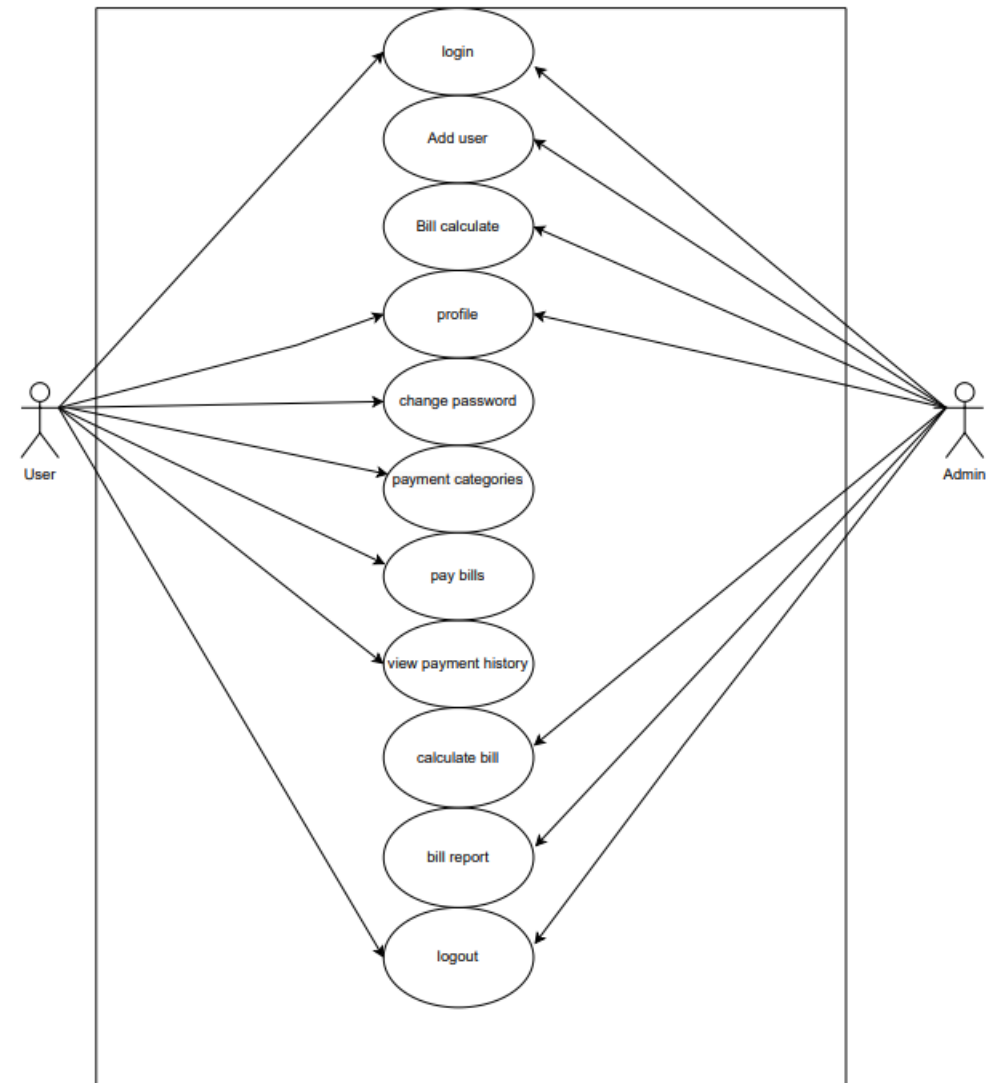
Q-12 Draw Use case on Online book shopping

Ans: -

Q-13 Draw Use case on online bill payment system (Paytm)

Ans: -

Use
case on online bill payment system (Paytm)



Q-14 Write SDLC phases with basic introduction

Ans: -

1)**Requirement gathering**

Requirement gathering is the most important and necessary stage in SDLC.

During this phase, all the relevant information is collected from the customer to develop a product as per their expectation. Any ambiguities must be resolved in this phase only.

2)**Analysis**

The analysis phase defines the requirements of the system, independent of how

these requirements will be accomplished.

3)**Designing** software design documents are prepared as per the requirement specification document. This helps define overall system architecture.

4)**Implementation**

implementation phase, the team builds the components either from scratch or by composition.

In this phase, developers start build the entire system by writing code using the chosen programming language.

5)**Testing**

Once the software is complete, and it is deployed in the testing environment. The testing team starts testing the functionality of the entire system. This is done to verify that the entire application works according to the customer requirement.

6)**Maintenance**

Once when the client starts using the developed systems, then the real issues come up and requirements to be solved from time to time.

This procedure where the care is taken for the developed product is known as maintenance.

Q-15 Explain Phases of the waterfall model

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Q-16 Write phases of spiral model

Ans: - 1)Planning

2)Risk Analysis

3)Review & Evaluate

4)Develop & Test

Q-17 Write agile manifesto principles

Ans: - 1) Customer Satisfaction

2)Welcome change

3)Deliver the Working Software

4)Collaboration

5)Motivation

6)Face-to-face Conversation

7)Measure the Progress as per the Working software

8)Maintain Constant pace

9)Monitoring

10)Simplicity

11)Self-organized Teams

12)Review the work regularly

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

Ans: - The agile methodology is a way to manage a project by breaking it up into several phases

pros

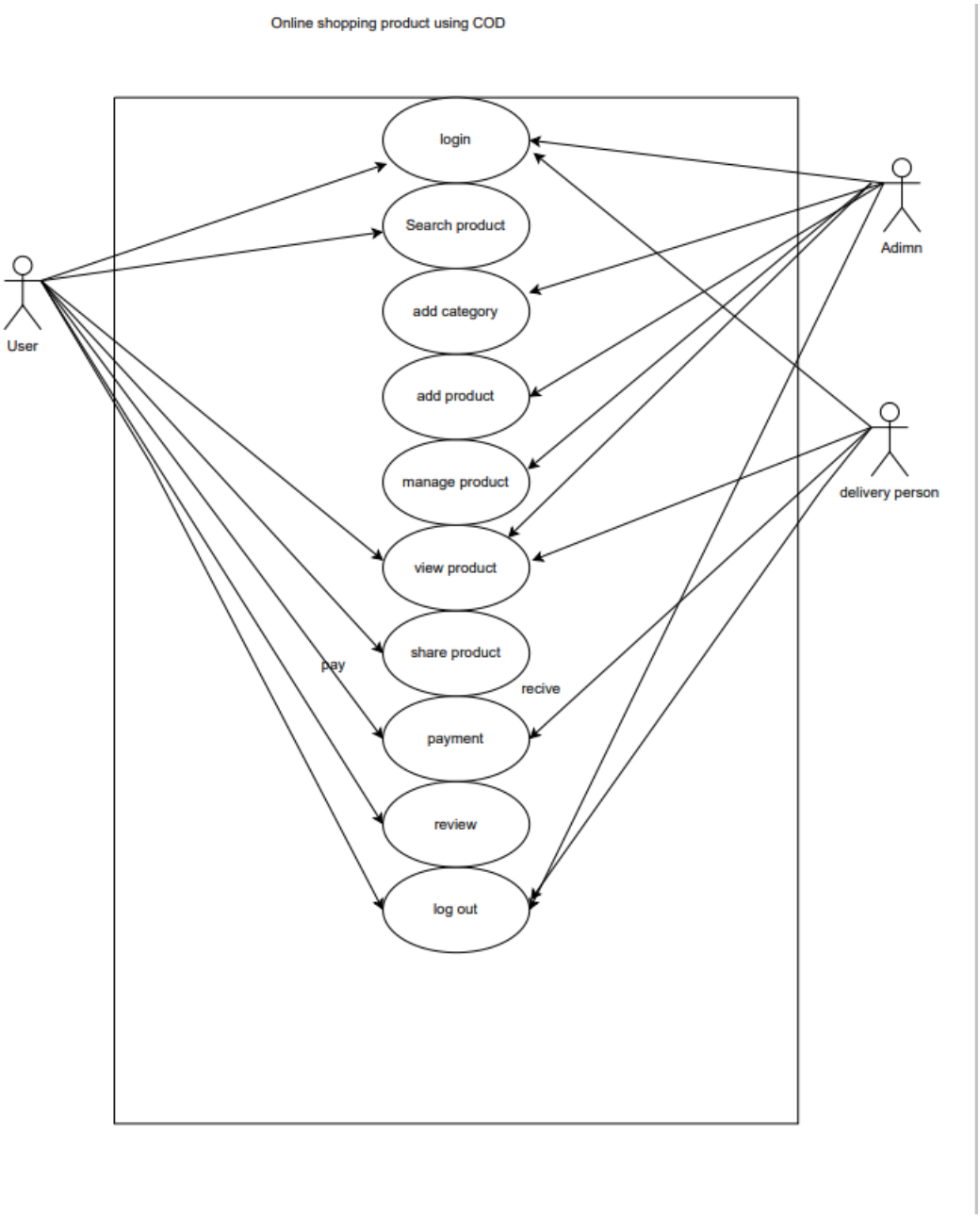
- Is a very realistic approach to software development
- Promotes teamwork and cross training.
- Functionality can be developed rapidly and demonstrated.
- Resource requirements are minimum.
- Suitable for fixed or changing requirements
- Delivers early partial working solutions.
- Good model for environments that change steadily.
- Minimal rules, documentation easily employed.
- Enables concurrent development and delivery within an overall planned context.
- Little or no planning required
- Easy to manage
- Gives flexibility to developers

Cons

- Not suitable for handling complex dependencies.
- More risk of sustainability, maintainability and extensibility.
- An overall plan, an agile leader and agile PM practice is a must without which it will not work.
- Strict delivery management dictates the scope, functionality to be delivered, and adjustments to meet the deadlines.
- Depends heavily on customer interaction, so if customer is not clear, team can be driven in the wrong direction
- There is very high individual dependency, since there is minimum documentation generated.
- Transfer of technology to new team members may be quite challenging due to lack of

Q-19 Draw use case on Online shopping product using COD.

Ans: -



Q-20 Draw use case on Online shopping product using payment gateway.

Ans: -

Online shopping product using payment gateway.