REQUIREMENT ENGINEERING

BY DR. RUBEENA DOOMUN

LEARNING OBJECTIVES

LO1

Understand the concepts of user and system requirements and why these requirements should be written in different ways.

LO2

Understand the differences between functional and non-functional software requirements.

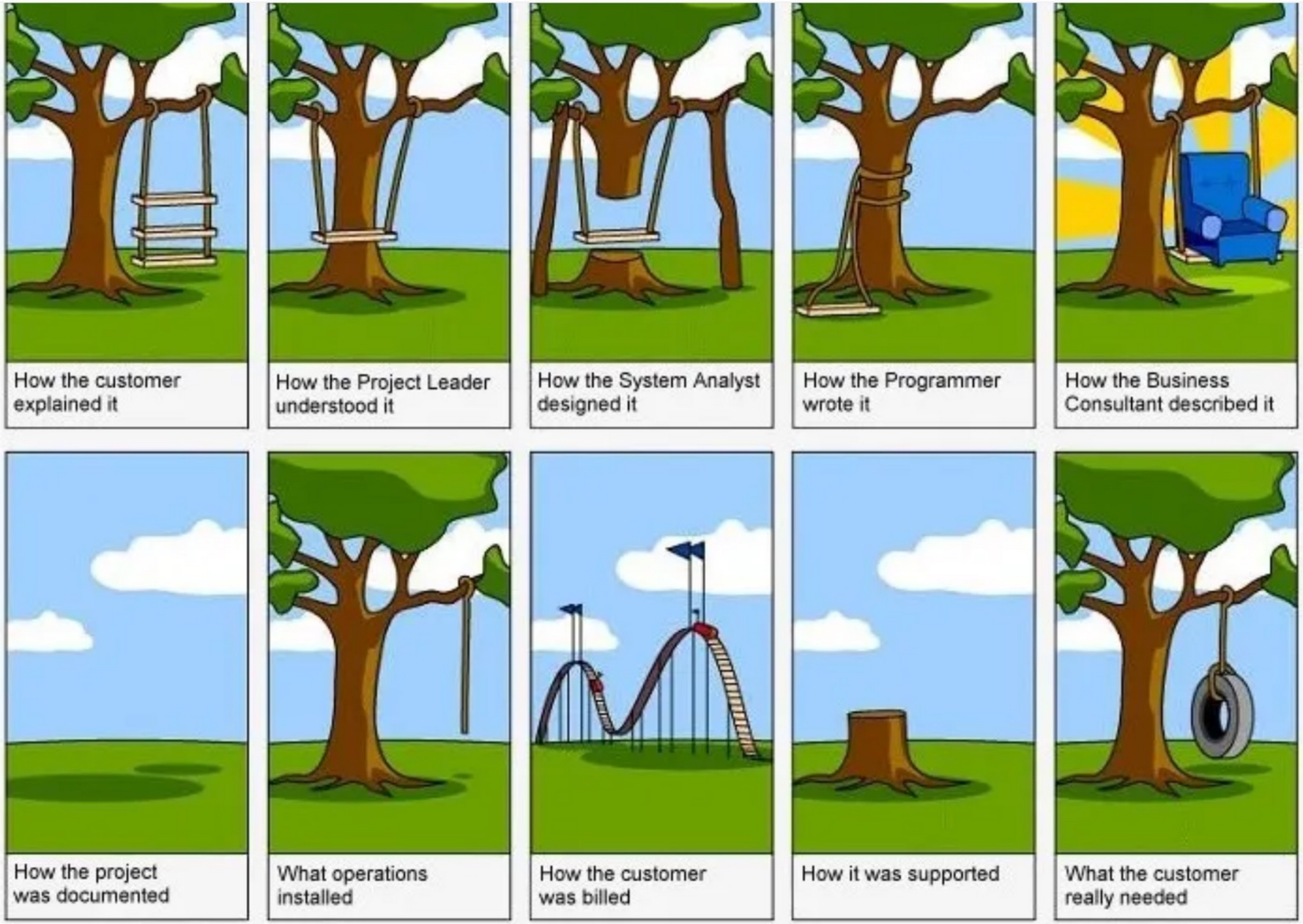
LO3

Understand how requirements may be organised in a software requirements document.

DEFINITION

Understanding and specifying what services are required from the system, as well as determining the limits on the system's functioning and evolution, is the process of requirement engineering.

IMPORTANCE OF REQUIREMENTS



Bad Requirements

Good Requirements

FOUR MAIN ACTIVITIES

FEASIBILITY STUDY

- **User needs are assessed to see if they can be met with current software and hardware solutions.**
- **Cost-effective**

ELICITATION AND ANALYSIS

- Process of determining system needs by looking at current systems and talking to users.
- Creating system models and prototypes.

REQUIREMENTS SPECIFICATION

- **Turning the information acquired during the analysis activity into a document that describes a set of requirements.**

REQUIREMENTS VALIDATION

- **Verifies that all of the standards for realism, consistency, and completeness have been met.**

FUNCTIONAL REQUIREMENT

Functional requirements are statements of the services that the system must provide or are descriptions of how some computations must be carried out.

These are assertions about the services the system should deliver, how it should respond to specific inputs, and how it should behave in specific situations.

SYSTEM REQUIREMENT SPECIFICATION DOCUMENT

Purpose

Definitions, System overview, and background.

Overall Description

Assumptions, constraints, business rules, and product vision.

Specific Requirements

System attributes, functional requirements, and database requirements.

NON-FUNCTIONAL REQUIREMENT

Non-functional requirements is quality attributes that describe ways your product should behave. These include:

- Usability
- Security
- Reliability
- Performance
- Availability
- Scalability

RECAP ACTIVITY

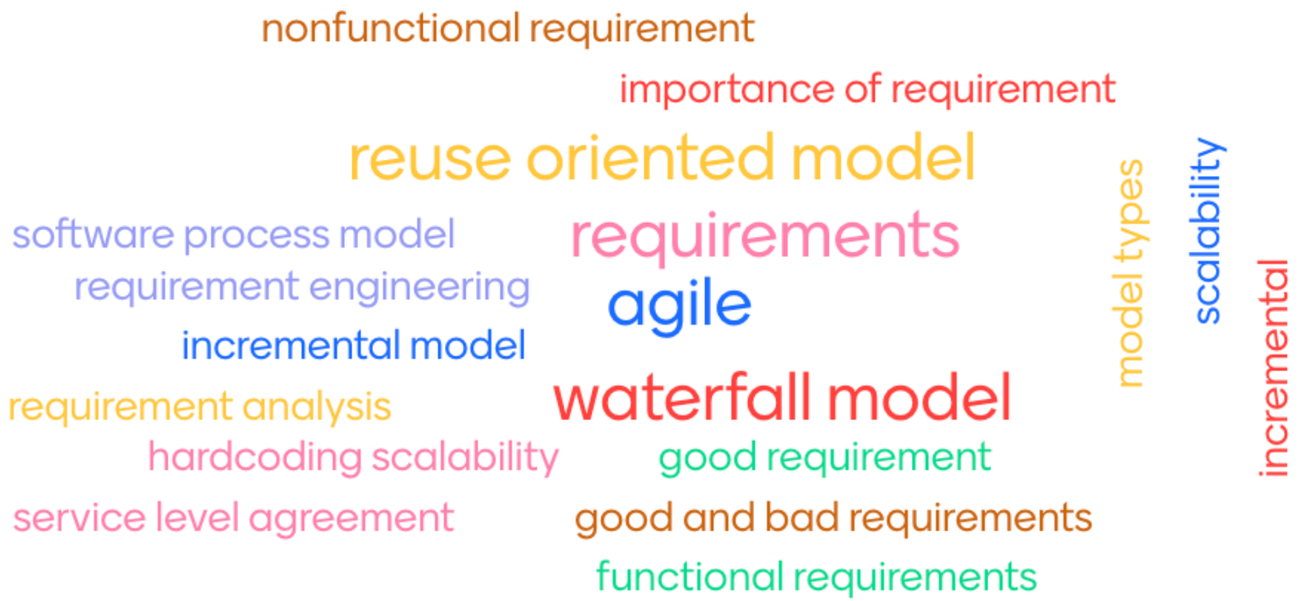
HTTPS://WWW.MENTI.COM/AL5HJZ2XTYXZ

Join at menti.com | use code 3526 7387

Mentimeter

What are the key ideas/words from today's sessions?

22 responses



3 10

THANK YOU!