

# RISK MANAGEMENT

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**PREPARED FOR**

Engineering Students

All Engineering College

*(SPM)*

***PREPARED BY: MS. SHWETA TIWARI***

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# RISK MANAGEMENT

- **RIKS:** Risks are uncertain future events of a task or project that have the potential to cause harm,
- i.e. a problem that is not present, but may or may not occur in the future.
- **Risk Management:** Risk management is a process of reducing these possibilities of future loss, which includes identifying, analyzing and eliminating the problems that arise,
- so that the ongoing work or project due to those problems can be in some way. could not be harmed.
- It can also be called a type of preparation, by which impending threats are identified, assessed, and controlled.

# RISK MANAGEMENT: SOFTWARE RISK

## What is Software Risk

- The field of software development is full of risk and uncertainty.
- This is an area where work is often done on the latest technologies, which requires a high level of knowledge, and this is the reason, nothing is certain in software development projects.
- Software risk is the possibility of loss occurring in the software development process.
- Software risk can be viewed as an event that can compromise the success of a software development project.

# RISK MANAGEMENT: RISK-TYPES

There are two types of risk here,

- **Internal Risk**, that is, the risk that can be handled by the Project Manager within the company,
  - for example, such as a risk related to a technical problem, or related to increasing staff, etc.
- **External risk**, means that which is beyond the control of the Development Team or Project Manager,
  - such as lack of funds, new changes in Rule Regulation, etc.

# RISK MANAGEMENT: RISK-TYPES

- Apart from this, many types of risks are involved, such as increase in production cost, software development as expected, non-completion of work on time, etc.
- Which may arise at any time to the development team or project manager.

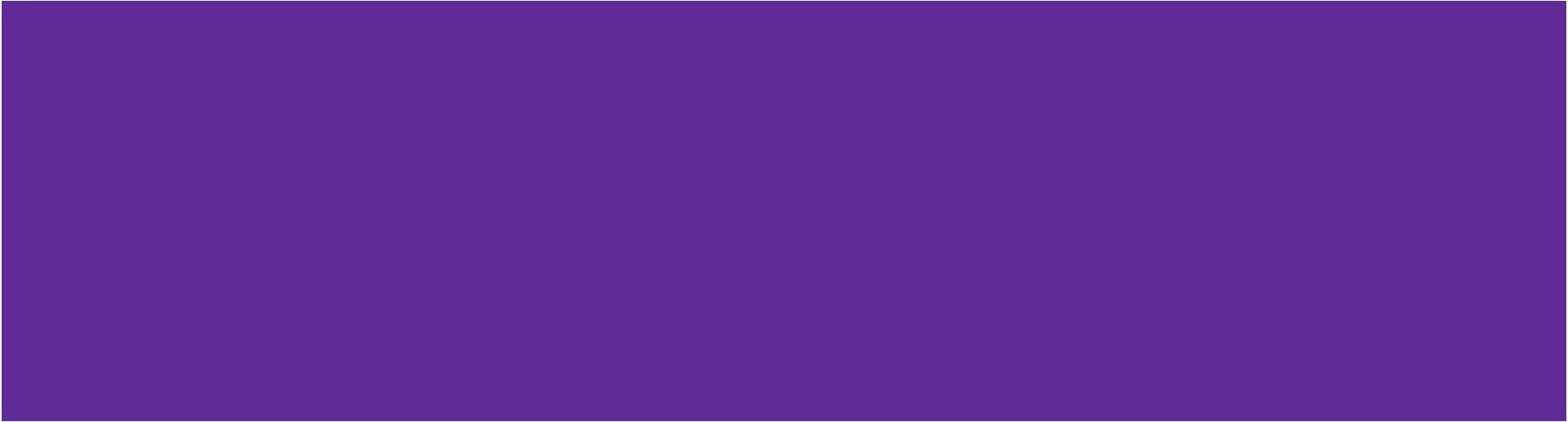
# **Software Risk Management**



# SOFTWARE RISK MANAGEMENT

- Risk management in software engineering can be seen as a process by which risk factors arising in the lifecycle of a software development process or project can be identified, Analyzed, monitored, and It can be handled.
- Simply put, it is a process in which it is estimated in advance what problems may arise in a software project,
  - ❖ how It can be detected, and how those problems can be solved.
  - ❖ This can be done, so that the project remains in its track,
  - ❖ And there should be no dams in the project.

# **SOFTWARE RISK MANAGEMENT: RISK-TYPES**





# SOFTWARE RISK MANAGEMENT: RISK-TYPES

❖ The following are the types of risks that arise in the software development process.

## 1. Schedule Risk:-

- If the schedule related risk is not properly taken care of,
- it has a negative impact on the development and delivery of the project.
- Running behind the schedule of development work has a profound effect on the delivery of the project,
- and it can also lead to project failure.

❑ There can be the following reasons for Schedule Risk.

- If the time is not estimated correctly.
- If your resources like Staff, Skills, Systems or Team are not tracked properly.
- Change in software functionalities or add new functions at the last minute.
- Suddenly the project should be expanded.

# SOFTWARE RISK MANAGEMENT: RISK-TYPES

❖ The following are the types of risks that arise in the software development process.

## 2. Budget Risk:-

- An important part of the success of any project is its budget.
- If the project budget is not managed properly or the budget increases in the middle of the project which has not been assessed before,
- then this also causes project failure.
- For this it is necessary that there should be proper distribution and management of finance.

☐ Budget risk can be due to the following reasons.

- The budget was not estimated correctly.
- The project should be expanded without planning.
- Increase in cost.

# SOFTWARE RISK MANAGEMENT: RISK-TYPES

❖ The following are the types of risks that arise in the software development process.

## 3. Operational Risk:-

- Operational Risk refers to the day-to-day risks during the work progress, which arise due to wrong process implementation.

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❑ Operational risk can be due to the following reasons.

- The vision of the team is not clear.
- Lack of proper training.
- Not planning properly
- Lack of skilled employees.
- Lack of sense of responsibilities related to work.
- Lack of communication between the team.

# SOFTWARE RISK MANAGEMENT: RISK-TYPES

❖ The following are the types of risks that arise in the software development process.

## 4. Technical Risk: -

- Technical risk arises when the product's functionality is not working properly or there is a decrease in its performance.

❑ Technical risk can be due to the following reasons.

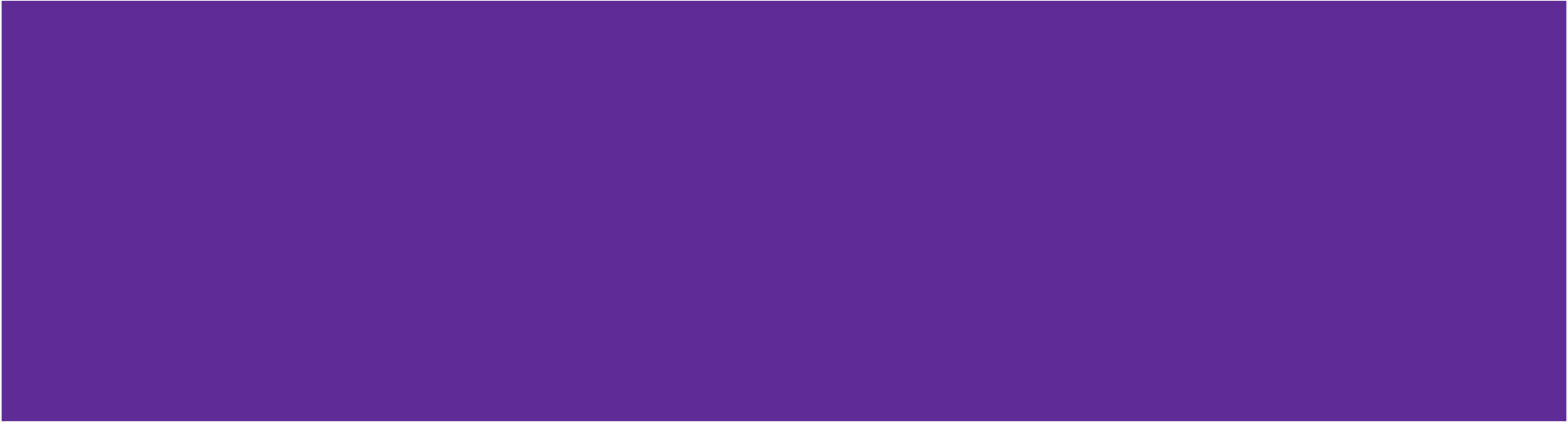
- Frequent changes in requirements.
- Shortage of skilled workforce.
- Complexity in project implementation.
- Not having proper integration of modules.

# RISK MANAGEMENT: RISK-TYPES

## ❖ External Risk:-

- These are external unforeseen risks, in which the project manager has no control. External risks cannot be controlled, nor can they be predicted by any organization or project manager.
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- ❏ External risk can be due to the following reasons.
    - In case of shortage of funds.
    - When the market changes.
    - Changes in government rules.

# **Risk Management: PRINCIPLE**



# RISK MANAGEMENT: PRINCIPLE

## 1. Global Perspective:-

- In this, we review the description, design, and implementation of large systems.
- We see the chance of risk in it and also see the effect it will have.

## 2. Forward looking view:-

- In this, the risk (hazard) is considered which may happen in future.
- And future plans are made for the upcoming events.

# RISK MANAGEMENT: PRINCIPLE

## 3. Open communication:-

It allows communication between client and team members so that they are sure about the risks.

## 4. Integrated management:-

In this method risk management is made an integral part of project management.

## 5. Continuous Process:-

In this phase, the risks are tracked continuously.