

10) Requirement Elicitation : Gathering of requirements.

Requirement Analysis: Requirements are analyzed to find inconsistercy, contradictions.

3 Requirement Documentation & End product of Prof 2 steps ceads to.

Preparation of SRS, Coofficial specifications)

· Specocomes foundations for design of s/w.

9) Requirement Koview (or) Reg. verification (or) Validation

To Pemprore the quality. · SRS is shown to

Customer.

> Check for consistency and completegoss.

Desirable Characteréstics of A SRS à

1. consistent

20 correct

3. Complete

9. Understandable

Bases for design & implementation

6. Act as a contract.

7. Modifiable

80 verifiable

9. Traceable.

10. Unambiguous,

(non confusion)

(Requirements ?

- (1) Functional and Non Functional Requirements.
- (2) Usere and System Requirements.
- (3) Interface Specification.

· Functional Requirements o

- > 21 specifies product Features, or services or functionalities.
- > Describe what the system has to do. > What are the expectations from the s/w by the contomer. > What the s/w should not do.
- - eg) features of a gameny six.

· Non-Functional Requirements:

- → Mostly Breakly Requirements. (Specify Quality).

 → Highlights how-well the slw performs its function.
- (9) For user: High performance, reliability, usability.

For developers is Maintainability, Testability, Portability.

- · User Requirements: > are abstract statements of the system.

 - -> written for users who are not experts of sw field.

 -> Highlights the overview of system without design
 - Specifies > functional + non- functional requirements.

Suality External behavior (how the SW Will Interact with the used).

· Whenf to avoid?

Ly Complex language,

La Destan details

1> Technical terms and values.

· System Requirements:

4 Derived from user requirements or expanded from of user requirements.

Ly used as Enpht 16 designers \$5 so that they can preparce Software Design Document (SDD).

-> are the more detailed description of the functionality to be provided.

· Interface Specification:

4) Application Programming, Interfaces (API) are specified in SRS.

4 what kind of interfaces customers desires.

Jean belily Studies

-> Determines if the project is workable or not.

-> Work Product: Feasibily Report.

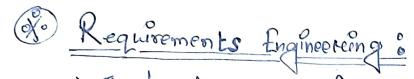
-> resels -> 9t helps the management / project team / Cevotomer to declade if the sw should be built. When factors are considered ?

- to Contreent Practices vs Proposed System.
- 20 Amount of resources needed.
- 30 Mafor visks that can occur.
- 40 Cost and schedule.
- 5. Technical Skill required.

Benifits of Feesibility Study's

1. 10% failure vs 80° pfailure.

2. More accureale esfimales can be prepared.



- > The broad spectrum of tasks and techniques that lead to an understanding of requirements is called requirements acled require-
- > Requirements engineering builds a bridge to design and construction.

But where closs the bridge originate?

One could argue that it begins at the feet of the project stakeholders (e.g., managers customers, and end-cusers), where business need is defined, user scenarios are described, functions and features are delineated, and project constraints aree Palenti fied.

Requirements engineering encompasses seven distinct

1) Inception: > cenders tand the problem.
> Define the nature & scope of the problem.

- 2) Elicotation: > Software team by to understand from the stake holders or clients what are then require monts.
 - -> theo problems arise:
 - (1) Problems of scope -> I'll-defined of requirements by the clients.
 - (2) Problems of understanding > Clients closs not have domain knowledge or no clear Polea.

- (3) volatility: Clients or Hakeholders requirements changes over the time.
- 3) Elaboration: > Toying to develop Refined Requirement
 Model based on the Enformation Collected
 from the Inception of Elicitation steps.
 - > 2t is toging to Tidentify the various aspects of system of system behaviour and Information
 - Trying to create, refine the user scenarios
 that is they are trying to describe how the
 end-user is going to interact with the
 system.
 - (4) Negotiation: > Elimination of unrealistic requirements.
 - > Alter or modify the requirements.
 - > Create norn-noin solution for the sadisfaction of all the stakeholders.
 - > Negotiation task is done when there occurs conflict of requirements among stakeholders.
 - (5) Specification: > specify all the requirements in the form of written document, graphical model, model, prototype.
 - > Flexibility > specification wasy with different projects.

- (6) Validation : > check for inconsistency, ambiguily, error, conflicting requirements etc. to meet customer expectations.
- (7) Requirements: >> 24 & toying to monitor, track, control.

 Management

 the requirements and the changes to

 the requirements at any time as the

 project proceed.