Software engineering Assignment

Module: 1

SE-overview of IT industry

Q1::What is software? What is software engineering?

ANS:: The parts of computer that we can't see or touch are called **SOFTWARE.**

Software is a collection of data or set of instruction.

That is used to operate hardware and execute specific task.

Software engineering ::

Software engineering is a technique through which we can developed or created software for computer systems and any other electronic devices.

In other words, software engineering is a process in which user needs are analyzed and software is design based on there needs.

Q-2 Explain types of software

There are 3 types of software.

1 System software

2 Application software

3 Utility software

1. **System Software::**

   System s/w is a software designed to provide a plateform to other software.

   System software control and manage the operations of computer hardware.

   EX :: Operating System (Windows, Android)

2. **Application Software**::
   The software that helps you to do a specific type of work is called application software.
   EX:: MS word , Excel

3. **Utility Software::**

   This software helps to manage, maintain and control computer resources EX:: Antivirus, Backup software.

Q 3 :: What is SDLC? Explain each phases 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 lifetime of s/w from beginning to ending”.

Phases of SDLC ::

1	requirements
2	analysis
3	design
4	implementation
5	Testing
6	Maintenance

1 **Requirement** :

- Establish customer Needs
- Although requirements may be documented in written form, they may be incomplete, or even incorrect requirements will change.

2 **Analysis** :

- The analysis phase defines the requirements of the system, independent of how these requirements will be accomplished.
- Prepare list of requirements & prioritize requirements.
- This analysis represents the “WHAT” & “ HOW” phase.

3 Design :

- The design team can now expand upon the information established in the requirement document.
- UI Designing, Database, Table etc..

4 **Implementation** :

- The implementation phase deals with issue of quality, performance baselines, libraries, and debugging.
- A system can be implemented after tested.

5 **Testing** :

- The testing phase is a separate phase which is performed by a different team after the implementation is complete.
- Simply stated, quality is very important. Many companies have not learned that quality is important and deliver more claimed functionality but a lower quality level.

6 **Maintenance** :

- It is the process of changing a system after it has been deployed.

Corrective maintenance : Identifying and repairing defects.

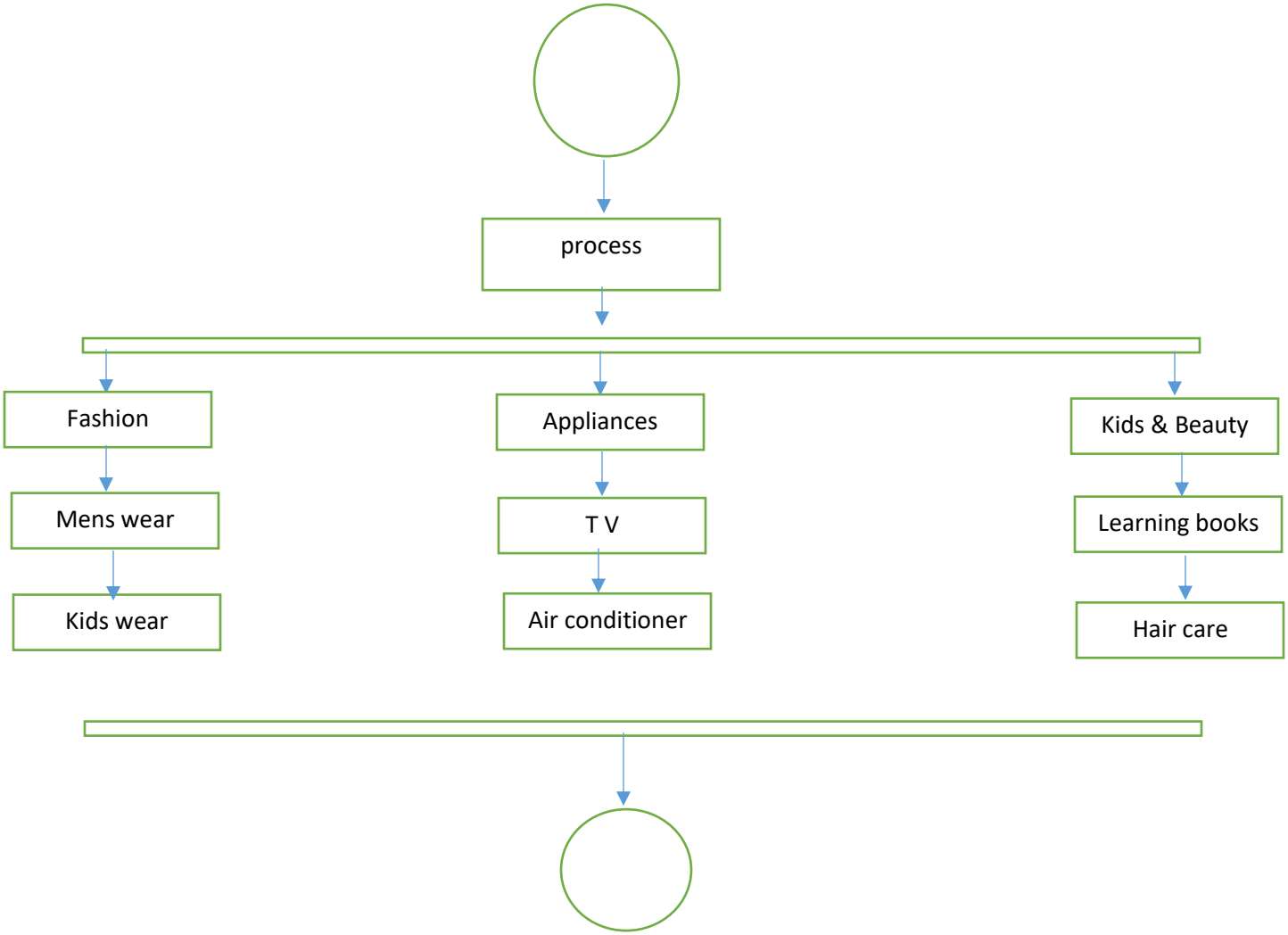
Adaptive maintenance : adapting the existing solution to the new plateform.

Perfective maintenance : implementing the new requirements.s

Q 4::What is DFD? Create a DFD Diagram on Flipkart.

DFD stands for “Data flow diagram ” .

- It is also known as “ BubbleChart ”.
- Through which we can represent the flow of data graphically in an information system.
- By using DFD we can easily understand the overall functionality of system because diagram represents the incoming data flow, outgoing data flow and stored data flow in a graphical mode.



Q5::What is Flowchart? Create a flowchart to make addition of two numbers.

Flowchart diagram showing the extract sequence of logical steps.

- They use geometrical shapes and arrows to show processes, relationships and data/process flow.
- Flowchart is a graphical representation of an algorithm.
- Programmers often use it is a program planning tool to solve a problem.

Basic Symbols used in flowchart Design.

1 The OVAL symbol indicates START and STOP of the program.

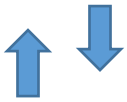
2 A parallelogram represent INPUT/OUTOUT type.

3 A BOX represents arithmetic instruction .This symbol mostly use a represent of process.

4 DIAMOND SYMBOL represent a decision point.

5 Whenever flowchart becomes complex or spreads over more than one

page, CIRCLE symbol usefull to use connector to avoid any confusions.



6 Arrows represents the direction to flow of control and relationship.

FLOWCHART OF 2 ADDTION NUMBER::