MODULE-1 (SDLC)

1.WHAT IS SOFTWARE?

WHAT IS SOFTWARE ENGINEERING?

WHAT IS SOFTWARE?

> Software is also called program.

> It is the language of computer.

> Software is a sate of instaructions, data and information.

> Software instaructions that tell a computer what to do and how to do...

> The main two categories of software are APPLICATION SOFTWARE And SYSTEM

SOFTWARE.

> Other types of software is PROGRAMING SOFTWARE.

WHAT IS SOFTWARE ENGINEERING?

> SOFTWARE: It's a set of instruction.

> ENGINEERIN: Process of desining and building something that make sure

practicular purpose.

> SOFTWARE ENGINEERIN: It's a process of analyzing user requirement and then

designing, building and tasting software application wich will satisfy those

requirements.

> The most populer types of software engineering are FROM-AND-ENGINEER, BACK-AND

ENGINEER, FULL STACK ENGINEER, SOFTWARE ENGINEER IN TEST (Qa engineer),

SECURITY ENGINEER.

2.EXPLAIN TYPES OF SOFTWARE?

TYPES OF SOFTWARE?

> SYSTEM SOFTWARE:or OS APPLICATION SOFTWARE PROGRAMMING SOFTWARE.

> SYSTEM SOFTWARE:System software is a sat of programs that handles all the basic internal working of a computer.

> It executes and controls all the working of different peripheral device.

> It helps to run the computer hardware and system.

EXAMAPLE: Linux, windows, macOS, ANDROID, IOS...

APPLICATION SOFTWARE:

> Application software is also known as end user software or productivity software.

> Application software is the general designation of computer programs for performing user tasks. It si a types

of computer program that performs specific function.

> These functions can be Personal, Business as well as Educational.

TYPES OF APPLICATION SOFTWARE:

> MOBILE

> DESKTOP APP

> WEB APP

MOBILE:-

> Application that run in mobile.

EXAMPLE: Instagram, facebook, etc.

DESKTOP:-

> Application that run only on desktop or laptop computer.

EXAMPLE: Word, exale, powerpoint, outlook, firefox, etc.

WEB APP:-

> Application that run on web browser.

EXAMPLE: facebook, com, google. com, etc.

PROGRAMING SOFTWARE:

> Programing software is a software which helps the programmer in devloping other software.

> It is the process of desining, writing, testing, debugging and maintaining the source code of computer programs.

> Programin software is also known as programming tool or software development tool.

> In short, PS is a program or set of program which helps the software devlopers by assisting them in creating,

debugging and applications.

EXAMPLE: C++, java, python, simlab, php, etc.

3.WHAT IS SDLC?EXPALIN EACH PHASE OF SDLC.

> SDLC:SOFTWARE DEVELOPMENT LIFE CYCLE.

The software development life cycle is a structured process that enables the production of high quality,

low-cost software in the shortest possible production time.

> The goal of the SDLC is to produce higher-level software that meets all customer expectations and demands.

> SDLC provides a well structured flow of phases that help an organization to quickly produce high quality

software which is well tested and ready for production use.

> The SDLC involves six phases of Software Dvelopment.

1 Requirements gathering

2 Analysis

3 Design

4 Implemantation

5 Testing

6 Maintenance

1 REQUIREMENTS GATHERING:

> During this phase, all the relevant information is collected from the customer to develop a product as per

their expectation.

> Business analyst and project manager set up anmeeting with the customer to gather all the information like

what the customer wants to build, what is the purpose of the product.

> Before build a product, knowladge about the product is very important.

2 ANALYSIS:

> This phase defines the problem that the customer is trying to solve.

> The analysis phase defines the requirements of the system.

> The deliverable result at the end of this phase is a requirement document

3 DESIGN:

> The design phase is important precursor to the main developer stage.

> In this phase, the requirement gathered is used as an input.

> The system and software design documents are prepared as per the requirement specification ducument.

> This design phase serves as input for the next phase of the model.

Two kinds of design phase:

High-level design (HLD)

Low-level design (LLD)

4. WHAT IS DFD?CREATE A DFD DIAGRAM ON FLIPKART.

DFD: DATA FLOW DIAGRAM

> A data flow diagram is a traditional way to visualize the information flows within a system. It shows how

information enters and leaves the system, what changes the information and where information is stored.

> The purpose of a DFD is to show the scope and boundaries of a system. it may be used as a communiction tool

between a system analyst and any person who plays a part in the system that acts as the starting point for

redesigning a system.

> It's easy to undrstand the flow of data through system with the right Data flow diagram software. This guide

provides everything you need to know about data flow diagrams, including definitions, history, and symbols.

> it uses defined symbols like rectangles, circles and arrows. DFD does not have control flow and no loops

or decision rules are present. data flow diagrams are very populer because they help us to visualize the major

steps and data involved in software-system processes. Data flow diagrams can be divided into logical and physical.

CUSTOMER

MANAGEMENT

PAYMENT

MANAGEMENT

SHOPPING

MANAGEMENT

SYSTEM USER

MANAGEMENT

LOGIN

MANAGEMENT

ORDER

MANAGEMENT

ZERO LEVLE DFD-FLIPKART

GENERET

SHOPPING REPORT

SHOPPING

MANAGEMENT

GENERET SHOPPING

REPORT

SHOPPING KART

MANAGEMENT

GANERET PRODUCT

REPORT

PRODUCT

MANAGEMENT

GENERET SHIPMENT

REPORT

GE

SHIPMENT

MANAGEMENT

CHECK USER

LOGIN DETAILS

LOGIN

MANAGEMENT

GENERET SYSTEM

USER REPORT

SYSTEM USER

MANAGEMENT

FIRST LEVEL DFD-FLIPKART

MANAGE PRODUCT DETAILS

ADMIN

MANAGE SHOPPING CART DETAILS

MANAGE CUSTOMER DETAILS

MANAGE SHIPMENT DETAILS

MANAGE PAYMENT DETAILS

MANAGE ORDER DETAILS

MANAGE REPORT

MANAGE SYSTEM ADMINS

MANAGE ROLES OF USER

MANAGE USER PERMISSION

SECOND LEVEL DFD-FLIPKART

5. WHAT IS FLOW CHART? CREATE A FLOWCHART TO MAKE ADDITION TWO NUMBERS.

> A diagram of the sequence of movements or actions of people or things involved in a activity.

> A flow chart is a graphical or symbolic representation of a process. Each step in the process

is presented by a different symbol and contains a short description of the process step. The

flow chart symbols are linked together with arrows showing the process flow direction.

> A flowchart is a picture of the separate steps of a process in sequential order.

TYPES OF FLOW CHART:

> Data flow diagram (DFD)

> Process flow diagram (PFD)

> Business process model and notation (BPMN)

> Specification and description language flowchart (SDL)

PROGRAMS CAN BE IN THREE FORMAT:

1.Linear or sequential structure

2.Branching or decision making structure

3.Looping stracture

Take two numbers Num1 and num2

n

Sum=num1+num2

Print

6. WHAT IS USE CASE DIAGRAM?

CTEATE A USE-CASE ON BILL PAYMENT ON PAYTM.

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

> These diagram also identify the interactions between the system and it's actors.

> The use cases and actors in use case diagram describe what the system dose and how the actors use it, but not

how the system operates internally.

> Use-case diagram illustrate and define the requirements of either an entire system or the important parts of

the system.

MANAGE USERS NO FULL

CHECK BILLS

MANAGE BILLS

MAKE PAYMENT

CHECK BILL SUMMARY

MANAGE READING

LOGIN AND LOGOUT FROM SYSTEM

UPDATE MY PROFILE

CHANGE ACCOUNT PASSWORD

COLLECT PAYMENT

MANAGE CONNECTION

CREAT BILL

SEARCH CUSTOMERS

MANAGE CONSUPTION

MANAGE UBITS