

□ What is SDLC

sdlc is a structure imposed on the development of a software product that defines the process for planning implementation,testing documentation,depoyment and ongoing maintenance and supports.

□ What is software testing?

software testing is a process used to identify the correctness,completness and quality of developed computer software.

□ What is a [1]

□ What is SRS

a software requirement specification is a complete description of the behavior of the system to be developed.

□ What is oops

object orianted programming is a computer programming model that organizes software design around data,or objects,rather than function and logic.

□ Write Basic Concepts of oops

- 1.object
- 2.class
- 3.encapsulation
- 4.inheritance
- 5.polymorphism
- 6.abstraction

□ What is object

object are the key of understanding object technology.

in oop is an abstract datatype created by a developer.it can include multiple properties and methods and may even contain other objects.in most programming langauges, object are defined as classes.

□ What is class

a class is a blueprint the defines the varible and the methods commom to all objects of a certain kind.

□ What is encapsulation

Encapsulation is a way to restrict the direct access to some components of an object, so users cannot access state values for all of the variables of a particular object. Encapsulation can be used to hide both data members and data functions or methods associated with an instantiated class or object.

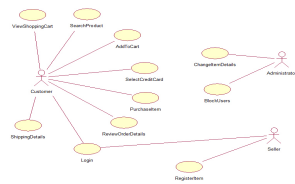
□ What is inheritance

Inheritance is one of the core concepts of object-oriented programming (OOP) languages. It is a mechanism where you can to derive a class from another class for a hierarchy of classes that share a set of attributes and methods

□ What is polymorphism

Polymorphism is a feature of object-oriented programming languages that allows a specific routine to use variables of different types at different times. It is the ability of a programming language to present the same interface for several different underlying data types and different objects to respond in a unique way to the same

□ Draw Usecase on Online book shopping



□ Draw Usecase on online bill payment system (paytm)

□ Write SDLC phases with basic introduction

SDLC stands for Software Development Life Cycle. It is a process that gives a complete idea about developing, designing, and maintaining a software project by ensuring that all the functionalities along with user requirements, objectives, and end goals are addressed.

- 1.requirement
- 2.analysis
- 3.design
- 4.implementation
- 5.testing
- 6.maintanance

□ What is agile methodology?

The Agile methodology is a way to manage a project by breaking it up into several phases. It involves constant collaboration with stakeholders and continuous improvement at every stage. Once the work begins, teams cycle through a process of planning, executing, and evaluating.

☐ Explain Phases of the waterfall model!

1.requirements:During the requirements stage, developers write down all the possible requirements of a system in a requirements document. The document defines what the system should do, but not necessarily how it will work. Developers will base all the software's future development on the requirements document

2.analysis:In the next stage, analysis, developers use the requirements document to examine and flesh out the logical or theoretical design of the system without accounting for its hardware or software technologie

3.design:The project will then move onto the design stage, where developers alter the logical design of the system to make sure it works with the system's hardware and software technologies.

4.implementation:Once developers finalize the system's physical design, the project enters the coding stage. In this stage, developers will reference the system's requirements and logical and physical specifications to write its actual code.

5.testing:After coding the system, quality analysts, beta testers, and other testers will use the system and report any bugs they find. Developers will patch the most pressing issues. This is known as the testing stage.

6.maintenance:Finally, the project enters the deployment stage, where developers release the system to their market, support their customers, maintain the system, and upgrade it to meet their customers' evolving needs.

Write phases of spiral model

Objectives determination and identify alternative solutions

Identify and resolve Risks:

Develop next version of the Product

Review and plan for the next Phase:

☐ Write agile manifesto principles

1.1

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

2.Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

3.

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

4.

Business people and developers must work together daily throughout the project.

5.5

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

6.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

7.

Working software is the primary measure of progress.

8.Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

9.Continuous attention to technical excellence and good design enhances agility.

10.Simplicity—the art of maximizing the amount of work not done—is essential.

11.

The best architectures, requirements, and designs emerge from self-organizing teams.

12.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

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

The Agile methodology is a way to manage a project by breaking it up into several phases. It involves constant collaboration with stakeholders and continuous improvement at every stage. Once the work begins, teams cycle through a process of planning, executing, and evaluating.

UDACITY	
PROS	CONS
✓ Product goals can be defined with stakeholders	✓ Requires considerable expertise and discipline
✓ Strong collaboration	✓ Planning may be weak
✓ Customer feedback is encouraged	✓ Timelines should be clear to keep things on track
✓ Adaptive; changes can be accommodated	✓ Requires dedicated resources
✓ Rapid, continuously improving output	✓ Final product may be entirely different from expectations

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