***SE - Overview of IT Industry***

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

**Ans :**

**Software is a collection of codes, documents, and triggers that does a specific job and fills a specific requirement.**

**Engineering is the development of products using best practices, principles, and methods.**

**Software Engineering Definition**

What is software engineering? It is a branch of engineering that deals with the

development of software products. It operates within a set of principles, best practices,

and methods that have been carefully honed throughout the years, changing as software

and technology change.  
  
 Software engineering leads to a product that is reliable, efficient, and effective at what it

does. While software engineering can lead to products that do not do this, the product will

almost always go back into the production stage.

**2. Explain types of software**

**Ans :**

## 1. System software

**If you think of software as being in layers, the system software is the**

**bottom layer: it sits between the hardware and the application software.**

**Operating systems like Windows, macOS, Android and iOS are examples**

**of system software. Operating systems are loaded into RAM when the**

**device starts up, and have access to the hard drive.**

## 2. Utility software

**Utility software is part of the system software and performs specific tasks**

**to keep the computer running. Utility software is always running in the**

**background. Examples of utility software are security and optimisation**

**programs.**

**Security programs include anti-virus software that scans and removes**

**viruses. Most computers will include some sort of anti-virus software, but**

**you can add your own.**

**Optimisation programs can include tools for system clean-up, disk**

**defragmentation, and file compression. These tools are typically installed**

**as part of the operating system. They have access to the hard drive to**

**keep it tidy.**

## 3. Application software

**This is everything else! Anything that is not an operating system or a**

**utility is an application or app. So a word processor, spreadsheet, web**

**browser, and graphics software are all examples of application software,**

**and they can do many specific tasks.**

**You can remove and add applications on your computer using the**

**operating system.**

**Application software like a word processor regularly directs the operating**

**system to load and save files from and to the hard drive. When you are**

**working on a file, it is saved temporarily in the RAM. It is only when you**

**choose to save it that it is written to the hard drive.**

**This is why, if the computer crashes while you’re working on a file, you**

**may lose any changes you didn’t save. Data stored in the RAM is volatile.**

**The data is lost when the RAM loses power.**

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

**Ans :**

## SDLC Meaning (Software Development Life Cycle)

**An SDLC (software development life cycle) is a big-picture breakdown of all the**

**steps involved in software creation (planning, coding, testing, deploying, etc.).**

**Companies define custom SDLCs to create a predictable,**[**iterative framework**](https://phoenixnap.com/glossary/iterative-development)**that**

**The 7 Phases Of SDLC (Software Development Life Cycle)**

**Stage 1: Project Planning. ...**

**Stage 2: Gathering Requirements & Analysis. ...**

**Stage 3: Design. ...**

**Stage 4: Coding or Implementation. ...**

**Stage 5: Testing. ...**

**Stage 6: Deployment. ...**

**Stage 7: Maintenance.**

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

**Ans :**

**A data flow diagram (DFD) is a graphical or visual representation using a**

**standardized set of symbols and notations to describe a business's**

**operations through data movement. They are often elements of a formal**

**methodology such as Structured Systems Analysis and Design Method**

**(**[**SSADM**](https://www.techtarget.com/searchsoftwarequality/definition/SSADM)**). Superficially, DFDs can resemble flow charts or Unified**

**Modeling Language (**[**UML**](https://www.techtarget.com/searchsoftwarequality/definition/Unified-Modeling-Language)**), but they are not meant to represent details of**

**software logic.**

**5. What is Flow chart? Create a flowchart to make addition of**

**two Numbers.**

**Ans :**

**A flowchart is a picture of the separate steps of a process in**

**sequential order. It is a generic tool that can be adapted for a wide**

**variety of purposes, and can be used to describe various processes,**

**such as a manufacturing process, an administrative or service,**

**process, or a project plan.**

**Submitted by: Janvi Panchal**

**Submitted by: Janvi Panchal**