Module 2: Requirements Elicitation

1. What is Elicitation?

   o Process of drawing out latent or implicit knowledge from stakeholders (Module 3 - ReqsElicitat...).

   o Involves making explicit what is known but not clearly stated.

2. Key Players in Elicitation

   o Users: End-users of the software (can also be other systems).

   o Buyers: Those responsible for purchasing the software (may differ from users).

   o Experts: Domain experts who offer specialized knowledge(Module 3 - ReqsElicitat...).

3. Information Sources

   o People (users, buyers, experts), documents, reference works, and informal channels like conversations and forums(Module 3 - ReqsElicitat...).

4. Elicitation Techniques

   o Interviews: Structured/unstructured, rich information, but time-intensive.

   o Group Meetings: Semi-structured workshops, good for consensus building.

   o Storyboarding/Prototyping: Create visual representations for feedback.

   o Questionnaires: Good for reaching a broad audience, but may have poor response rates.

   o Observation (Ethnography): Time-consuming but reveals natural user behavior(Module 3 - ReqsElicitat...)(Module 4 - Requirements...).

   o Joint Application Development (JAD): Collaborative workshops that include multiple stakeholders(Module 3 - ReqsElicitat...).

5. Common Issues in Elicitation

   o "Yes but…": Users continually adding features.

   o "Undiscovered Ruins": New requirements emerging during elicitation.

- o   User-Developer Communication Gaps: Addressed by multiple techniques (Module 3 - ReqsElicitat...).

Module 2: Requirements Analysis

1. Purpose of Requirements Analysis

    - o   Transform "what" (user needs) into "how" (design)(Module 4 - Requirements...).

    - o   Focus on creating a communicative model between stakeholders and developers.

2. Requirements Baseline

    - o   A formalized document (SRS) that states system functionality and constraints(Module 4 - Requirements...).

    - o   Acts as the foundation for the design and implementation phases.

3. Analysis Techniques

    - o   Data Models: ER diagrams, object-oriented analysis to represent data relationships(Module 4 - Requirements...).

    - o   Behavioral Models: Use cases, statecharts, and sequence diagrams to represent system behaviors(Module 4 - Requirements...).

    - o   Flow Models: Data flow diagrams (DFD), process models, and activity diagrams to illustrate functional flows(Module 4 - Requirements...).

4. Architectural Methods

    - o   Top-down approach: Starting from high-level analysis and breaking it down.

    - o   Bottom-up approach: Building solutions to smaller problems and integrating them later(Module 4 - Requirements...).

    - o   Leveraging legacy systems: Incorporating existing components into new designs(Module 4 - Requirements...).

5. Key Concepts

    - o   RUP's 4+1 View Model: Logical view, process view, deployment view, implementation view, and use-case view(Module 4 - Requirements...).

    - o   Multiple analysis models may be required to express different perspectives.

Study Focus:

- Elicitation: Techniques, key players, and common issues.

- Analysis: Transition from requirements to design, various modeling methods, and architectural approaches.