Topics: Software risk, risk managements, risk managements activities, project planning.

What is Risk?

"Tomorrow problems are today's risk." Hence, a clear definition of a "risk" is a problem that could cause some loss or threaten the progress of the project, but which has not happened yet.
These potential issues might harm cost, schedule or technical success of the project and the quality of our software device, or project team morale.

Risk Management:

Risk Management is the system of identifying addressing and eliminating these problems before they can damage the project.

A software project can be concerned with a large variety of risks. In order to be adept to systematically identify the significant risks which might affect a software project, it is essential to classify risks into different classes. The project manager can then check which risks from each class are relevant to the project.
There are three main classifications of risks which can affect a software project:

1. Project risks
2. Technical/product risks
3. Business risks

1. Project risks: Project risks concern differ forms of budgetary, schedule, resource, and customer-related problems. A vital project risk is schedule slippage. Since the software is intangible, it is very tough to monitor and control a software project. It is very tough to control something which cannot be identified.

2. Technical/product risks: Technical risks concern potential method, implementation, interfacing, testing, and maintenance issue. It also consists of an ambiguous specification, incomplete specification, changing specification, technical uncertainty, and technical obsolescence. Most technical risks appear due to the development team's insufficient knowledge about the project.

3. Business risks: This type of risks contain risks of building an excellent product that no one need, losing budgetary commitments, etc.

Principle of Risk Management:

Global Perspective: In this, we review the bigger system description, design, and implementation. We look at the chance and the impact the risk is going to have.
Take a forward-looking view: Consider the threat which may appear in the future and create future plans for directing the next events.
Open Communication: This is to allow the free flow of communications between the client and the team members so that they have certainty about the risks.
Integrated management: In this method risk management is made an integral part of project management.

Continuous process: In this phase, the risks are tracked continuously throughout the risk management paradigm.

Risk Management Activities:

The hierarchy of Risk Management Activities are given below:

Project Scheduling:

Project-task scheduling is a significant project planning activity. It comprises deciding which functions would be taken up when. To schedule the project plan, a software project manager wants to do the following:

- Identify all the functions required to complete the project.
- Break down large functions into small activities.
- Determine the dependency among various activities.
- Establish the most likely size for the time duration required to complete the activities.
- Allocate resources to activities.
- Plan the beginning and ending dates for different activities.
- Determine the critical path. A critical way is the group of activities that decide the duration of the project.