DOWNHILL

RISK MANAGEMENT PLAN

Version 1.1
01/23/2021

VERSION HISTORY

The Downhill project team recognizes that risk assessment and a well coordinated risk management plan is crucial to the successful implementation of the project. The purpose of this plan will be to carefully assess the uncertainties that may incur throughout the life cycle of the project. This document will ensure that the cost, schedule and performance of the project are achieved at every stage of its life cycle. It is very important to make sure that every team member recognizes that risk identification is an important part of such a project. The burden should not fall on the project manager or its coordinator. To ensure that this plan has been reviewed and understood by every member of the team, the following table is made to track the enrollment of the risk management plan.

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Shahid Khan	*01/26/2021*	*Sarah Ghorbali*	*01/28/2021*	Initial Risk Management Plan draft
1.1	Sarah Ghorbali	*01/29/2021*	*Shahid Khan*	*02/01/2021*	Revised Risk Management Plan

UP Version: 11/30/06

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1   INTRODUCTION

1.1   PURPOSE OF THE RISK MANAGEMENT PLAN

A risk is an event or condition that, if it occurs, could have a positive or negative effect on a project's objectives. Risk Management is the process of identifying, assessing, responding to, monitoring, and reporting risks. This Risk Management Plan defines how risks associated with the Downhill project will be identified, analyzed, and managed. It outlines how risk management activities will be performed, recorded, and monitored throughout the lifecycle of the project and provides templates and practices for recording and prioritizing risks.

The Risk Management Plan is created by the project manager in the Planning Phase of the CDC Unified Process and is monitored and updated throughout the project.

The intended audience of this document is the project team, project sponsor and management.

2   RISK MANAGEMENT PROCEDURE

2.1   PROCESS

The project manager working with the project team and project sponsors will ensure that risks are actively identified, analyzed, and managed throughout the life of the project. Risks will be identified as early as possible in the project so as to minimize their impact. The steps for accomplishing this are outlined in the following sections. The project manager will serve as the Risk Manager for this project.

2.2   RISK IDENTIFICATION

Risk identification will involve the project team, appropriate stakeholders, and will include an evaluation of environmental factors, organizational culture and the project management plan including the project scope. Careful attention will be given to the project deliverables, assumptions, constraints, WBS, cost/effort estimates, resource plan, and other key project documents.

A Risk Management Log will be generated and updated as needed and will be stored electronically in the project library located in Soen390/RiskManagementLog.

2.3   RISK ANALYSIS

All risks identified will be assessed to identify the range of possible project outcomes. Qualification will be used to determine which risks are the top risks to pursue and respond to and which risks can be ignored.

2.3.1   Qualitative Risk Analysis

The probability and impact of occurrence for each identified risk will be assessed by the project manager, with input from the project team using the following approach:

Probability
● High – Greater than 75% probability of occurrence
● Medium – Between 35% and 75% probability of occurrence
● Low – Below 35% probability of occurrence

Impact
- High – Risk that has the potential to greatly impact project cost, project schedule or performance
- Medium – Risk that has the potential to slightly impact project cost, project schedule or performance
- Low – Risk that has relatively little impact on cost, schedule or performance

Risks that fall within the RED and YELLOW zones will have risk response planning which may include both a risk mitigation and a risk contingency plan.

2.3.2   Quantitative Risk Analysis

Analysis of risk events that have been prioritized using the qualitative risk analysis process and their effect on project activities will be estimated, a numerical rating applied to each risk based on this analysis, and then documented in this section of the risk management plan.

2.4   RISK RESPONSE PLANNING

Each major risk (those falling in the Red & Yellow zones) will be assigned to a project team member for monitoring purposes to ensure that the risk will not "fall through the cracks".

For each major risk, one of the following approaches will be selected to address it:
- **Avoid** – eliminate the threat by eliminating the cause
- **Mitigate** – Identify ways to reduce the probability or the impact of the risk
- **Accept** – Nothing will be done
- **Transfer** – Make another party responsible for the risk (buy insurance, outsourcing, etc.)

For each risk that will be mitigated, the project team will identify ways to prevent the risk from occurring or reduce its impact or probability of occurring. This may include prototyping, adding tasks to the project schedule, adding resources, etc.

For each major risk that is to be mitigated or that is accepted, a course of action will be outlined for the event that the risk does materialize in order to minimize its impact.

2.5   RISK MONITORING, CONTROLLING, AND REPORTING

The level of risk on a project will be tracked, monitored and reported throughout the project lifecycle.

A "Top 10 Risk List" will be maintained by the project team and will be reported as a component of the project status reporting process for this project.

All project change requests will be analyzed for their possible impact to the project risks.

Management will be notified of important changes to risk status as a component to the Executive Project Status Report.

3   TOOLS AND PRACTICES

A Risk Log will be maintained by the project manager and will be reviewed as a standing

agenda item for project team meetings.

RISK MANAGEMENT PLAN APPROVAL

The undersigned acknowledge they have reviewed the **Risk Management Plan** for the Downhill project. Changes to this Risk Management Plan will be coordinated with and approved by the undersigned or their designated representatives.
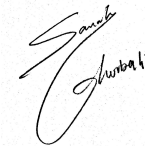
Signature:		Date:	26/01/2021
Print Name:	Shahid Khan		
Title:	Risk Advisor		
Role:	Software Quality Assurance		

Signature:		Date:	26/01/2021
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Title:	Developer		
Role:	Front end lead developer		

Signature:		Date:	02/03/2021
Print Name:	Juan Sebastian Hoyos		
Title:	Developer		
Role:	Project Manager		

Signature:		Date:	02/03/2021
Print Name:	Tommy Andrews		
Title:	Developer		
Role:	Software Architecture Manager		

APPENDIX A: REFERENCES

The following table summarizes the documents referenced in this document.

Document Name and Version	Description	Location
CDC Unified process: Glossary	*Words taken from CDC unified process glossary.*	https://www2.cdc.gov/cdcup/library/glossary/default.htm

Table 1: References used in the document.

APPENDIX B: KEY TERMS

The following table provides definitions for terms relevant to the Risk Management Plan.

Term	Definition
Risk	A risk is an uncertain event or condition that can have a positive or negative effect on the objectives of a project. It usually affects the project negatively.
Risk Management	Risk management is an approach to address the risks related to investment. It includes identification, analysis, prioritization and control of the risks. It is used to help define preventative measures to reduce the probability of risks happening.
Risk Response Planning	Risk Response planning is the process of developing and actions to reduce threats to the objectives of the project. risk response includes mitigation, contingency, transfer, avoidance and acceptance.
Risk Symptom	A risk symptom is an unwanted effect of a risk
Risk Trigger	A risk trigger is an event or a condition that will cause a risk to take place.
Security Risk Assessment	The security risk assessment is used to document the analysis of the security functional requirements and will identify the protection requirements for the system using a formal risk assessment process.
Activity	An activity consists of one of more actions that leads the project to the next stage. They result in the final deliverable. For example, activities could be accessing an application, uploading a data file and much more.
Budget	A budget is the approved estimate for a project
Risk Log	A risk log is a tool used by project teams to document and to monitor the risks.
Prototyping	Prototyping is the construction to a partial system to test a concept, a process or some aspect of the intended system behaviour. It is used to gain the user's acceptance or to establish technical feasibility.
Resources	Budgets, funds, staff, materials, services, equipment that can be used by an organization in order to function.

| Requirement | A requirement is a condition or a task that must be completed to ensure the completion of a project. It provides a clear picture of what should be produced. |

Table 2: Key Terms in the document