SOFTWARE ENGINNERING

MODULE – 1

B.1 What is software?

-> Software is than just a program code. A program is an executable code. Software is used to be collection of executable programming code,associated libraries and documents. Software, when made for a specific requirement is called software product.

B.2 Types of software ?

-> Application software

-> System software

-> Driver software

-> Middle ware

-> Programing software

B.3 What is software development methodology?

-> Software development methodology is a process or series of processes used in software development. Again, quite broad but that it is things like a design phase, a development phase. It is ways of thinking about things like waterfall being a non iterative kind of process. Generally it takes the form of defined phases.

B.4 What is design pattern?

-> Design pattern is a general repeatable solution to a commonly occurring problem in software design. A design pattern isn't a finished design that can be transformed directly into code. It is a description or template for how to solve a problem that be used in many different situations.

Intermediate

(1.) What is the difference between application software and system software?

->**Application software –** Application software is the type of software that runs as per used request. It runs on the platform which is provided by system software. High-level languages are used to write the application software. It's a specific purpose software. The main difference between system software and application

software is that without system software,the system can not run on the other hand without application software, the low-level maintainssystem always runs.

->**System softeware –** System software is the type of software that is the interfase between application software and system. Low-level languagesare used to write the system software. System software maintains the system resources and gives the path for application software to run. An important thing is that without system software, the system can not run. It is a general-purpose software.

(2.) Explain the SDLC Each face process?

-> **SDLC –** The software development life cycle (SDLC) refers to a methodology with clearly defined process for creating high quality software.

1. Requirement gathering

2. Analysis

3. Designing

4. Implementation

5. Testing

6. Maintenance

Requirement gathering – It is performed by the senior members of the team with inputs from the customer, the sales department, market surveys and domain experts in the industry. This information is then used to plan the basic project

approach and to conduct product feasibility study in the economical, operational and technical areas.

Planning for the quality assurance requirements and information of the risks associated with the project is also done in the planning stage.

Analysis – Once the requirements analysis is done the next step is to clearly define and document the product requirements and get them approved from the customer or the market analysis. This is done through an SRS(software requirement specification) document which consists of all the product requirements to be designed and developed during the project life cycle.

Designing – The next phase is about to bring down all the knowledge of requirements, analysis, and design of the last two, like inputs from the customer and requirement gathering.

Implementation – In this phase of SDLC, the actual development begins, and the programming is buils. The implementation of design begins concerning writing code. Developrs have to follow the coding guidelines described by their management and programming tools like compilers, interpreters, debuggers, etc.

Testing – After the code is generated, it is tested against the requirements to make sure that the products are solving the needs addressed andgathered during the requirements stage. During this stage, unit testing, integration testing, system testing, acceptance testing are done.

Maintenance – Once when the client starts using the developed system, then the real issues come up and requirements to be solved from to time.

This procedure where the care is taken for the developed product is known as maintenance.

(3.)   Create the DFD, Flow chart of login process of facebook.com?

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The flowchart contains the following elements:

- **Start** (oval)
- Enter www.facebook.com (parallelogram)
- facebook home page (rectangle)
- Enter username and password (parallelogram)
- is username and password correct (decision diamond)
  - **Yes** → Display account (parallelogram) → **End** (oval)
  - **No** → log in error (rectangle) → back to Enter username and password