Assignment - 01

Q: Write a note on Requirement Elicitation and analysis.

About Requirement Elicitation :-

i) It is a symmetric process of gathering, analysing, and defining stakeholders' needs and expectations for a proposed solution.

ii) It is a critical part of SDLC and typically performed at the beginning of the project.

iii) Requirement elicitation is a symmetric process; involves techniques to uncover, document, and validate requirements, ensuring clarity and alignment among project stakeholders.

iv) This process is communication intensive and benifits from an affective customer - developer partnership.

Key Activities in Requirement Elicitation :

i) Requirement Elicitation includes identifying stakeholders, understanding customer problems, investigating user needs, and defining system development constraints.

ii) Gathering information about the system, the business processes it will support and the end users, project sponsors, and subject-matter experts to understand their needs.

iii) Prioritizing requirements based on their importance to project's success & documenting them clearly.

iv) This process is iterative, continuously refining and updating requirements based on stakeholder's feedback, and requires flexibility to adapt to changing needs and project constraints

* Techniques for Requirement Elicitation:

Various techniques that are required:

① Interviews, ② Workshops, ③ Observations ④ Surveys, ⑤ prototyping, ⑥ document Analysis

① Interviews involve 1-on-1 sessions to gather detailed insights. ② while workshops are group sessions for brainstorming and consensus-building.

③ Observations involves directly watching users or processes to identify requirements, and surveys gather information from a large audience.

④ prototyping creats mock-ups to visualise requirements, and document analysis reviews existing documentation for insights.

* Requirement Analysis Method:

Analysis techniques include product analysis, Process modeling, context diagrams, user stories, story maps, decision tables, data flows diagrams, and state and sequence diagrams.

* Best Practices for Successful Elicitation:

1) for ensuring, engage stakeholders early, maintain open communication, use multiple techniques, document requirements clearly.

2) Avoid assuming needs, relying on one technique, overlooking non-verbal cues.

3) Adapt to changing requirements and stakeholders needs, and ensure that the elicitation process is flexible.

Assignment-02

Q. Explain Requirement Analysis?

1) Requirement Analysis, also known as Requirement engineering, is the process of determining user expectations for a new or modified product.

2) It is a collaborative effort that demands critical thinking, effective communication, and ground judgement to finalize and document the necessary features and functionalities.

3) The primary goals of requirement analysis are to clarify the vision of the new product, understand stakeholders expectations, prevent conflicts during development, and ensure the final product aligns with the specified requirements.

Key Steps in the Analysis Process:

1) Effective requirement analysis offers several key benifits, including a well-defined project scope; more productive discussions among stakeholders, smoother perfect planning, early conflict resolution, reduced miscommunication and rework, and a shared understanding of business goals among team members.

2) A thorough analysis increases the likelihood of delivering a successful product that satisfies end-user expectations and achieves its intended purpose

3) Furthermore, it aids in preventing feature creep and ensures the project remains focused on its core objectives.

* Techniques and Tools Used :

① Various techniques and tools facilitate the requirements analysis process.

② These includes Business Process Model and Notation (BPMN), flowcharts, Gantt charts, and gap analysis

③ BPMN helps standardize graphical representations of processes, while flow charts illustrate relations between activities.

④ Gantt charts aid in projects planning by visualizing tasks and timelines, and gap analysis evaluates a product's performance against it's requirements

⑤ These tools support project teams in effectively analyzing and finalizing requirements