**ASSIGNMENT -1**

**1.What is SDLC?**

Answer: SDLC (Software development life cycle)

Definition: SDLC is the process of developing software through business needs, analysis ,design ,implementation, release and maintenance.

**2. Write SDLC Phase with basic Introduction.**

Answer:

**1.Requirement:** This is the basic stage here the senior member of the team gather the requirements from the customer the about what they want and plan software project according to the requirements.

**2.Planning:** We define all the requirement which we gather in the first stage from customer show the documented file known as SRS to the customer and get it approved to start working for these functionalities.

**3.Design:** On the basic of SRS file which we developed in the previous the stage here we develop the design of the software Design means making the class diagrams activity diagram & sequence diagram etc.

**4.Implememenation:** On the stage we finalize a design on the basic of SRS requirement specification which base on the of requirement of the users In this section we will build the actual product on the basic of design

**5.Testing:** we build a proper product in the previous section here you will test that product.There are lots of testing approaches you will select one of them.

**6.Maintance(deployment):** once the product is tested in this stage we deploy or install the software at the customer side customer start using for the requirement.

\*SHORT NOTE OF SDLC :

SDLC in 6 sentence :

1. collect requirement
2. make srs document
3. draw the design according to srs
4. developer software on the basic of design
5. test what you developed
6. give it to the customer

## 3. Explain phase of the waterfall Model.

Answer:

**1.Requirement:** This is the basic stage here the senior member of the team gather the requirements from the customer the about what they want and plan software project according to the requirements.

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**4.Write phase of Spiral Testing.**

Answer: Spiral model was developed by “Barry Bohearm” in the year 1968 as a part of SEI(Software engineering institute).

-It is called Ineta model because it contains all the life cycle model.

-The Main purpose of spiral model reduce the risk in the Project spiral model has been Introduced.

-One business analyst is required to reduce the risk with the help of developer and client then we can say how much cost it will take to developed.

-This model is mainly suitable for large and complex project.

-It is called an spiral because the same activities are repeated for all the spiral.

-Each spiral or loop represent the software development process.

# 5. What is SRS ? (Software Requirement Specification)

Definition: A document use to describe the behaviour of the software system .functional – non functional requirement of the software system.

**6.what is oops?**

Definition: oops stands for objected oriented programming language the main purpose of oop is to deal with real world entity using programming language.

* An object is like a black box
* A internal details are hidden

**7.what is agile methodology ?**

- Agile methodologies means the different approaches of agile.

- as i said in a first slide agile is bag in which we have different methods of development.

- so those methods or those things which are in agile are methodology.

- so let’s see the methodology only by one.

**8. Write basic concepts of oops**

1. object

2. class

3. Encapulsation

4. inheritance

5. polymorphism

1. class : The class is a model or blueprint or prototype of an object that defines or specifies all the properties of the objects.

2. object :An objects is an entity or instance of class . the objects are mostly the physical entity but it can be a logical entity as well. Each object has state and behaviours.

3. Abstraction: Only essential part should be display and reset of part will hide to be it.

- Data hiding in different in level.

4. inheritance: inheritance is the process of acquiring or sharing the properties and behaviour of the base class into the sub class to achieve reusability.

5. Encapulasation : Encapulasation is the process of binding the data by making it private and functions to process that data into a single unit. Encapsulation provides security to the data .

6. Polymorphism: Polymorphism mean same name having different functionality .

* Data hiding : data hiding is the process of making the data members private so those will not be visible to other classes. The data of a object is not accessible to another objects , bcoz

each object has independent copy of the instance variable .

**9. What is object?**

Defination :This is the basic unit of object oriented programming

* Oriented Programming system black box testing ,functional testing .

**10. What is class?**

Definition : A class is blue print which include all your data it contains variable &methods to describe the behaviour of an object .

**11.What is Encapulsation?**

Definition: Encapulsation is the practice of including in an object everything it needs hidden other object .the internal state is usually not accessibke by other objects.

**12.What is inheritance ?**

Definaition: inheritance means that one inherits the characteristics of another class. This is also called a is a relationship.

**13. What is polymorphism?**

Definition : polymorphism means having many forms

* It allows different object to respond to the same message in different ways the response specific to the typr of the objects.

**14. What is RDBMS.**

-RDMS stands for relational database management system RDBMS store the data into collection of table which is related by common field between the column of the table .it also provides relational operators to manipulate the data stored into the table

**15.What is SQL**

SQL stands for structured query language and it is used to communicate with the database. This is a standard language use to perform tasks such as retrieval, updating, insertion and deletion of data from a database standard SQL COMMANDS are select.

**16. Write SQL commands**

\*DDL: Data Definition language

\*DML : Data manipulation language

\*DCL: Data control language

\*DQL : Data query language

**17.Write agile manifesto principles.**

Individual and interactions: in agile development, self –origination and motivation are important as are interaction like co –location and pair programming

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

Customer collaboration: As the requirement cannot be gathered completely in the beginning of the project due to various factors ,continuous customer ,interaction is very important to get proper product requirement.

Responding to change : Agile development is focused on quick response to change and continuous development

**18.Explain working methodology of agile model & also write pros & cons**

Agile SDLC model is a combination of iterative and incremental process model with focus on process adapabtality and customer satisfaction by rapid delivery of working software product

Agile methods break the product into small incremental builds

These builds are provided in iterations.

Every iteration involves cross functional teams working

At end of the iteration a working product is displayed to the customer and important stakeholders.

Agile model believe that every project needs to be handled differently and the existing methods needs to best suit the project requirements.

In agile the tasks are divided to time boxes to deliver specific features for relrase

Agile thought process had started early in the software development and started becoming popular with time due to its flexibility and adaptability.

**PROCS :**

* Is a very realistic approach to software development
* Functionality can be developed rapidly and demonstrated
* Resource requirement are minimum
* Suitable for fixed or changeing requirements.
* Delivers early partial working solutions
* Good model for environment that change steadily
* Little or no planning required
* Easy to mange
* Give flexibility to developers.

**CONS :**

* Not suitable for handing complex dependencies
* More risk of sustainability, manintanibilty , and extensity
* An overall plan, an agile leader and agile PM practice is a must without which it will not work.
* There is very high individual dependency ,since there is minimum documentation generated.
* Transfer of technology to new team member may be quite challenging due to lack of.

**19. What is joins?**

Definition : A join clause is used to combine rows from two or more table based on the Colum between them.

**20. Write type of joins**

* INNER JOIN : returns records that matching value in both tables
* LEFT JOIN: Returns all records from the left join & the matched recored in forms the
* RIGHT JOIN: Returns all recoreds form the right table and matched recorders form the left table
* FULL JOIN : Retuens all records when there is a matched in either left join & right join.

