Assignment

MODULE.1 (FUNDAMENTAL)

1. What is SDLC

Ans. The software development life cycle is a process used by the software industry to design

,develop and test high quality software . it include some phases like planning , analysis, design, build , testing , deploy and maintain

1. What is agile methodology

Ans. Agile methodology is focus on process adaptability and customer satisfaction by rapid delivery of working software product .

It break the product into small increamental builds.these build are provided in iteration. Each and every iteration working on SDLC phases.iterative approach is taken and working software build is delivered after each iteration.

And the end product has all need of customer .

1. What is SRS

Ans. A software requirement specification (SRS) is a document that describe what the software will do and hoe it will be expected to perform .

It also describe the functionality the product needs to fulfill all stakeholders needs.

1. What is oops

Ans. Object oriented programming structure (OOPS) is a computer programming model that organizes software design around data , or object ,rather than functions and logic .

An object can be defined as a data field that has unique attributes and behavior .

Here object is mixture of data and function .

1. Write basic concepts of OOPS

Ans. OOPS aims to construct a program using classes and objects . oop concepts help the programmer control and access the data in a program easily .

In addition ,it improves the code readability and reusability . some of the other programming languages that use the OOPS approach are python, ruby, c++,c# and many more.

1. What is object

Ans . object is real life entity . an object is an abstract data type with the addition of polymorphism and inheritance .

Rather then structure programs as code and data , an object oriented system integrates the two using the concept of an “object” . an object has state (data) and behavior (function) Object can corresponds to things found in the real world.

1. What is class

Ans. The class is one of the defining ideas of OOPS. Among the important ideas about classes are: a class can have subclass that can inherit all or some of the characteristics of the class . in relation to each subclass the class becomes the superclass

1. What is encapsulation

Ans. The system of wrapping data and function together

A capsule (which we consume when we are ill ) hide/bind some power from in itself , means that capsule encapsulate the power contain it .

Data is kept hidden which cannot be accessed directly outside the object although it is available in the same program

The object maintain privacy of the data members however , the changes that take in method don’t affect other object .

9.what is inheritance

Ans. It giving the facility of reuse the code

For example child inherit some feature of their parents and also add their parents and also add some feature of their own

The object of a class acquire some properties of another class . this possible through by deriving a new class from the existing class

The class get inherited to another is known as “BASE CLASS OR SUPER CLASS “

The class inherited to another class is known as “CLASS OR SUB CLASS”.

10.what is polymorphism

Ans. You may know the word can have many meaning similarly . an operation may show entirely different behavior for the different data set .

Polymorphism is the ability of an object to take on many forms . you can say that a object (PERSON,PLACE OR THING) acts differently in different situation

For example ,A girl is married and mother of 2 children doing a teaching job

The she is a women first , teacher in school when she is in school , mother of two children , wife of someone at home, obvious daughter of someone.

Women plays different role in different times that is polymorphism.

Polymorphism is support the function overloading it is process of using a function /method for more that one purpose.

Function overloading is defined with same name but different parameters.

11.what is RDBMS

Ans. A relational database management system(RDBMS) is a collection of programs and capabilities that enable IT teams and other to create, update, administer and otherwise interact with a relation database.

Relational database store data in tables . tables can grow large and have a multitude of colums and records . RDBMS use SQL to manage the data in these large tables. The RDBMS you use is your choice and depends on the complexity or application.

12.what is SQL

Ans. STRUCTURED QUERY LANGUAGE . it is a programming language that is used to request information from a database . SQL can be used to manage and share data in relational database management system . moreover users can performs actions like insertion, deletion, selection, etc on the database .

13.write SQL commands

Ans. DDL: DATA DEFINITION LANGUAGE

DML: DATA MANUPULATION LANGUAGE

DCL: DATA CONTROL LANGUAGE

DQL: DATA QUERY LANGUAGE

16.write SDLC phases with basic introduction

Ans.It’s typically has 7 phases

1. Planning:- the purpose of this phase Is to find out the scope of the problem and determine solution . resources ,coast, time,benefits and other items should be considered here.

1. Analysis and requirements gathering :- the second phase is where teams consider the functional requirements of the project or solution . It’s also where system analysis takes place- - or analysing the needs of the end users to ensure the new system can meet their expectation

1. Design :- the third phase describe , in detail , the necessary specification , features an operations that will satisfy the functional requirements of the propose system which will be in place

1. Build :-now the real work begins the development or build phase marks the end if the initial section of the process. Additionally , this phase signifies the start of production . the development stage is also characterized by instillation & change.

1. Testing:- this phase involves system integration and system testing normally carried out by a quality assurance professional –to determine if the proposed design meets the initial set of business goals.

1. Implementation or coading:- the sixth phase is when the majority of the code for program is written , and when the project is put into production by moving the data and components from the old system and placing them in the new system via a direct cutover.

1. Operation and maintenance :- the last phase is when end users can fine-tune the system . if they wish, to boost performance ,ad new capabilities or met additional users requirements.

17.Explain phases of the waterfall model

Ans. 1. analysis & requirement : the second phases is whare teams consider the functional requirment of the project or soluation. It’s also whare system analysis takes place or analysing the needs of the end users to ensusre the way system can meet their expectation.

* 1. system design : the third describes ,in detail,the necessary specification ,features and operation thatwill satisfy the functional requirement of the proposed system ehich will be in place.

* 1. development : now the real work begin the development phase marks the end of the intial section of the process additionally.this phase signifies the start of production. The development stage is also characterized by installation & change.

* 1. testing : this phse involves sestems intergration ans system testing ( of programs and procedures ) normally carried out by a quality assurance ( QA ) professional to determind design meets the proposed design meets the initial set of business goals .

* 1. implementation : the sixth phase is when the majority of the code for the program is written,and when the projects is put into production by moving the data and components from the old system and placing in the new system via a direct customer .

1. write phases of spiral model

Ans. 1. Determine objective

* 1. identify and resolve risks
  2. development and test
  3. plan the next iteration

1. write agile manifesto principles

Ans. The 12 principles behind agile manifesto

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. 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 end 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 enhance 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.

1. what is join

Ans . a join is SQL operation performed to establish a connection between two or more database tables based on matching columns , thereby creating a relationship between the tables .most complex queries in an SQL database management system involves join commands. There are different types of joins.

1. write type of join

Ans. 1. INNER JOIN SYNTEX

* 1. LEFT JOIN SYNTEX
  2. RIGHT JOIN SYNTEX
  3. FULL JOIN SYNTEX

22.Explain working methodology of agile model and also write pros and cons

Ans. 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 .

Pros:- Is a very realistic approach to software development

Promotes teamwork amd cross training .

Functionality can be developed rapidly and demonstrated .

Resources requirements are minimum.

Suitable for fixed or changing requirements .

Delivers early partial working solution.

Good model for environments that change steadily.

Minimal rules , documentation easily employed

Enable concurrent development and delivery within an overall planned contex.

Little or no planning required.

Easy to manage.

Gives flexibility to developers.

Cons:- Not suitable for handling complex dependencies .

More risk of sustainability , maintainability and extensibility.

An overall plan, an agile leader and agile PM practice is a must without which it will not work strict delivery management distates the scope , functionality to be delivered, and adjustments to meet the deadlines.

Depends heavily on customer interaction , so if customer is not clear, team can be driven in wrong direction.

There is very high individuals dependency , since there is minimum documentation generated.

Transfer of technology to new team members may be quite challenging due to lace of documentation







