Assignment_M1

Q-1 What is SDLC?

Ans. SDLC means Software Development Life Cyle is a process used by software industry to design, develop and test software s. The SDLC aims to produce a high Quality software that meets customer Expections.

Q-2 What is Software testing?

Ans. Software testing is a part of the software development process. Software testing is an activity to detect and Indetify the defects in the software. The Objective of testing is to release quality product to the client.

Q-3 What is a 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. SRS means Software Requirement Specification. Once they get the requirements they prepare some kind of document that is called SRS document.

Q-5 What is opps?

Ans. **Object-Oriented Programming System (OOPs)** is a programming concept that works on the principles of abstraction, encapsulation, inheritance, and polymorphism. It allows users to create objects they want and create methods to handle those objects.

Q-6 Write the basic concept of OOPs?

Ans. : **Object-Oriented Programming System (OOPs)** is a programming concept that works on the principles of abstraction, encapsulation, inheritance, and polymorphism.

Q-7 What is Object?

Ans. An object can be defined as an instance of a class, and there can be multiple instances of a class in a program. An Object is one of the Java OOPs concepts which contains both the data and the function, which operates on the data. For example – chair, bike, marker, pen, table, car, etc.

Q-8 What is Class?
Ans. The class is one of the Basic concepts of OOPs which is a group of similar entities. It is only a logical component and not the physical entity. Lets understand this one of the OOPs Concepts with example, if you had a class called “Expensive Cars” it could have objects like Mercedes, BMW, Toyota, etc. Its properties(data) can be price or speed of these cars.

Q-9 What is Encapsulation?
Ans. Encapsulation is one of the best Java OOPs concepts of wrapping the data and code. In this OOPs concept, the variables of a class are always hidden from other classes.for exm. It is wrapped with different medicine.

Q-10 What is Inheritance?
Ans. Inheritance is one of the Basic Concepts of OOPs in which one object acquires the properties and behaviors of the parent object. It’s creating a parent-child relationship between two classes.

Q-11 What is Polymorphism?
Ans. Polymorphism refers to one of the OOPs concepts in Java which is the ability of a variable, object or function to take on multiple forms.

Q-12 Write SDLC phases with basic Introduction?
Ans. **1.Requirement analysis** :- we have to collect the requirements from the customer.
2.Project planning:- All the planning about the project will be on meet before starting project like design,develop,test,cost,time etc.
3.Design:- The designers will design the software.
4.Development:- software developers will develop the software by writing different type of programs by using different type of language.
5.Testing:- Before delivering the software to the customer we have to test it so we have to conduct a different type of testing like function, nonfunctional,
performance, security as part of
testing phase.
6.Maintenance:- after that finally we deliver the software and maintenance will be start so
maintenance in the sense we deploy the software in customer

environment and they start using the software.

Q-13 Explain Phases of waterfall model?
Ans. 6 phases of Waterfall model as below.

- **Requirement Gathering and analysis** − All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.
- **System Design** − The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.
- **Implementation** − With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.
- **Integration and Testing** − All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
- **Deployment of system** − Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.
- **Maintenance** − There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

Q-14 Write phases of spiral model?
Ans. The spiral model has four phases: Planning, risk analysis, product development and next phase planning or Evaluation.

1. **Planning–** This phase includes requirement gathering and analysis. Based on the requirements, objectives are defined and different alternate solutions are proposed.
2. **Risk Analysis and resolving –** In this quadrant, all the proposed solutions are analyzed and any potential risk is identified, analyzed, and resolved.

3. **Develop and testing-** This phase includes the actual implementation of the different features. All the implemented features are then verified with thorough testing.
4. **Evalution and planning of the next phase –** In this phase, the software is evaluated by the customer. It also includes risk identification and monitoring like cost overrun or schedule slippage and after that planning of the next phase is started.

Q-15 What is Agile Manifesto principles?
Ans. 1.Individual and team interactions over processes and tools
2.Working software over comprehensive documentation
3.Customer collaboration over contract negotiation
4.Responding to change over following a plan
Q-16 Explain working methodology of agile and Also write pros ans cons of agile?
Ans.Agile working 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.
Advantages of Agile Methodology :
1. In Agile methodology the delivery of software is unremitting.
2. The customers are satisfied because after every Sprint working feature of the software is delivered to them.
3. Customers can have a look of the working feature which fulfilled their expectations.
4. If the customers has any feedback or any change in the feature then it can be accommodated in the current release of the product.
5. In Agile methodology the daily interactions are required between the business people and the developers.
6. In this methodology attention is paid to the good design of the product.
7. Changes in the requirements are accepted even in the later stages of the development.
8. An Agile/Scrum approach can improve organizational synergy by

breaking down organizational barriers and developing a spirit of trust and partnership around organizational goals.

Disadvantages of the Agile Methodology :

1. In Agile methodology the documentation is less.
2. Sometimes in Agile methodology the requirement is not very clear hence it's difficult to predict the expected result.
3. In few of the projects at the starting of the software development life cycle it's difficult to estimate the actual effort required.
4. Because of the ever-evolving features, there is always a risk of the ever-lasting project.
5. For complex projects, the resource requirement and effort are difficult to estimate.