FACULTY OF EGINEERING

SOFTWARE ENGINEERING
LECTURE-06

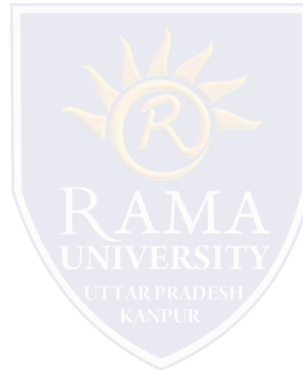## Mr. Dhirendra

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❖**Requirement Engineering**

❖**Requirement Engineering Process**

❖**MCQ**

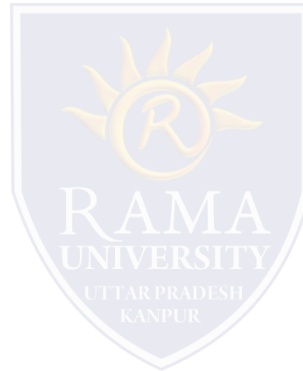❖**References**

Requirement Engineering

Requirements engineering (RE) refers to the process of defining, documenting, and maintaining requirements in the engineering design process. Requirement engineering provides the appropriate mechanism to understand what the customer desires, analyzing the need, and assessing feasibility, negotiating a reasonable solution, specifying the solution clearly, validating the specifications and managing the requirements as they are transformed into a working system. Thus, requirement engineering is the disciplined application of proven principles, methods, tools, and notation to describe a proposed system's intended behavior and its associated constraints.
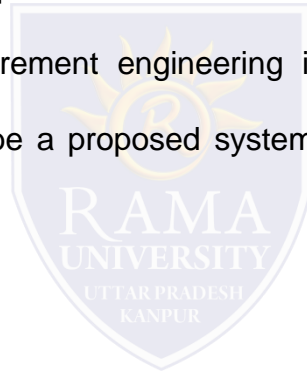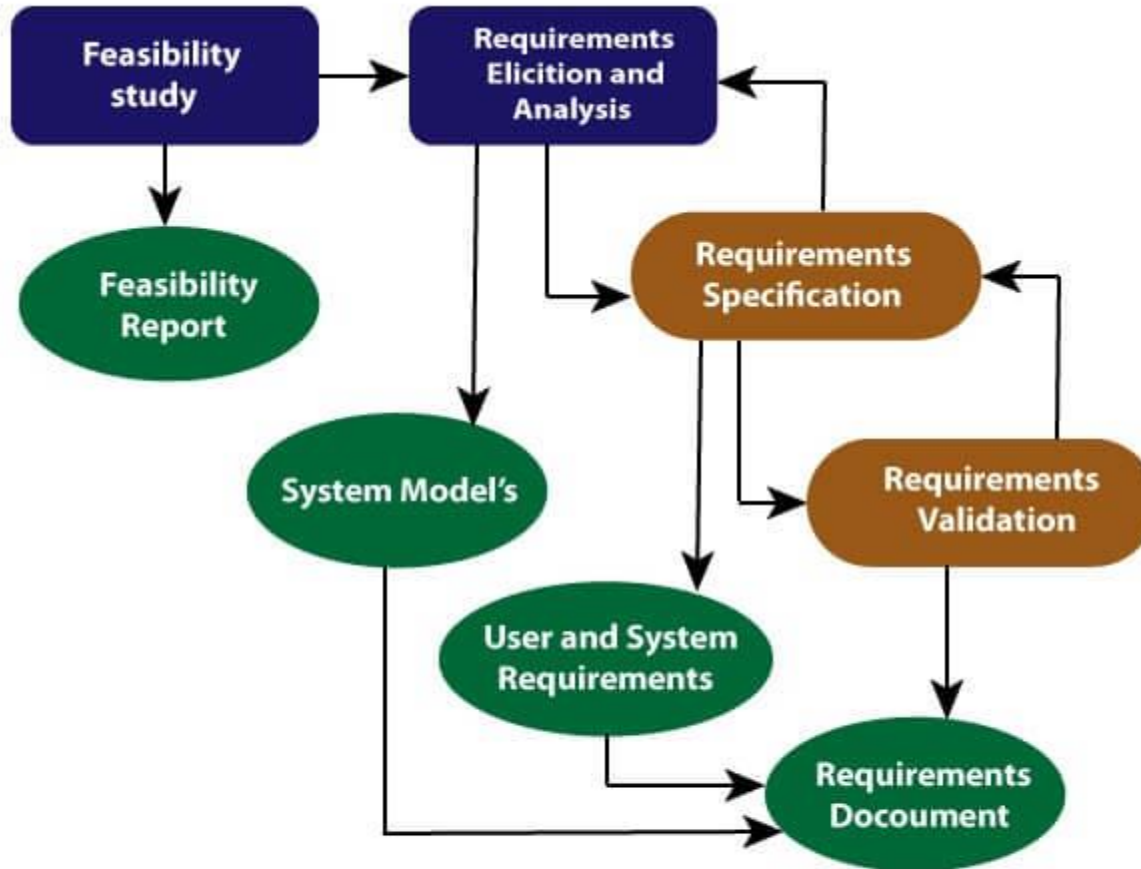
Requirement Engineering Process

It is a four-step process, which includes -

1) Feasibility Study

2) Requirement Elicitation and Analysis

3) Software Requirement Specification

4) Software Requirement Validation

5) Software Requirement Management

Requirement Engineering Process

1. Feasibility Study:

The objective behind the feasibility study is to create the reasons for developing the software that is acceptable to users, flexible to change and conformable to established standards.

Types of Feasibility:

Technical Feasibility - Technical feasibility evaluates the current technologies, which are needed to accomplish customer requirements within the time and budget.

Operational Feasibility - Operational feasibility assesses the range in which the required software performs a series of levels to solve business problems and customer requirements.

Economic Feasibility - Economic feasibility decides whether the necessary software can generate financial profits for an organization.
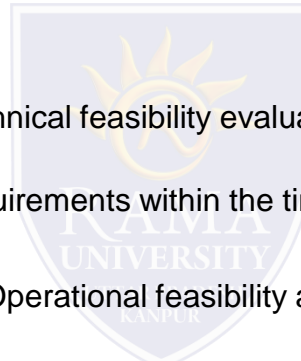
Requirement Elicitation and Analysis:

This is also known as the gathering of requirements. Here, requirements are identified with the help of customers

and existing systems processes, if available.

Analysis of requirements starts with requirement elicitation. The requirements are analyzed to identify

inconsistencies, defects, omission, etc. We describe requirements in terms of relationships and also resolve

conflicts if any.

**1. Which of the following is generally not contained in a feasibility document?**

A). Project Name

B). Problem descriptions

C). Feasible alternative solutions

D). Data Flow Diagrams

2. Which of the following tools is (are) used in modeling the new system?

A). Decision Table

B). Data Flow Diagrams

C). Data dictionary

D). All of these

3. Which of the following tools is not used for process descriptions?

A). Pseudo codes

B). Decision tables

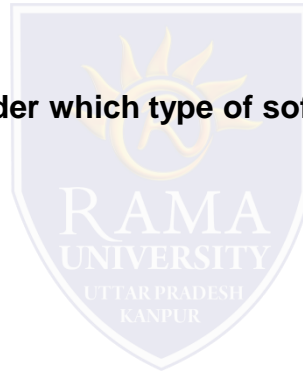**C).** Data Dictionary

D). Structured
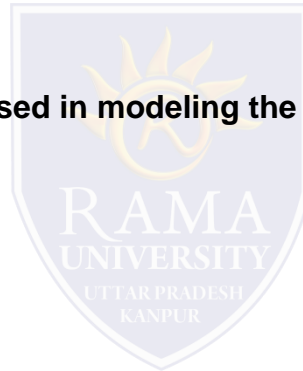
4. What part of documentation offers both a pictorial and written description of system?

A). System's narrative

B). Problem definition

C). System's overview

D). System's abstract

5. Compilers, Editors software come under which type of software?

A). Application software

B). Scientific software

C). System software

D). None of the above

References

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