1. What is software? What is software engineering?

Ans: **Defination of software:-**

Software is a set of computer programs and associated documentation and data.

This is in contrast to hardware, from which the system is built and which actually performs the work.

Defination of software engineering:-

Software engineering is defined as a process of analyzing user requirements and then designing, building, and testing software application which will satisfy those requirements.

2. Explain types of software

Ans: There are five types of software

1. Application Software
2. System Software
3. Driver Software
4. Middleware
5. Programming Software

Explanation of all types of software given below:-

1. Application Software:

Defination: Application software is a computer software package that performs a specific function for a user.

Example: Microsoft office, Paint, PowerPoint etc....

2. System Software:

Defination: System software are designed to run a computer's application programs and hardware

System software coordinates the activities and functions of the hardware and software.

Example: Notepad, Calculator etc....

3. Driver Software:

Defination: This software is often considered a type of system software.

It is controls hardware device.

Every device that is connected to a computer needs at least one device driver to

Function

Example: Audio Driver, Video Driver etc....

4. Middleware:

Defination: This software describes software that mediates between application and system

Software or between two different kinds of application software

Example: Database middleware and Application server middleware

5. Programming Software:

Defination: Computer programmers use programming software write code.

Programming software and programming tools enable developers to develop, write, Test and debug other software programs.

Example: Turbo C, Sublime etc...

3. What is SDLC? Explain each phase of SDLC

Ans: Defination of SDLC:

Software development life cycle is process used by the software industry to design, develop and test high quality software.

Phases of SDLC:

There are six main phases of software development life cycle (SDLC)

1. Requirement Gathering
2. Analysis
3. Designing
4. Implementation
5. Testing
6. Maintenance

Explanation of all phases of SDLC is given below:-

1. Requirement Gathering

Requirements gathering are the process of understanding what you are trying to build and why you are building it.

2. Analysis

The analysis stage includes gathering all the specific details required for a new system as well as determining the first ideas for prototypes.

3. Designing

The design phase is a stage where software developer defines the technical details of the product.

Depending on the project, these details can include screen designs, databases, sketches, system interfaces and prototypes

4. Implementation

This phase is initiated after the system has been tested and accepted by the user.

In this phase the system is installed to support the intended business functions.

System performance is compared to performance objectives established during the planning phase.

5. Testing

In this phase when testing is done to ensure that the entire application works according to the customer requirements.

After testing the QA and testing team might find some bugs or defects and communicate the same with the developers.

6. Maintenance

The maintenance phase of the SDLC occurs after the product is in full operation.

Maintenance of software can include software upgrades, repairs and fixes of the software if it breaks.

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

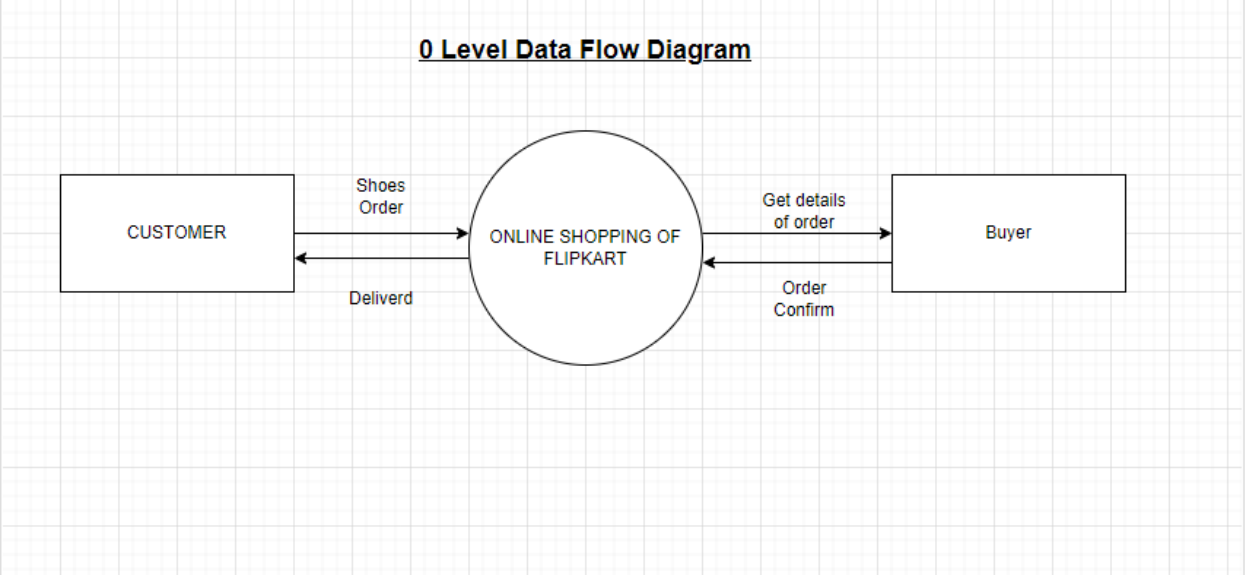
Ans: <u>Defination of DFD:</u>

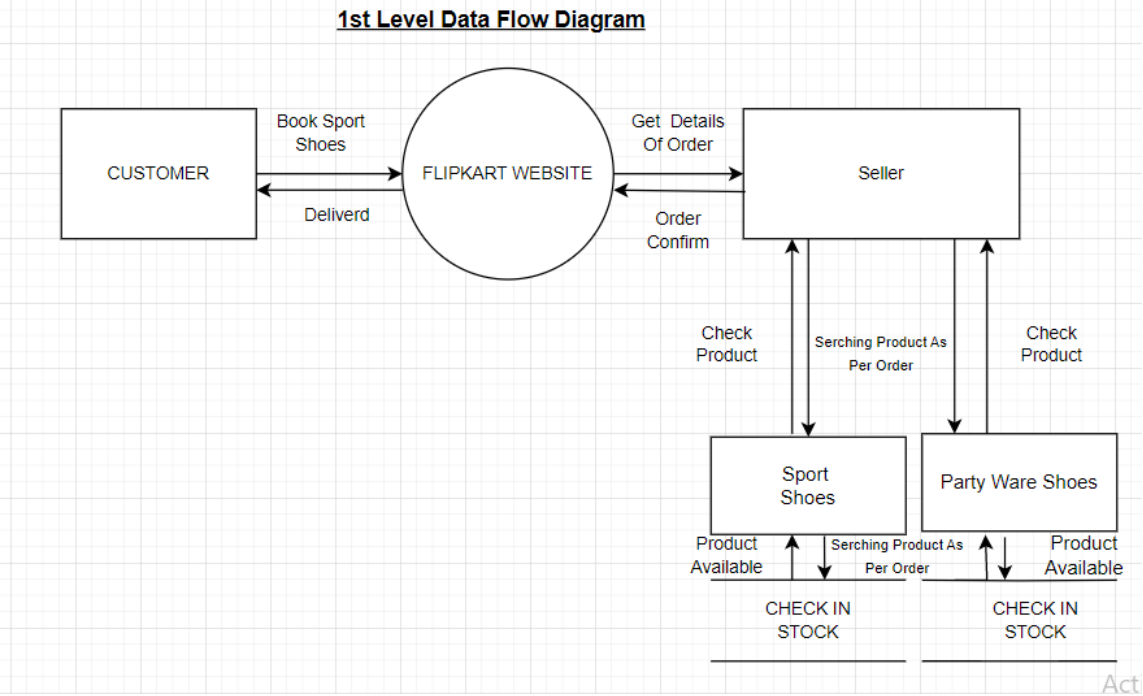
A data flow diagram is a way of representing a flow of data through a process or a system

The DFD also provides information about the outputs and inputs of each entity and the process itself

A data flow diagram has no control flow there are no decision rules and no loops.

Flipkart flow chart:



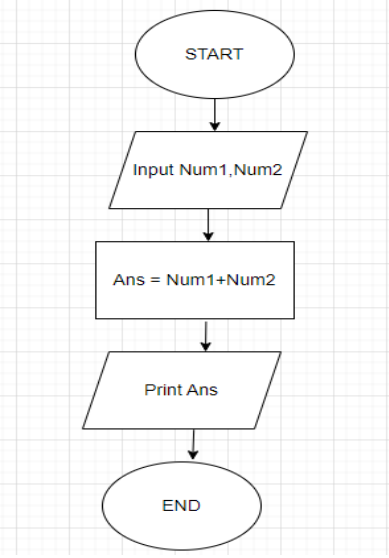


4. What is flow chart? Create a flowchart to make addition of two numbers

Ans: <u>Defination of flow chart</u>

A flowchart is a type of diagram that represents a workflow.

A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task.



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

Ans: <u>Defination of Use case Diagram</u>

A Use case diagram is a graphical depiction of a user's possible interactions with a system.

A use case diagram shows various use cases and different types of users the system has and will often be accompanied by other types of diagrams as well.

The use cases are represented by either circles or ellipses.