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 risks
3. Business risks

**1. Project risks:** Project risks concern differ forms of budgetary, schedule, personnel, 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

**2. Technical 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 or personnel commitments, etc.

**Other risk categories**

**Known risks:** Those risks that can be uncovered after careful assessment of the project program, the business and technical environment in which the plan is being developed, and more reliable data sources (e.g., unrealistic delivery date)

**Predictable risks:** Those risks that are hypothesized from previous project experience (e.g., past turnover)

**Unpredictable risks:** Those risks that can and do occur, but are extremely tough to identify in advance.

## Why Manage Risk?

Organizations must manage risk to:

* Increase their chance of success.
* Prevent potential losses.
* Decrease the magnitude of a loss.
* Support effective use of their resources.
* Promote continuous improvement.
* Reduce the number of unwelcome surprises.
* Quickly grasp new opportunities.
* Reassure stakeholders.

<https://www.javatpoint.com/software-engineering-risk-management-activities>