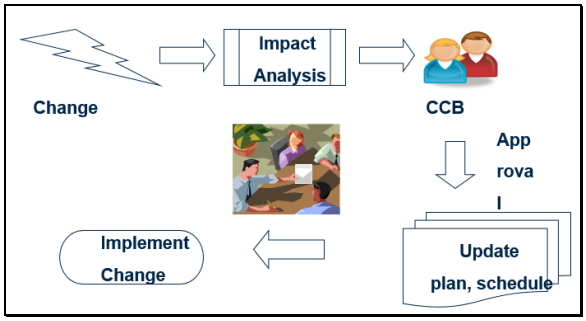
Change Management

What is Change Management Process?

The "Change Management" process is the sequence of steps or activities that a change management team or project leader would follow to apply change management to a project or change.
A change management process consists of number of predefined processes and standards to be followed to manage changes to the system requirements.



A typical change management process is illustrated here and explained further.
There are six main activities, which jointly form the change management process. They are: Identify potential change, Analyze change request, Evaluate change, Plan change, Implement change and Review and close change.

1. **Identify potential change:** The change in requirements is identified. Sateholders submit proposals for requirement changes.

2. **Analyze change request:** The proposed changes are analyzed. This includes how many other requirements and system components are affected by the change.

3. **Evaluate Change:** On the basis of change request analysis, the Change Control Board (CCB) decides whether to implement or not the change.

4. **Plan Change:** The change management team must develop a plan for successful implementation of the change. A key part of the change control process is to carry out an impact analysis of the proposed new or modified requirement. The impact analysis involves estimating the time, effort and cost of implementing the change and any other requirements that are affected by the change are also considered.

5. **Implement Change:** The change is implemented. The information about the new change implementation is then passed on to all of the people involved in the process and the ones affected by the change.

6. **Review and close changes:** The implementation team must determine the success of the change based on execution of the post implementation test plan and success criteria

identified in the Change Request. If the change was not completed successfully as planned or is incomplete, the implementer must determine if the change should be reversed. The change will be closed off if the changes are successfully implemented.

What is Requirement Creep?

Requirement creep in project management refers to uncontrolled changes in the requirement during product development beyond those originally foreseen, leading to features that weren't originally planned and resulting risk to product quality or schedule

What does requirement creep occur?

Lack of change control: You can expect requirement creep in most projects, therefore it is important to design a process to manage these changes **Gold Plating:** This term is given to the practice of exceeding the scope of a project in the belief that a value is being added **Unwillingness to say no to a client:** The project team's or an individual's desire to please the customer and reluctance to say "no" can also lead to requirement creep. **One little change won't matter:** There can be a situation when customers ask for a change, if proper and required impact analysis of the change is not performed then it can give a false impression of change being manageable which can fit into current schedule and cost	**Poor requirement analysis***: The customers are not sure enough about what they want from the system and they end up stating vague requirements.* **Not involving customers early though:** *This refers to having false confidence that you know exactly what the customers expect from the system.* **Insufficient detailing on the complexity of the project:** Many projects runs into problems because they are executed for the first time and there is no enough detailed information available on what to expect from the project and how to implement the same in a standard manner.

What are the measures to control Requirement creep?

1. The best way to minimize scope creep is to define the requirements up front as thoroughly as possible
2. Utilize different techniques such as prototyping and joint application development (JAD) sessions, to thoroughly explore and define the business and technical requirements
3. Achievable goals should be set
4. Prioritize requirements into must-haves versus nice-to-haves
5. Project managers have to learn when to say no and when to say yes
6. When the client wants to change or add a requirement, the change or addition should be analyzed for resource, cost, and schedule impacts
7. Perform constant internal review to make sure the project is on track and within scope
8. Set a timeline or due date for all tasks

What is Requirement Metrics?

Software quality during requirement engineering process can be maintained through requirement metrics.

Requirements metrics are important part of measuring software that is being developed and can be used in Requirement Development and Requirement Management Process:

Process	Sub Process	Objective	Metrics
Requirements Development	Elicitation	1. Minimize the scope creep 2. Increase requirements stability	1. Requirements Creep Index (RCI) 2. Requirements Stability Index (RSI)
	Elicitation	1. Increase requirements elicitation	1. Elicitation Efficiency (EEI)
Requirements Management	Query Resolution	1. Increase query resolution 2. Decrease time for closing a query	1. Query Resolution Index (QRI) 2. Average Query Turnaround Time (QTAT)