

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

2. 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 incremental 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 .

3. 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.

4. 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 behaviour .

Here object is mixture of data and function .

5. 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.

6. What is object

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

Rather than 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 behaviour (function) Object can corresponds to things found in the real world.

7. WHAT IS CLASS ?

ANS. The class is one of the defining ideas of object – oriented programming .among the important ideas about classes are : a class can have subclass that can inherit all or some of the characteristics of the class.

8. WHAT IS ENCAPSUALATION ?

ANS. Encapsulation is the practice of including in an object everything it needs hidden from other objects. the internal state is usually not accessible by other objects.

Encapsulation is placing the data and the function that work on that data in the same place.

9. what is inheritance ?

Ans. Inheritance means that one class inherits the characteristics of another class. This is also called a ‘is a’ relationship.

The existing class called as base class, new class is formed called as derived class.

This is a very important concept of object-oriented programming since this feature helps to reduce the code size.

10. what is polymorphism ?

Ans. Polymorphism means “having many forms” . it allows different objects to respond to the same message in different ways, the response specific to the type of the object.

The most important aspect of an object is its behaviour (the things it can do) . a behaviour is initiated by sending a msg to the object (usually by calling a method)

The ability to use operator or function in different ways in other words giving different meaning or function to the operator or function is called polymorphism.

11. what is RDBMS ?

Ans. A database management system (RDBMS) is a database management system (DBMS) that is based on the relation model as introduced by E.F. code.

A RDBMS is a collection of programs and capabilities that enable it terms and other to create update ,administer and otherwise interact with a relation database .

12. what is SQL ?

Ans. structured query language (SQL) is a standardized programming language that is used to manage relational database and perform various operation on the data in them.

13. write SQL commands ?

Ans. DDL - data definition language

DML - data manipulation language

DCL - data control language

DQL - data query language

14. write SDLC phases with basic introduction ?

Ans. SDLC phases

1. Planning : the purpose of this first phase is to find out the scope of the problem and determine solutions , resources ,cost ,time ,benefits and other items should be considered here.

2. analysis & requirement : the second phases is where teams consider the functional requirement of the project or solution. It's also where system analysis takes place or analysing the needs of the end users to ensure the way system can meet their expectation.

3. system design : the third describes ,in detail, the necessary specification ,features and operation that will satisfy the functional requirement of the proposed system which will be in place.

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

5. testing : this phase involves systems integration and system testing (of programs and procedures) normally carried out by a quality assurance (QA) professional to determine design meets the proposed design meets the initial set of business goals .

6. 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 .

7. operations & maintenance : the last phase is when end users can fine tune the system, if they wish, to boots performance, add new capabilities or meet additional users requirement

17. explain phase of the waterfall model ?

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18. write phases of spiral model ?

Ans. 1. Planning
2. risk analysis
3. engineering
4. customer evaluation

19. write agile manifesto principles ?

Ans. 1. Individuals and interaction - in agile development self organization and motivation are important ,as are interaction like co-location and pair programming.

2. working software - demo working software is considered the best means of communication .

With the customer to understand their requirement , instead of just depending on documentation.

3. customer collaboration – as the requirement can not be gathered completely in the beginning.

4. responding to change – agile development is focused on quick response to change and continuous development.

20. what is join ?

Ans. A join clause is used to combine rows from two or more tables ,based on a related column between them. Notice that the “customer id ” column in the “order” table. The relational between the two tables above is the “customer id” column.

21. write type of join ?

Ans. There are four types of join.

1. Inner join syntax
2. Left join syntax
3. Right join syntax
4. Full join syntax

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 stake holder and continuous improvement at every stage. Once the work begins, teams cycle through a process of planning , executing ,and evaluating .

- Pros : changing requirement can be accommodated .

☐ Allows for extensive use of prototypes

☐ Requirement can be captured more accurately.

☐ Users see the system early.

② Development can be divided into smaller parts and more risky parts can be developed earlier which helps better risk management .

- Cons : management is more complex.
- End of project may not be know early.
- Not suitable for small or low risk projects and could be expensive for small projects .
- Process is complex.
- Spiral may go indefinitely.
- Large number of intermediate stages require excessive documentation.





