

CoSpace	Version: 1.0
Risk Management Report	Date: 26/05/2021

CoSpace

Risk Management Report

1 Introduction

This document describes the risks¹, their importance and possible impacts along with mitigation strategies. This elaboration of risks and planning measures to prevent unwanted circumstances or minimize their negative impacts is crucial for the success of the project.

Overview of the Document

The *Risk Management Report* is composed of 3 sections and one supplementary material, *Risk List* document. In the second section, descriptions of the potential risks and the contents of the *Risk List* document are detailed. In the third section, the logs of the risks we faced during the development process are recorded. Both of these lists are updated throughout the lifecycle of the project.

2 Description

In this section, overviews of the potential risks involved are listed. More detailed and elaborated versions of these potential risks are listed in the *Risk List* document. Descriptions of the concepts and notations used in the *Risk List* document is also provided. All of these lists need to be updated as new potential risks are seen throughout the lifecycle of the project.

Overviews of the Potential Risks Involved

Potential Risk	Mitigation Strategy
One or more of the requirements of the software are wrongly understood.	Establish effective communication links between stakeholders and customers. Ensure both sides understood the same objective. Request feedback on the our understanding, frequently.
One or more members of the development team are sick.	Rearrange the tasks and team to minimize the impact of the absence of the team member.
One or more members of the development team has left the group before the completion of the project.	Rearrange the tasks and team to minimize the impact of the absence of the team member. Inform the stakeholders about the situation.
The technical skills required for a development task is underestimated.	Increase the collaboration and information sharing between team members. Use techniques like extreme programming and pair programming.
The time required for the completion of the software is underestimated.	Inform the stakeholders about the situation, increase efforts to develop the project, and demand extensions to deadlines if necessary.
One or more requirements of the project are changed after they've been implemented.	Inform the stakeholders about the potential delays and the impact of the changed requirement.

¹ A risk is any uncertain & adverse circumstance that may hinder the software engineering process and may threaten the success of the project.

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The time required for a delivery artifact is underestimated.	Establish effective communication between team members to reduce the possibility of underestimation of time required to prepare the artifact. Inform the stakeholders about the situation and demand extensions to deadlines if necessary.
A serious software defect is discovered shortly before the delivery of the software.	Conduct effective unit tests and integration tests to reduce the possibility of unseen defects in the software. If it is too late, inform the stakeholders about the situation.
A development task assigned to a member of the development team is wrongly understood by the team member.	Ensure strong and effective communication between the team members.
A development task is taking too much time to complete.	Use techniques such as extreme programming and pair programming to reduce the time required to complete the task. Reassign work items to other team members if necessary.
A development task is blocking another development task to be completed.	Inform the team member responsible for the task and use programming techniques such as pair programming to reduce the impact of the situation.

Concepts and Notations in Risk List Document

Below are the descriptions of the risk item attributes in the *Risk List* document.

Concept	Definition
Headline	The short description of the potential risk.
Description	Detailed description of the potential risk and its possible impact on the successful completion of the project.
Type	The types of the risks involved. We grouped risks into following types: <ol style="list-style-type: none"> 1. <i>Direct Risk (D)</i>: A risk that the project has a large degree of control over 2. <i>Indirect Risk (I)</i>: A risk with little or no project control
Impact	The relative, numerical estimation of the potential impact this risk can have if left unhandled. The number is in range 1-10, inclusive.
Probability	The relative, numerical estimation of the possibility of the risk event happening. The number is in range 1-10, inclusive.

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Magnitude	The relative, numerical estimation of the magnitude of the risk, calculated by the impact and probability estimations. This number is defined as $Impact \times Probability$, and is in range 1-100, inclusive.
Owner	The person or persons responsible for reporting this risk.
Mitigation Strategy	The plans for action before (avoidance) the event of the risk or in the event of the risk (mitigation).

3 Risk Management Report Specifications

Below is the list of risks we faced during the development of the project, and our implemented strategies to overcome those risks. **This list is also updated throughout the lifecycle of the project.**

Risks We Faced	Contingent Action	Status
The time required for a delivery artifact (DEL3) is underestimated.	We informed the stakeholders about the situation and demanded an extension for the related delivery artifact. The extension we requested was given.	Risk Mitigated
One or more members of the development team are sick.	We reassigned the development tasks to a different team member.	Risk Mitigated
The time required for a delivery artifact (DEL4) is underestimated.	We increased our efforts to complete the delivery.	Risk Effect Minimized