Assignment-1

MODULE-1: SE- Overview of IT Industry

1) What is software? What is software engineering?

→Software:-

- Software is a set of instructions, data or programs used to operate computers and execute specific tasks.
- It is opposite of hardware, which describes the physical aspects of a computer.
- Software is a generic term used to refer to applications, scripts and programs that run on device.

→ Software engineering:-

- Software engineering is an engineering-based approach to software development.
- A software engineering is a person who applies the engineering design process to design, develop, test, maintain computer software.
- The term programmer is sometimes used as a synonym, but may emphasize software implementation over design and can also lock connotations of engineering education or skills.

2) Explain types of software.

→ the two main categories of software are application software and system software.

1)Application software:-

- An Application is software that fulfills a specific need or performs tasks.
- Applications software is a computer software package that performs a specific function for a user, or in some cases, for another app.

- Example of applications software:- Instagram ,whatsapp, snapchat, facebook exe….

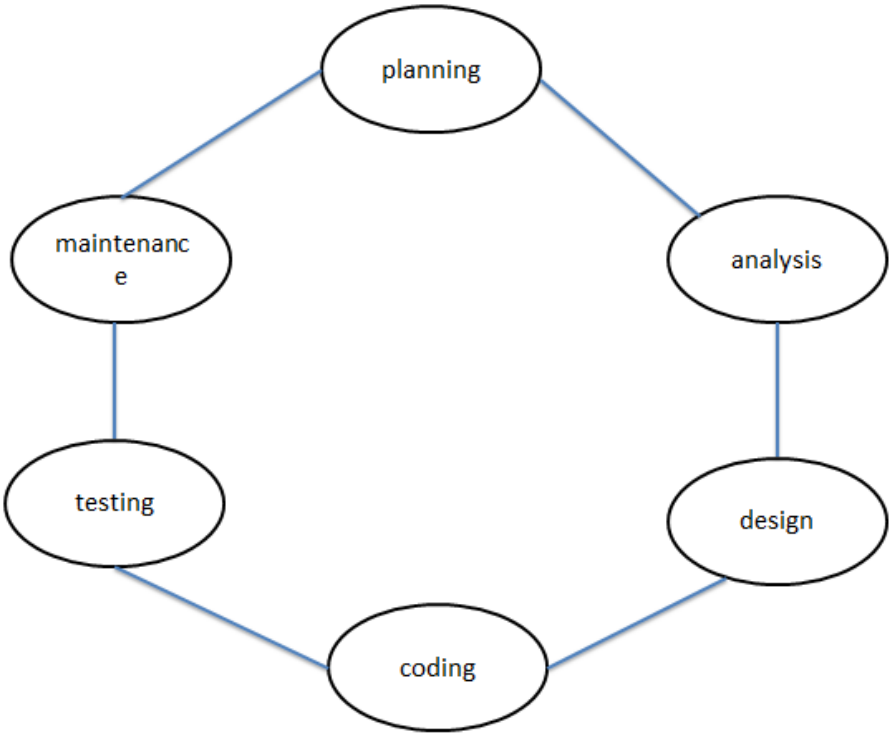
2)System software:-

- System software is a designed to run a computer's hardware and provides a platform for applications to run on top of.
- These software programs are designed to run a computer's application programs and hardware.
- Example of system software:-calendar, calculator, clock, compass, exe….

3) What is SDLC? Explain each phase of SDLC

→SDLC:-

- SDLC stands for software development life cycle.
- SDLC is focused on software development, while PDLC is focused on product development.
- SDLC consists of various phases, such as planning, design, coding, testing, and deployment, while PDLC includes additional phases, such as market research, product planning, and marketing.



Phases of SDLC

1)planning :

- The first phase of the SDLC is the project planning stage where you gathering business requirements from your client or stakeholders.
- This phase is when you evaluate the feasibility of creating the product, revenue potential, the cost of production, the needs of the end-users, etc…

2) analysis :

- The analysis stage includes gathering all the specific details required for new system as well as determining the first ideas for prototypes.
- This phase involves gathering information about the software requirements from stakeholders, such as customers, end-users, and business analysts.

3) Design:

- The second of the software development life cycle phases is often done concurrently with the first.
- This phase is necessary for the developers. They will first outline the details for the overall application long side specific aspects, such as; use interface, system interface, network and network requirements and database

4) Coding:

- Computer programming or coding is the composition of sequences or instructions, called programs, that computers can follow to perform tasks.
- It involves designing and implementation algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.

5) Testing:

- Different types of testing occur during this phase, such as a code quality, unit testing, integration testing, performance testing and security testing.

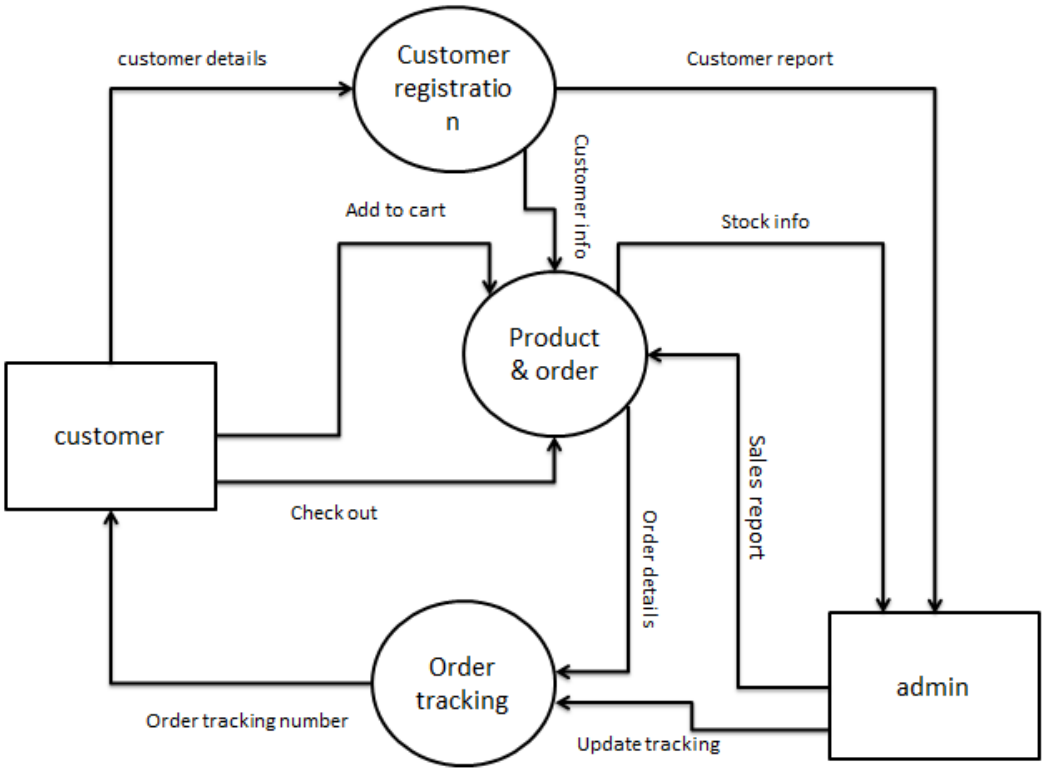
6) Maintenance:

- Maintain software functionality, make upgrades to the coding, and ensure any repairs needed to the software are completed.
- The customer is responsible for maintaining the software by upgrading it when advised.

4) What is DFD? Create a DFD diagram on flipkart.

- DFD is the abbreviation for the data flow diagram.
- The flow of data of a system or a process is represented by DFD.
- It also gives insight into the inputs and outputs of each entity and the process itself.
- DFD does not have control flow and no loops or decision rules are present.

DATA FLOW DIAGRAM ON FLIPKART



5) What is flow chart? Create a flowchart to make addition of two numbers

- Flowchart is a type of diagram that represents a workflow or process.
- A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving tasks.
- The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows.

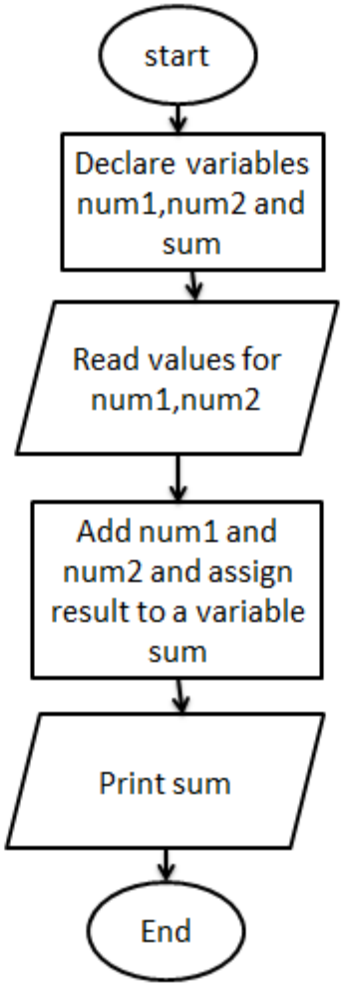
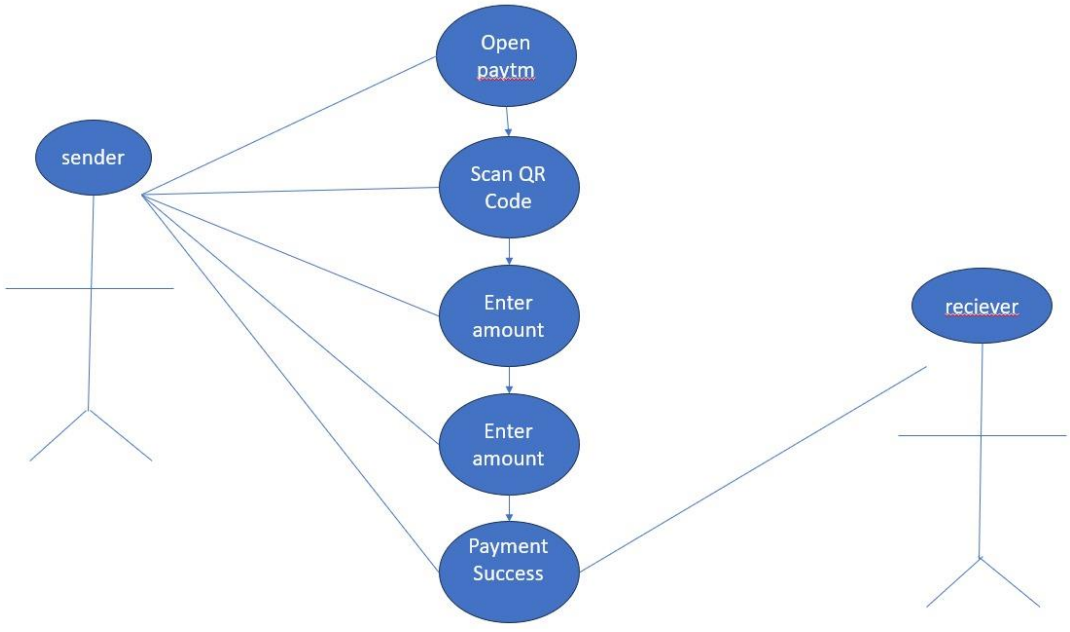


Fig 1.0: flowchart to make addition of two numbers

6) What is use case diagram? Create a use case on bill payment on paytm.

- Use-case diagrams the high-level functions and scope of a system.
- These diagrams also identify the interactions between the system and its actors.
- The use cases and actors in use-case diagrams describe what the system does and how the actors use it, but now how the system operators internally.

Use case on bill payment on paytm.



PREPARED BY:- CHANDRAVADIYA DIXIT