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(1) What is software? What is software engineering?

What is software?

Software is a set of instruction, data or programs used to operate computers and execute specific tasks.

What is Software engineering?

Software Engineering is the process of designing, testing, and maintaining software. It is a systematic and disciplined approach to software development that aims to create – quality, reliable, and maintainable software.

(2) Explain types of software

1. Application software

2. System software

3. Utility software

1. application software

Application software consists of programs designed to perform specific tasks for end-user. It enables users to complete activities like word processing, web browsing, gaming, and more. Application software is user-focused and tailored to meet diverse needs.

2. system software

System software is a fundamental type of software that acts as an intermediary between computer hardware and application software. It manages computer resources, provides a user interface, facilitates

communication between hardware and software, and ensures the proper functioning of the computer system.

3. utility software

Utility software refers to a type of system software that is designed to help analyes, configure, optimize and maintain a computer. It is used to support the computer infrastructure, distinguishing it from application software which is aimed at directly performing tasks that benefit ordinary users.

(3) what is SDLC? Explain each phase of SDLC

The software development lifecycle (SDLC) is the cost-efficient process that development teams use to design and build high-quality software. The goal of SDLC is to minimize project risks through forward planning so that software meets customer expectations during production and beyond. This methodology outlines a series of steps that divide the software development process into tasks you can assign, complete, and measure.

1. Planning.

2. Analysis.

3. Designing.

4. Development.

5. Testing.

6. Maintenances.

1. Planning.

The first phase of the SDLC is the project planning stage where you are gathering business requirements from your client or stakeholder. This phase is when you evaluate the feasibility of creating the creating the product, revenue potential, the cost of production, the needs of the end users, eat.

2. Analysis.

The software development lifecycle is the most-effective and time-efficient process that development teams use to design and build high-software. The goal of SDLC is to minimize project risks through forward planning so that software meets customer expectation during production and beyond.

3. Designing

The software development lifecycle is the cost-effective and time-efficient process that development teams use to design and build high-quality software the goal of SDLC is to minimize project risks through forward planning so that software meets customer expectation during production.

4. Development

The actual development phase is where the development team member divide the project into software modules and turn the software requirement into code that makes the product.

5. Testing

Before getting the software product outdoor the production environment, it’ s important to have your quality assurance team perform validation testing to make sure it is functioning properly and does what it’s meant to do. the testing process can also help hash out any major user experience issues and security issues.

6. Maintenance

The maintenance phase is the final stage of the SDLC if you ‘re following the waterfall structure of the software development process. However, the industry is moving towards a more agile software development approach where maintenance is only a stage for further improvement.

(4) What is DFD? Create a DFD diagram on Flipkart

What is DFD?

Data flow diagram (DFD) is a diagram being used frequently in software design. It visually represents the flow of data throughout processes in a given system. DFD shows the kind of information that will be input to and output from processes as well as where the data well be shored.

Each function is considered as a processing station that consumes some input data and produces some output data. The system is represented in terms of the input data to the system, various processing carried out on these data, and the output data generated by the system.

Create a DFD Diagram on Flipkart?

Flipkart DFD

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Customer Registration

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Product search Order Placement

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Payment process Payment Gateway

(5) what is Flow chart? Create a flowchart to make addition of two numbers

What is Flow chart?

The flowchart symbols are used to show to show the steps, order and choices in a process. Together, they from a universal language that makes process analysis easy. I’m sure you’ve seen flowcharts before with various shapes, lines and arrows to depict stages within a bnprocess like where it begins or ends.

start

kk

Name 1,2,3

Jjj m

**G**

Name is 2

big

Name 1

Name 2

2



Name is 1 big

**ZZXZXX**

c

End

(6) what is Use case Diagram? Create a use-case on bill payment on paytm.

A Use Case Diagram is a type of Unified Modeling Language (UML) diagram that represent the interaction between actor and a system under consideration to accomplish specific goals. It provides a high-level view of the system’s functionality by illustrating the various ways user can interact with it.

Create a use-case on bill payment on paytm?

Payment cervice use case diagram

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User ----🡪 registration

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Select bill type

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Bill Details

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Payment method

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Payment Gateway

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Payment process

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Payment confirmation