**MODULE: 1**

**SE – Overview of IT Industry**

1. **What is software? What is software engineering?**

* *A Software is a piece of code written in form of programming language to sort of specific task*
* *Software Engineering is the process of designing, developing, testing, and maintaining software. It is a systematic and disciplined approach to software development that aims to create high-quality, reliable, and maintainable software*

1. **Explain types of software**

*Types of software:*

* *System software (Software created to run hardware – E.g. - Drivers used to run webcam, blue-tooth - interact between software and hardware)*
* *Programming software (converts high level language into low level (machine) language E.g. - Compiler and Interpreter)*
* *Web application software (used to website applications)*

1. **What is SDLC? Explain each phase of SDLC**

* *The Software Development Life Cycle (SDLC) is a methodology with clearly defined processes for creating high-quality software12345. The SDLC methodology focuses on the following phases of software development:*
* *Requirement analysis*
* *Planning*
* *Software design such as architectural design*
* *Software development*
* *Testing*
* *Deployment*
* *Maintenance*

1. **What is DFD? Create a DFD diagram on Flipkart**

* *DFD is the abbreviation for Data Flow Diagram*
* *A DFD visualizes how data moves between different components of a system, including processes, data stores, and external entities.*
* *It provides insight into the inputs, outputs, transformations, and storage of data*

1. **What is Flow chart? Create a flowchart to make addition of two numbers**

* *A flowchart is a diagram that visually represents a process, system, or computer algorithm. These diagrams use shapes like rectangles, ovals, and diamonds to define different steps, along with connecting arrows to indicate flow and sequence.*

1. **What is Use case Diagram? Create a use-case on bill payment on paytm**.

* *A Use Case Diagram is a vital tool in system design, it provides a visual representation of how users interact with a system*
* *It serves as a blueprint for understanding the functional requirements of a system from a user’s perspective, aiding in the communication between stakeholders and guiding the development process*