



NEXUSNTU

RISK MANAGEMENT PLAN

Version 1.0

01/10/2025

VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Akshay Krishna	01/10/2025	Aishwarya Anand	08/10/2025	Initial Risk Management Plan draft
2.0	Vu Thao Nguyen	14/10/2025	Akshay Krishna	14/10/2025	Format changing

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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 NexusNTU 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 to ensure consistency and effectiveness.

The Risk Management Plan is created by the Project Manager in the Planning Phase and is monitored and updated throughout the project.

The intended audience of this document is the project team, project sponsor and management, who will use it as a reference to guide risk-related decisions and actions.

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 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. The steps include:

1. Risk Identification – recognizing potential risks that may affect project outcomes.
2. Risk Analysis – assessing the probability and impact of identified risks.
3. Risk Response Planning – defining strategies to address high-priority risks.
4. Risk Monitoring, Controlling, and Reporting – tracking risks, implementing responses, and updating stakeholders.

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 on Google Drive. It will contain:

1. Risk ID
2. Description
3. Probability
4. Impact
5. Member in charge
6. Response/Action
7. Status

2.3 RISK ANALYSIS

All risks identified will be assessed to identify the range of possible project outcomes.

Qualifications will be used to determine which risks are the top risks to pursue and respond to, and which risks can be monitored at a lower priority. The analysis will be conducted in two stages: Qualitative and Quantitative Assessment.

2.3.1 Qualitative Risk Analysis

Qualitative Risk Analysis is the process of prioritizing risks by assessing their probability of occurrence and their potential impact on project objectives. 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 25% and 75% probability of occurrence
- Low – Below 25% 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.

	High	Incomplete documentation, Minor UI glitches	Data migration errors during deployment, Requirement changes from sponsor mid-project	Delay in software integration due to technical incompatibility
Impact	Medium	Minor design inconsistencies, API Malfunctions	Developer becomes unavailable, Database errors	Code updates not communicated to all team members
	Low	Typos in UI, Small formatting errors	Missing non-critical features	Small version control conflicts
	Low	Medium	High	
Probability				

Table 1: Impact-Probability Matrix for NexusNTU

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 to minimize its impact.

2.5 RISK MONITORING, CONTROLLING, AND REPORTING

Risk management will continue throughout the project lifecycle with these measures:

- Maintaining and updating a “Top 10 Risk List” as part of project status reporting.
- Reviewing all change requests for their impact on risks.
- Updating the Risk Management Log with new or evolving risks.
- Escalating significant changes in risk status to management through the Executive Project Status Report.

This process ensures that risks remain visible and properly managed.

3 TOOLS AND PRACTICES

- Risk Log – to record and track all identified risks, their probability, impact, and response strategies.
- Probability–Impact Matrix – to prioritize risks based on their likelihood and potential impact.
- Project Team Meetings – risk management as a standing agenda item for review and updates.
- Version Control System (e.g., Git) – to track code changes and ensure team communication.
- Email/Notification System – to communicate risk status and updates to team members and stakeholders.

RISK MANAGEMENT PLAN APPROVAL

The undersigned acknowledge they have reviewed the **Risk Management Plan** for the NexusNTU project. Changes to this Risk Management Plan will be coordinated with and approved by the undersigned or their designated representatives.

Signature:



Date: 14/10/2025

Print Name:

Akshay Krishna

Title:

Mr.

Role:

Front-end Developer

Signature:



Date: 14/10/2025

Print Name:

Shen Jia Cheng

Title:

Mr.

Role:

QA Manager

Signature:



Date: 14/10/2025

Print Name:

Aishwarya Anand

Title:

Miss

Role:

Project Manager

APPENDIX A: REFERENCES

The following table summarizes the documents referenced in this document.

Document Name and Version	Description	Location
System Requirements Specification	A detailed document describing all functional and non-functional requirements of the system.	3040-TEL2-NN/SC3040_Lab2_Deliverables/SC3040_System_Requirement_Specification.pdf at main · softwarelab3/3040-TEL2-NN
Quality Plan	A comprehensive document outlining QA practices, procedures, and management protocols that complement the Risk Management Plan.	3040-TEL2-NN/SC3040_Lab2_Deliverables/SC3040_Quality_Plan.pdf at main · softwarelab3/3040-TEL2-NN

APPENDIX B: KEY TERMS

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

Term	Definition
WBS (Work Breakdown Structure)	A hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives
Stakeholder	An individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of the project
Contingency Plan	A predefined course of action to be taken if an identified risk event occurs, designed to minimize its impact on the project
Version Control	A system that records changes to files over time so that specific versions can be recalled later
Executive Project Status Report	A formal report provided to senior management that summarizes project progress, issues, and significant risk changes