1---What is SDLC ?

ANS---SDLC (Software Development life cycle)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

* A SDLC 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
* This are the phases of SDLC

1-Requirements Collection /Gathering

* Features, Usage scenarios, Requirements will change ,plane for change ,functional and non-functional
* Requirement definition usually consist of natural language ,supplemented by diagrams and table
* There are 3 types of problems

1- Lack of clarity

2- Requirement confusion

3- Requirement amalgamation

2-Analysis

* This phase defines the problem that the customer is trying to solve
* This analysis represents the “ what ” phase
* The deliverable design document is the architecture
* This phase represent the “ how ” phase

3-Design

* Design architecture document
* Implementation plan
* Critical priority analysis
* Performance analysis
* Test plan

4-Implementation

* In the implementation phase, the team builds the components either from scratch or by composition
* The implementation phase deals with issues of quality ,performance ,baselines ,libraries and debugging

5-Testing

* Regression testing
* Internal testing
* Unit testing
* Application testing
* Stress testing

6-Maintenance

* Configuration and version management
* Reengineering
* There are 3 types of maintenance

1. Corrective maintenance
2. Adaptive maintenance
3. Perfective maintenance

2---What is testing ?

ANS – software testing is the process is used to identify the correctness, completeness and quality of the developed computer software

* This are the software testing parts:
* Process
* All life cycle activities
* Static testing
* Dynamic testing
* Planning
* Preparation
* Evaluation

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

* Agile methods break the product into small incremental builds
* These builds are provided in iteration
* Each iteration typically lasts from about one to three weeks

Agile model believes that every project needs to be handled differently and the existing methods need to be tailored to best suit the project requirement .

* There r 4 types of agile methodology

1. Individual maintenance
2. Working software
3. Customer collaboration
4. Responding to change

~ Advantages :-

* Is a very realistic approach to software development
* Promotes teamwork and cross training
* Delivers early partial working solutions
* Little or no planning required
* Easy to manage

~ Disadvantages:-

* Not suitable for handling complex dependencies
* More risk of sustainability , maintainability and extensibility

4---Write SDLC phases with basic introduction?

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Corrective maintenance

Adaptive maintenance

Perfective maintenance

5---Explain Phases of the waterfall model?

ANS--- The classical software lifecycle models the software development as a step-by-step “ Waterfall” between the various development phase.

* Requirement are very well document clear and fixed
* Product definition is stable
* Technology is understood and is not dynamic
* The project is short

~ Advantages:-

* Simple and easy to understand and use
* Clearly defined stage
* Well understood milestones
* Easy to arrange tasks
* Process and results are well document

~ disadvantages:-

* No working software is produced until late during the life cycle
* High amount of risk and uncertainty
* Not a good model for complex and object-oriented project
* Poor model for long and ongoing project
* It is difficult to measure progress within stage

6--- Write phases of spiral model?

ANS---Spiral model was very widely used in the software industry as it is synch with natural development process of any product , learning with maturity and also involves minimum risk .

* For medium to high-risk project
* Requirements are complex and need evaluation to get clarity
* Significant change are expected in the product during the development cycle

~ Advantages:-

* Changing requirements can be accommodated
* Allows for extensive use of prototypes
* Users see the system early

~ Disadvantages:-

* Management is more complex
* End of project may not be known early
* Process is complex
* Spiral may go indefinitely

7--- Explain working methodology of agile model and also write pros and cons?

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8--- What is SRS?

ANS--- SRS(Software Requirement Specification) is a complete description of the behavior of the system to be developed

* It includes set of use case that describe all of the interaction that the user will have with the software
* Use cases are also known as functional requirement
* There are 3 types of requirement
* Customer requirement
* Functional requirement
* Non-functional requirement

9--- What is oops?

ANS-- Identifying objects and assigning responsibilities to these objects.

* Objects communicate to other objects by sending messages.
* Messages are received by the methods of an object
* An object is like a black box.
* The internal details are hidden.
* Object is derived from abstract data type
* Object-oriented programming has a web of interacting objects, each house-keeping its own state.
* Objects of a program interact by sending messages to each other.

10--- Write Basic Concepts of oops?

ANS-- Object

* Class
* Encapsulation
* Inheritance
* Polymorphism

Overriding

Overloading

* Abstraction

11--- What is object?

ANS—Object is an instance of class

* Object to create memory for that class
* Object to access the properties of an class expect private
* Sy:
* Classname objectname=new classname();

12--- What is class?

ANS—Class is an collection of data member (variables) and member function (process,methods ) with its behaviors

* Sy: class calssname
* {

Data member

Member function

}

13--- What is encapsulation?

ANS-- Encapsulation wrapping up of data into single unit

i.e --- (1) private your data member and member function

(2) data hiding at same level

14--- What is inheritance?

ANS--- Inheritance properties of parent class extends into child class

: main purpose is reusability ,extendsiblity

~ there are mainly 5 type

1---- single

2--- multilevel

3---- hierarchical

4---- multiple : java does not support directly

5---- hybrid: java does not support directly

15--- What is polymorphism?

ANS-- Polymorphism ability to take one name having many from or different forms

* There are mainly 2 type :
* Compile time (method overloading)
* Runtime (method overriding)

16--- Draw Usecase on online bill payment system (paytm) ?

ANS--