

1. What is software ? What is software engineering?

=> Software nothing but set of instruction or

Set of programs are known as software. Software is that of a computer, which cannot be touched. Software tell a computer what to do and how to do it.

* Types of software

(a) System software

(b) Application software

(c) Development software

* Software engineering:-

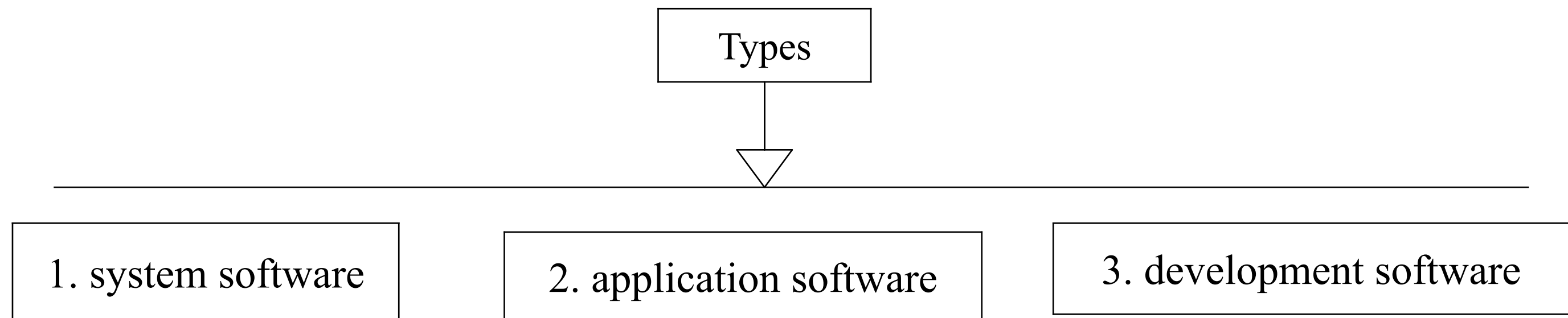
Software engineering is a technique through which we can develop or create software for computer systems and any other electronic devices. In other words, software engineering is a process in which user needs are analysed and software is designed based on their needs.

Software engineering builds these software and applications by using designing and programming languages.

In order to create a complex software we should use software engineering techniques as well as

to reduce the complexity we should use abstraction and decomposition where abstraction describes only important part of the software become simple.
And decomposition breakdown the software into no. Of module where each module produces a well defined independent task.

2. Explain types of software?
=> Three types is software



1. system software:-

System software is a software designed to provide a platform other

software . System software control and manage the operations of computer hardware.

Example—> operation system (windows, android, Linux ...)

2. application software:-

The software that helps you to do a presentation software type of work is called application software.

Example—>MS word , excel

3 .Development software:-

Software development refers to a set of computer science activities that are dedicated to the process of creating, designing, deploying, and supporting software. Software itself is the set of instructions or programs that tell a computer what to do. It is independent of hardware and makes computer programmable.

3. what is SDLC ? Explain each phase of SDLC?

=> SDLC stands for “software development life cycle”model. It describes the sequence of

phases or steps to develop any software. In simple word “entire life time of software from beginning to ending”

Software development life cycle (SDLC) is the process by which software comes to life. It can very depending on the framework chosen by the team (more on that later), but whatever path you take, the journey from idea to final software in the user’s hands is what we call SDLC. A full SDLC has 7 basic stages: planning, testing, deployment, and maintenance.

It contains three main stages:-

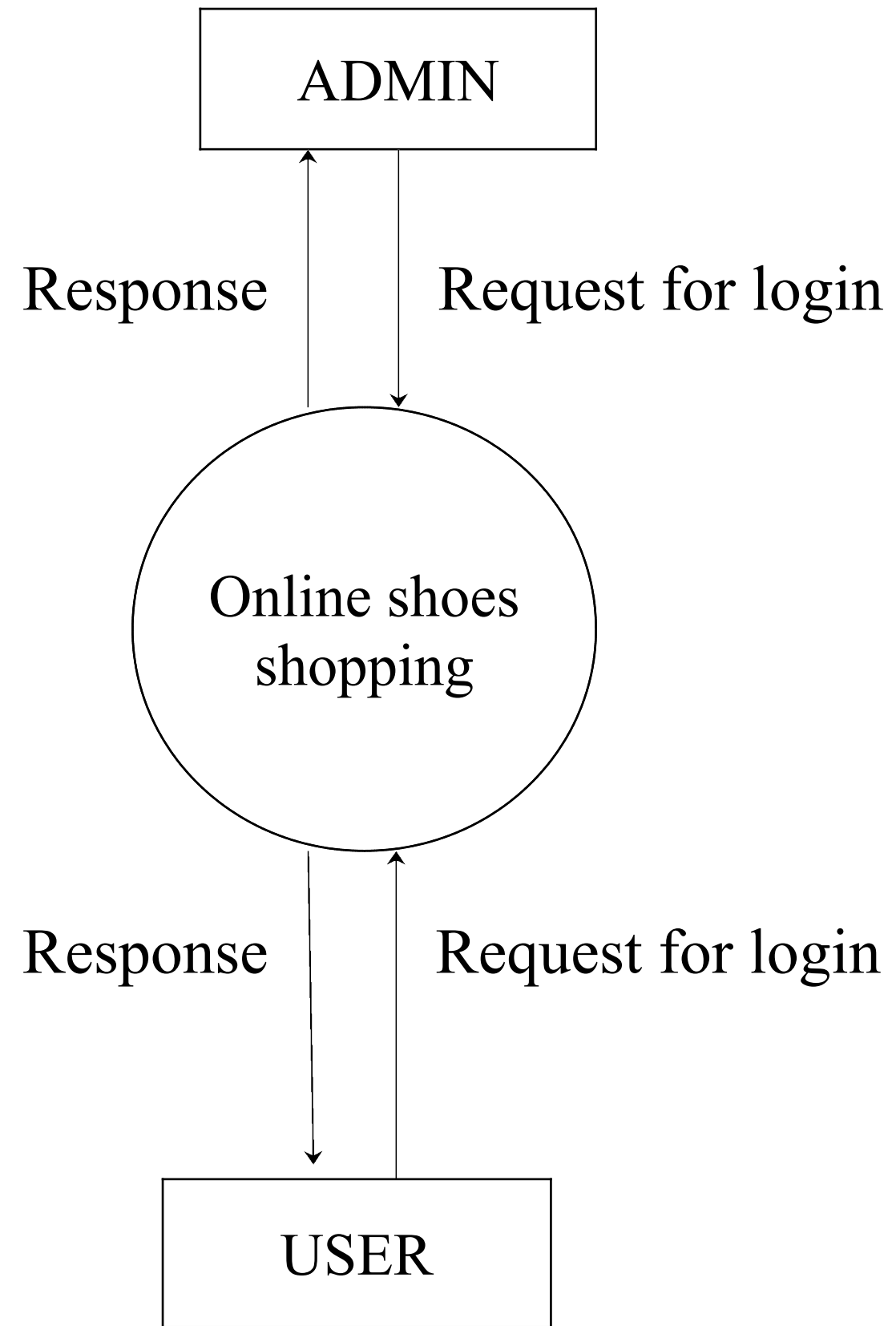
- (a) conception stage
- (b) implementation stage
- (c) maintenance

The SDLC model is classified into three categories based on three advantages

- (a) waterfall model
 - (b) prototype model
 - (c) spiral model
-

4. what is DFD? Create diagram on flipkart?

=> DFD is the abbreviation for data flow diagram. The flow of data in a system or process is represented by a data flow diagram (DFD). it also gives insight into the inputs and outputs of each entity and the process itself. Data flow diagram (DFD) does not have a control flow and no loops or decision rules are present. specific operations, depending on the type of data, can be explained by a flowchart. It is a graphical tool, useful for communicating with users, managers and other personnel. It is useful for analysing existing as well as proposed systems.



* Characteristics of data flow diagram (DFD)

Below are some characteristics of data flow diagram (DFD):

Graphical representation: data flow diagram (DFD) use different symbols and notation to represent data flow within a system. That simplifies the complex model.

Problem analysis : data flow diagram (DFDs) are very useful in understanding a system and can be effectively used during analysis. Data flow diagram (DFDs) are quite general and are not limited to problem analysis for software requirements specification.

Abstraction: data flow diagram provides an abstraction to a complex model i.e. DFD hides unnecessary implementation details and shows only the flow of data and processes within an information system.

Hierarchy : data flow diagram provides a hierarchy of a system. High-level diagram i.e. 0-level diagram like 1-level DFD and beyond provides a detailed data flow of individual processes.

Data flow : the primary objective of data flow diagram is to visualize the data flow between external entities, processes and data stores. Data flow is represented by an arrow symbol.

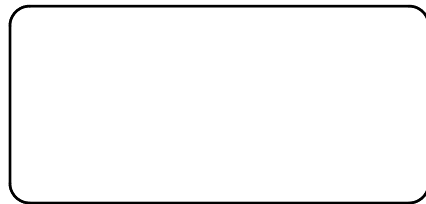
5. What is flow chart? Create a use-case on bill payment on paytm.

=>Flow charts are diagrams showing the exact sequence of logical steps. They use geometrical shapes and arrows to show processes relationships and data/process flow

Flow chart is a graphical representation of an algorithm. Programmers often use it as a program planning tool to solve a problem.

=> Basic symbols used in flowchart designs :

1.



The oval symbol indicates start and stop of the program.

2.



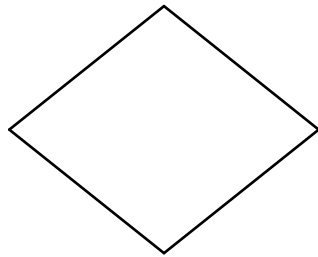
A parallelogram demle input/output tyap

3.



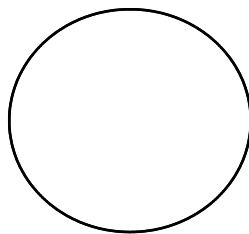
A box represents arithmetic instruction. This symbol mostly use a represent the process.

4.

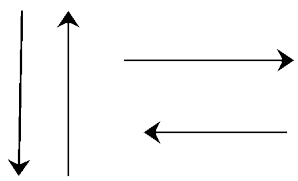


Diamond symbol represent a decision point.

5.

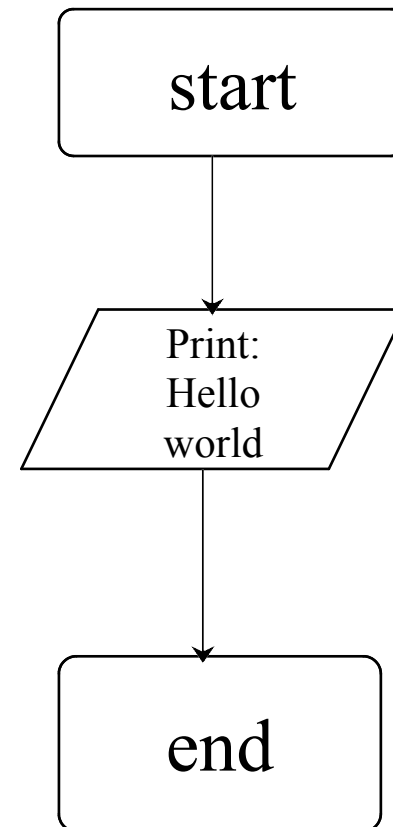


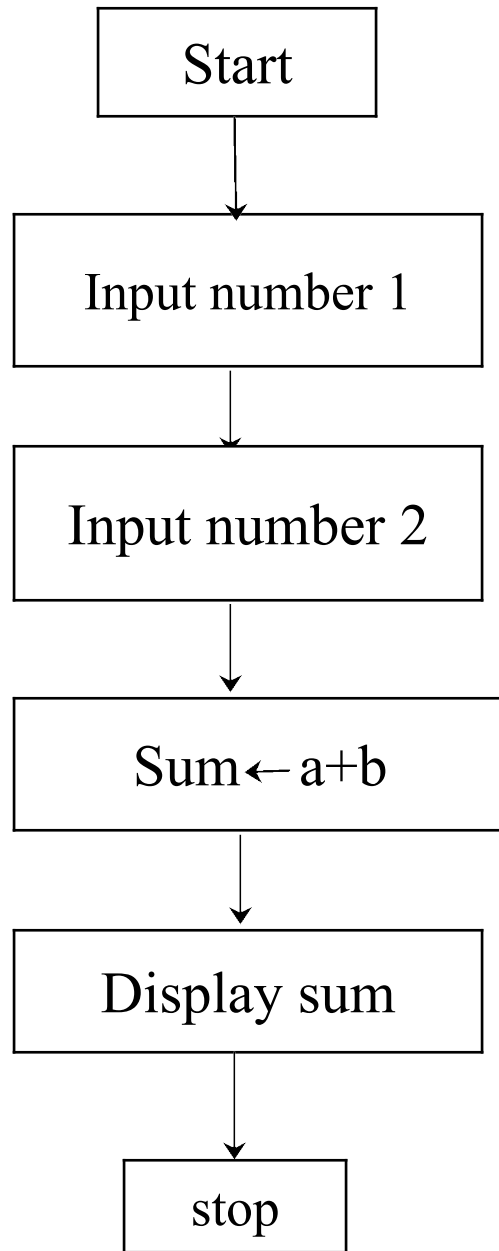
Whenever flowchart becomes complex or it spreads over more than one page, it is useful to use connectors to avoid any confusions.

6. 

Arrows represent the direction of flow of control and relationship among different symbol of flowchart.

Example:





6. what is use diagram? Create a use-case on bill payment on paytm.

=> Use diagrams describe 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 diagram describe what the system does and how the actors use it, but not how the system operates internally.

Use case diagram illustrate and define the context and requirement of either an entire system or the important parts of the system. You can model a complex system with a single use case diagram, or create many use case diagrams to model the components of the system. You would typically develop use case diagrams in the early phases of a project and refer to them throughout the development process.

