Module 1 Assignment

Q.1- What is SDLC?

Ans: - Software Development Life Cycle is a structure imposed on the development of the software product that defines the process for planning, implementation, testing, documentation, deployment and ongoing maintenance & support.

Q.2- What is software testing?

Ans: - Software testing is the process of executing a program or application with the intent of finding the software bug.

Q.4- What is SRS?

Ans: - System Requirement Specification is the basic requirements that needs to be fulfilled in order to perform the test.

Q.5- What is OOP?

Ans: - Object Oriented programming uses “Objects” in programming. It aims to implement real world entities like object, class, polymorphism, encapsulation, inheritance etc in programming. Its main aim is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function.

Q.6- Write basic concepts of OOP.

Ans: - The basic concepts of OOP include-

- Object
- Class
- Encapsulation
- Polymorphism- Overloading and Overriding.
- Inheritance
- Abstraction

Q.7- What is Object?

Ans: - An object is an identifiable entity which has some characteristics and behaviour. It is an instance of class. When a program is executed, objects interact with each other in the form of message. The data and functions that operate on data bundled as a unit is called Object.

Q.8- What is class?

Ans: - Class is a user defined data type, which holds its own data members and member functions, which can be accessed and used by creating an instance of that class. A class is like a blue print of an object. It can be described as a definition or template for an object and describes the properties and behaviour of that object, but without any actual existence.

Q.9- What is encapsulation?

Ans: - In normal terms, encapsulation is wrapping up of data and information under a single unit. In OOP, encapsulation is defined as binding together data and function that manipulate them. It is a practice of including in an object, hidden from another object. The internal state is usually not accessible by another object.

Q.10- What is inheritance?

Ans: - The capability of a class to derive properties and characteristics from another class is called inheritance. This is also called an “is a” relationship.

Q.11- What is Polymorphism?

Ans: - The word polymorphism means having many forms. We can define Polymorphism as the ability of a message to be displayed in more than one form. It allows different objects to respond to the same message in different ways, the response which is specific to the type of object.

Q.12- Draw use case of Online book shopping.

Ans: - https://lucid.app/lucidchart/0e375af8-caf8-4372-8eb7-5476f92d6be5/edit?viewport_loc=-422%2C198%2C2048%2C1086%2C0_0&invitationId=inv_10b3dbc9-af99-4e9c-8b8d-b61dbd7f7f39

Q.13- Draw use case of Online bill payment system.

Ans: - https://lucid.app/lucidchart/905b1179-d10b-4460-b867-10e314c40aec/edit?view_items=QlP_i8QBUcw4&invitationId=inv_3a2df3f8-73ad-4c40-9fef-283f31298796

Q.14- Write SDLC phases with basic introduction.

Ans: - The Software Development Life Cycle consists of following phases-

1) **Requirement gathering**- In this first step, the information from the client is gathered to understand customer needs.
2) **Analysis**- Based on the information gathered, we then analyse and determine, what model we are going to implement and specify the requirements. This phase represents the “**What”** phase.
3) **Design**- In this phase, architecture documents are designed. The design team expands upon the information established in the requirement document. The architecture team also converts the typical scenario into a test plan.
4) **Implementation**- In this step, the team builds the components either from scratch or by composition. For example- a component may be narrowly designed for this particular system or it can be made more general to satisfy a reusability guideline. The implementation phase, deals with issues of quality, performance, baseline, libraries and debugging.
5) **Testing**- It is a different phase, which is performed by testing team after implementation is done. In this phase, the quality of the program is checked and made sure that if it fits the requirement. Quality is a distinguishable attribute of a system, indicating the level of excellence.
6) **Maintenance**- It is one of the activities in software engineering for enhancing and optimizing the deployed software, as well as fixing defects. The developing organization or team will have some mechanism to document and track defects and deficiencies.

Q.15- Explain phases of the Waterfall model.

Ans: -