# **(P2) Risk Management**

* The development of software is an activity which employs a range of advances in technology and needs high knowledge levels. Each software development project has aspects of uncertainty due to these and other factors. This is referred to as project risk. The success of a software development project largely depends on the risk associated with each project activity. It's not enough to be only aware of the hazards as a project manager. Project leadership should identify, evaluate, provide priority, and manage all key risks to ensure a successful end.
* Five Types of Risk:

1. **Lack of human resources:** The human resources department is an important element of any project. This department oversees the administrative activities of an organization. As such, it has a significant effect on all levels of the company. The company can face serious legal, financial and productivity problems without effective human resource management. Ultimately, these problems can lead to the downfall of the project.
2. **User and functional requirements: The software needs capture all user needs for software system capabilities, features, and service quality. Too many of them are long, laborious, and difficult in defining criteria. In addition, exploration, prototyping and integration processes typically modify requirements. Changes to the basic requirements are likely to be replicated throughout the whole project and user requirements may not be modified. These interruptions often lead to a major breakdown of an unplanned software project.**
3. **Performance: Every risk management plan should cover user and partner performance objectives. To guarantee that work products go in the correct direction, benchmarks and threshold testing must be considered over the whole project.**
4. **Organizational:** Project results might be unfavorable to organizational difficulties. Project management must prepare for effective project implementation and strike a balance between the development team's demands and client expectations. Adequate personnel naturally comprise team members with skills that complement the project well.
5. **New, unproven technologies:** Most software initiatives include the use of new technology. The overall risk to technology in virus of any major software engineering endeavor is increased by the ever-changing tools, methodologies, protocols, standards, and development platforms. Training and expertise are important, and the misuse of new technology leads to project failure most frequently.
6. **Time Management:** The risk of the project being delayed is extremely likely. If the participants in the project do not start to execute their work immediately, the completion plan will not be completed and the outcomes will be unforeseen.

## RISK MANAGEMENT MATRIX

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| **NAME** |  | | | | **OBJECTIVE** |  | | | | |
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| **REF / ID** | **P R E - M I T I G A T I O N** | | | | **DEPARTMENT / LOCATION** | **MITIGATIONS / WARNINGS / REMEDIES** | **P O S T - M I T I G A T I O N** | | | |
| **RISK** | **RISK SEVERITY** | **RISK LIKELIHOOD** | **RISK LEVEL** | **RISK SEVERITY** | **RISK LIKELIHOOD** | **RISK LEVEL** | **ACCEPTABLE TO PROCEED?** |
|  |  | – ACCEPTABLE  – TOLERABLE  – UNDESIRABLE  – INTOLERABLE | – IMPROBABLE  – POSSIBLE  – PROBABLE | **– LOW**  **– MEDIUM**  **– HIGH**  **– EXTREME** |  |  | – ACCEPTABLE  – TOLERABLE  – UNDESIRABLE  – INTOLERABLE | – IMPROBABLE  – POSSIBLE  – PROBABLE | **– LOW**  **– MEDIUM**  **– HIGH**  **– EXTREME** | **YES / NO** |
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