

What is software? What is software engineering?

Software is the language of computer. It is a set of instructions, data and programs used to operate computers and execute specific tasks.

Software engineering is the branch of computer science that deals with the design, development, testing and maintenance of software applications.

Explain types of software.

There are 2 types of software.

1. System Software

2. Application Software

1. System software: Electronic devices are useless without this software. There are different types of system software. For example windows, macOS, Android and IOS. It is a computer program that helps the user to run computer hardware or software and manage the interactions between them. It constantly runs in the background.

THE FURTHER CLASSIFICATION OF SYSTEM SOFTWARE ARE FOLLOWING BELOW:

A) Operating System: The operating system is the main example of system software. It is the intermediate between user and system. ex., Microsoft Windows, IOS, Linux, Ubuntu, Unix

B) Device Drivers: It operates or controls some specific hardware devices linked to your system ex., Motherboard Drivers, Printer Drivers, Read Only Memory

2. Application software: Anything that is not operating system or a utility is an app. Types of application software;

A) Mobile app: Application that runs on mobile ex; Instagram, fb, etc;

B) Desktop app: That runs stand-alone in a desktop or laptop computer ex; Microsoft office suite which includes Word, Excel and powerpoint.

C) Web app: That runs on a web browser ex; google.com, facebook.com, etc

3. Programming software: It is the process of designing, writing, testing, debugging and maintaining the source code of computer programs. The purpose of programming is to create a program that exhibits a certain desired behavior.

ex; cpp, html, java, python

What is SDLC.? Explain each phase of SDLC

SDLC: Software Development Life Cycle

A software development life cycle is essentially a series of steps, or phases, that provide a model for the development and life cycle management of an application or piece

There are 7 phases of SDLC.

1. PLANNING: In this phase, developers plan the upcoming project. It helps to define the problem and scope of any existing systems, as well as determine the objectives for their new systems.

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. DESIGN: This phase is necessary for the developers. They will first outline the details for the overall application alongside specific aspects, such as;

user interface, system interface, network and network requirements and database

4. TESTING: Building software is not the end. During the testing stage, developers will go over their software with a fine tooth comb, noting any bugs or defects that need to be tracked, fixed and later retested.

5. IMPLEMENTATION: After testing, the overall design for the software will come together. Different modules or designs will be integrated into the primary source code through developer efforts.

6. MAINTENANCE: The SDLC doesn't end when software reaches the market. Developers must now move into a maintenance mode and begin practicing any activities required to handle issues reported by end-users.

(NOTE: THE EXAMPLES OF DFD, FLOWCHART AND USE CASE DIAGRAM ARE IN BELOW PICTURES)

What is DFD? Create a DFD diagram on flipkart.

A Data Flow Diagram is a traditional way to visualize the information flows within a system. A neat and clear DFD can depict

a good amount of the system requirements graphically. It can be manual, automated, or a combination of both.

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

A flow chart is a graphical or symbolic representation of a process. Each step in the process is represented by a different symbol

and contains a short description of the process step.

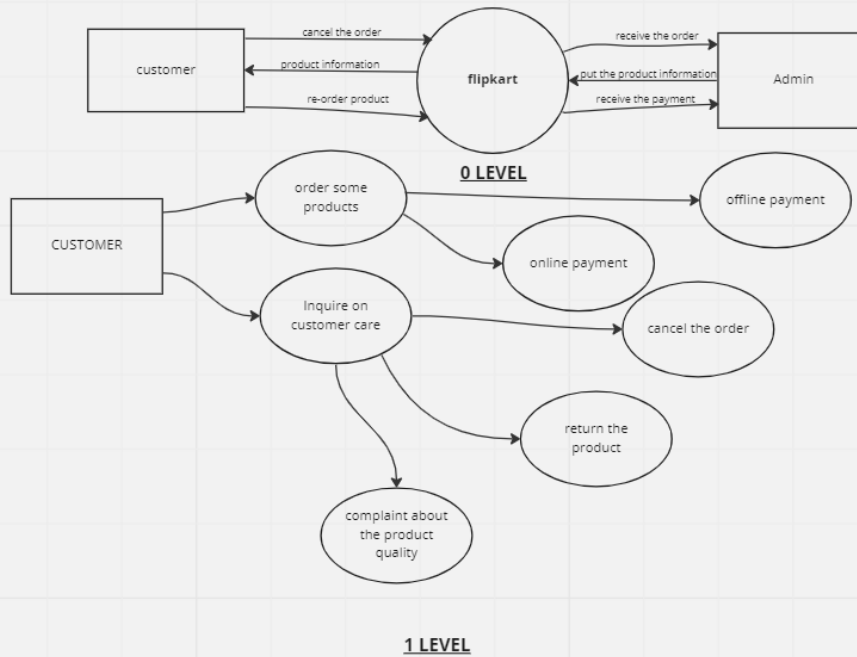
What is a Use case Diagram? Create a use-case on bill payment on paytm.

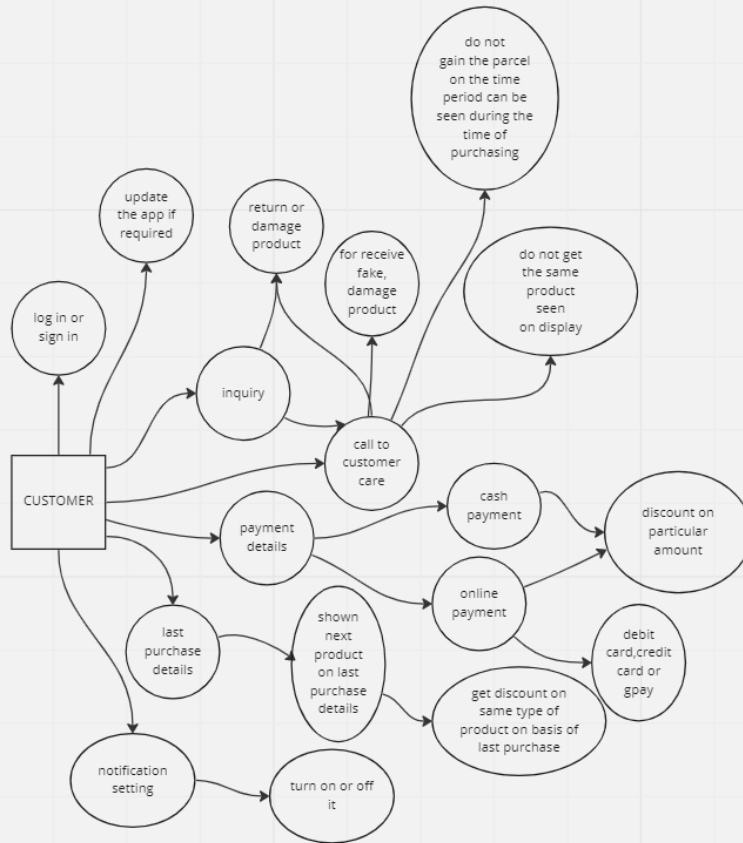
Use-case diagrams describe the high-level functions and scope of a system.

These diagrams also identify the interactions between the system and its actors.

The use cases and actors in use-case diagrams describe what the system does and how the actors use it, but not how the system operates internally.

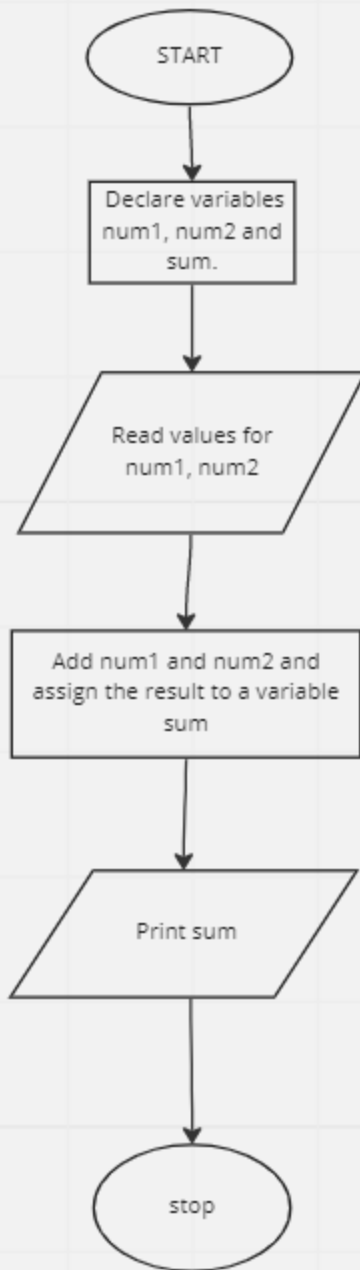
DATA FLOW DIAGRAM ON FLIPKART





2 LEVEL

FLOW CHART ON ADDING TWO NUMBER



use-case on bill payment on paytm.

