**Software Testing Assignment**

**Module–1(Fundamental)**

1. **What is SDLC?**

SDLC stand for “Software Development Life Cycle”.

* Requirement Gathering
* Analysis
* Designing
* Development
* Testing
* Deployment and Maintenance

1. **What is software testing?**

Software testing is the process of Verification and Validation of the software to check wither it is working as per expectation.

1. **What is agile methodology?**

Agile is all about getting reviews from clients and improving the existing projects in small sprints with Effectiveness and efficiency.

In agile all people are working in a team, all have same responsibility whether he is developer, tester, business analyst etc. there is no senior and junior.

1. **What is SRS?**

SRS stand for “Software Requirement Specification” it is a Document prepared by business analyst or System analyst.

* It is described what will be the feature of software and what will be its behaviour (how it will perform).
* The SRS consists of all necessary Requirement required for the project Development.
* Parts of SRS Documents
* Functional Requirement of the system.
* Non-Functional Requirement of the system
* Goal of implementation

Note: Without proper SRS Documentation it is very difficult to provide the maintenance for the Engineers.

1. **What is oops**

OOP stand for “Object Oriented programming language”

1. **Write Basic Concepts of oops?**

OOP stand for “Object Oriented programming language” is a program approach that are does on class and objects which can contain data and code that manipulate that data.

Example :-

Class Name(person)

{

Age;

Name;

Address;

};

**9. What is Object?**

Object is a concrete represent of the blueprint that is defined by the class.

* Object property
* State(data)
* Behaviour (Function)

**10.** **What is class?**

Class is a user- define data type or blueprint that wrapped data and function in to a single entity.

Syntax:

Class class-name

{

Data

And

Function

};

**11. What is Encapsulation?**

Encapsulation menace finding data and method within a class, providing control over the accessibility and it presents external code from directly modifying the internal data on an object.

* Declare the class variable as a private.
* Declare the class method as a public.

Example: Class is the best example of encapsulation.

Class person

{

Private:

Data

Public:

Function()

{

}

};

**12. What is inheritance?**

Inheritance allows a class to inherit the properties and behaviour from another class.

* + - Single
    - Multiple
    - Multilevel
    - Hybrid
    - Hierarchical

Example:-

class base

{

Data

And

Function

};

Class derive: public base

{

Add() Function

}

**14. What is polymorphism?**

Polymorphism is a concept in which an object can be treated in different ways it means that object of a class can be used used as objects of their derived class.

1. **Type of polymorphism**

* Static polymorphism
* Dynamic polymorphism

**15. What is Verification and Validation?**

**16. What is Static testing and Dynamic testing?**

**Verification :** Are we building the product right?

Whether the product is built right according to the requirements or not.

**Static testing:** It doesn't require coding knowledge

Ex : login page 📄 if you are logged in the login page then you will redirect to the home 🏠 page of the website. This is one type of verification or static testing that we perform.

**Validation :** Are we building the right product?

Whether the right product is built that fulfils the user's requirements or not.

**Dynamic testing:** required coding knowledge

Ex : while logging you enter your credentials into text box that validate weather the email address has predefined structure or not and also validate weather the password has correct or not. This is validation.

**17. What is agile? Full Explain**

Agile is all about getting reviews from clients and improving the existing projects in small sprints with effectiveness and efficiency.

In today's world clients have no time at all they want immediate results or small progress in their software product. Our waterfall model can't achieve clients’ requirements quickly and that is why we use agile Methodology which divides our projects in a small chunks/part where every part has some modules/functionality to be done in a specific period of time.

In the waterfall model we are planning a project as a whole where in agile Methodology projects is divided into the smaller targets and we need to achieve those targets and fulfil clients requirements

In agile all peoples are working in a team, all have same responsibility whether he is developer, tester, business analyst etc. there is no senior and junior

Sprints: it's a short period of time in which we developed functionality as clients requirements and by giving demo we again take clients feedback and review.

Agile has 2 frameworks:

1) SCRUM

2) KANBAN

Explanation:

1) SCRUM or SCRUM MASTER

SCRUM is a framework of agile Methodology which follows agile principles and try to get results in specific period of time (sprints)

A person who manages whole project life cycle and getting feedbacks of clients and also analyse the improvement which needed in the projects is called as SCRUM MASTER

In SCRUM all work is divided into 15 or 20 days of sprints and according to that we need to give demo to our client that what's status of the products and clients will give feedbacks and some changes and we need Solve those issues

with effectiveness.

2) KANBAN

Same as scrum but the difference is that here is no specific time frame. Where in SCRUM we have specific time sprints of 10 days or 15 days and this short period of time frame we need to complete our work.

Visualization of to do list

Work in progress

Pending

Done

Backlog

Bday example