Module 1(Fundamentals)

Q.1. What is SDLC?

-> SDLC means Software Development Life Cycle. SDLC is a structure imposed on the development of a software product that defines the process of planning, implementation, testing, documentation, deployment and ongoing maintenance and support.

-> SDLC is essentially a series of steps or phases, that provide a model of the development and lifecycle management of an application or piece of software.

Q.2. What is Software testing?

-> Software Testing is a process used to identify the correctness, completeness and quality of developed computer software.

-> Testing is executing a system in order to identify any gaps, errors or missing requirements in contrary to the actual desire or requirements.

-> It can also be started as the process of Validating and Verifying that a software program or application or product:

- Meets the business and technical requirements that guided its design and development.

- Works as expected.

- Can be implemented with the same characteristic.

Q.3. What is Agile Methodology?

-> Agile method believes that every projects needs to be handled differently and the existing methods need to be tailored to best suit the project requirements. In this model the tasks are devided to time boxes to deliver specific features for a release.

-> Each build is incremental in terms of features; The final build holds all the features required by the customer.

-> Agile thought process had started early in the software

development and started becoming popular with time due to its flexibility adadaptibility.

Q.4. What is SRS?

-> SRS means Software Requirement Specifications.

-> SRS is complete description of the behavior of the system to be developed. It includes a set of use cases that describes all the interactions that the users will have with the software.

-> Use cases are also known as function requirements.

-> Requirements are categorized in several ways like

Functional, Non-Functional & Costumer Requirements.

Q.5. What is oops?

Q.6. Write Basic concepts of oops?

Q.7. What is Object?

Q.8. What is Class?

Q.9. What is Encapsulation?

Q.10. What is Enheritance?

Q.11. What is Polymorphism?

Q.12. Draw Usecase on Online book Shopping?

Q.13.Draw Usecase on online bill payment system? (Paytm)

Q.14. Write SDLC phases with Basic Introduction.

-> 6 Phases of SDLC :-

1.Requirement Gathering - It Establish customer need.

It must be in clear and Documented form. It must be precise and easy-to-read.

2. Analysis – This phase defines the Requirements of the system, Indipendent of how these requirements will be Accomplished.The Deliverable result at the end of this phase is a Requirement Document.

3. Design – In this phase, Design Architecture Document, Implementation Plan, Critical Priority Analysis, Performance Analysis, Test Plan. The Design Team can expand upon the information established in the requirement document. It must guide this Decesion Process.

4. Implementation – In this Phase, The team builds the components either from Scratch or by composition.

The Team should build exactly what has been requested,though there is still room for innovation and flexibility.

5. Testing – The Testing is the separate phase which is performed by the different team after the implementation completed. If the testing is done after the-fact or continuously, testing is usually based on a regression technique split into several major focuses, namely internal, unit, application and stress.

6. Maintenance – It is the process of enhancing or optimizing deployed software as well as fixing defects. This is the phase which comes after deployment of the software in to field.

Q.15. Explain Phases Of Waterfall Model.

->The Classical software lifecycles Models the software development as a “step-by-step” waterfall between the various development phases.

-> The Waterfall unrealistic for many reasons especially:

- Requirement must be frozen to early in the life cycle.

- Requirements are validated too late.

-> Phases of Waterfall models are Requirement Collection, Analysis, Design, Implementation, Testing and Maintenance.

Q.16. Write Phases Of Spiral model.

->1.Planning – Determenations of objectives, alternatives and constaints

-> 2.Risk Analysis – Analysis of alternatives and identifications/resolutions of risk.

-> 3.Engineering – Development of the next level product

-> 4.Customer Evalution – Assesment of the result of engineering.

Q.17. Write Agile Menifesto Principles.

Q.18. Explain Working Methodology of agile model And also write Pros and Cons.

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development and started becoming popular with time due to its flexibility adadaptibility.

-Pros : It promotes team work & cross training , can be developed rapidly, suitable for fixed requirements,

Minimum rules, documentation easily employed, little or no planning required, easy to manage and give flexibility to developers.

-Cons : more risks or suistainability, maintainability and extensibility, Not suitable for handling complex despendencies, depends heavily on customer interactions, so customer is not clear , team can be driven in the wrong direction, high individual dispendency, Transfer of technology to the new team member may be quite challenging due to lack of documentation.

Q.19. Draw Usecase on online Shopping product using COD.

Q.20. Draw Usecase on online Shopping product using

Payment Gateway.