

**NANYANG  
TECHNOLOGICAL  
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**SINGAPORE**

## Risk Management Plan for Planit:

Team Members	Role
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Neo Yong Tai	Development Lead
Lee Yu Sheng Daniel	Back-End Developer
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Name of Design Team: **Team Syan**

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## VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Ryan Tan	10/03/2021	Xue Yao	10/04/21	Initial Risk Management Plan draft
1.1	Ryan Tan	10/10/2021	Yong Tai	10/10/21	Relevant Visuals added and Finalisation

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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. It directly influences the development of the business capability of the application and the management of the Planit project.

This Risk Management Plan is created by the project manager in the Planning Phase of Planit and is monitored and updated throughout the project

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

## **1.2 OBJECTIVES OF THE PLAN**

The objectives of the Planit Risk Management Plan are:

- To identify and evaluate risks impacting the scope, business, schedule and budget of the project.
- To reduce, mitigate and eliminate harmful threats in a timely manner to minimize the impact on the project.
- To reassure stakeholders and sponsors.
- To facilitate communication of risk within the project members such that there is effective coordination between project members in risk management procedures.

# **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 kept and updated as required via the project's Wiki page.

The Risk Management Log will include the following information:

1. Risk ID
2. Risk Type
3. Risk Description
4. Risk Probability/Impact/Score
5. Assigned Individual Dealing with Risk
6. Risk Mitigation Strategy

The table below lists some of the risks for the Planit project:

Area of Risk	Details of Risk
People	<ul style="list-style-type: none"><li>• Since developers are occupied with multiple projects at the same time, they may be unavailable to attend some meetings</li><li>• If any team member falls ill, there might be a delay due to the tight schedule of the project</li></ul>
Technology	<ul style="list-style-type: none"><li>• Crashing of the server may lead to loss of essential data and security breach</li></ul>
Requirement Changes	<ul style="list-style-type: none"><li>• Changes in requirements are proposed usually to improve the quality of the software at a later stage of development</li></ul>
Underestimated Development Time	<ul style="list-style-type: none"><li>• The time required to develop the various components of the software is underestimated</li></ul>

## 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 <70%> probability of occurrence
- Medium – Between <30%> and <70%> probability of occurrence
- Low – Below <30%> probability of occurrence

I m p a c t	H			
	M			
	L			
		L	M	H
Probability				

**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.

I m p a c t	H	1. Data Theft (2) 2. Quarantined Team Members (7)	1. Scraper failure (1) 2. Requirement Changes (4) 3. Sick Developer (6)	Server Crash (3)
	M			
	L	1. Overworked Developers (5)	1. Underestimated deadlines (8)	
	L		M	H
Probability				

### 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.

Severity is the effect that will cause this project. It will be ranged from 1 to 3, with 1 as low effect that can be accepted/reduced easily and 3 as high effect that will cause major disruption for the project if it is not solved properly.

Likelihood is the probability that the event will happen. It will be ranged from 1 to 3, with 1 as low probability and 3 as high probability of occurrence.

Level of Control is the control we have for this particular risk type. It will be ranged from 1 to 3 as well, with 1 as low level control and 3 as high level control.

Lastly, Significance is the sum of Severity, Likelihood and Level of Control.

Risk	Severity	Likelihood	Level of Control	Significance
People	2	2	3	7
Technology	3	1	1	5
Requirement Changes	3	3	1	7
Underestimated Development Time	3	2	1	6

Revision Date: <10/10/2021>

Risk Management Plan

For Internal Syan Use Only

## 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.

The table below is an illustration of the risk response plans for Planit:

Risk	Selected Approach	Strategy
People	Mitigate	A team member will be assigned to be incharge of writing the meeting minutes and then send updates to the team members so that any members who are unwell can be aware of the current progress and the new task assignments for each member. If the one in charge is unwell, another member will take over.
Technology	Mitigate	Investigate the possibility of buying a database that has better performance through research on the vendors' reliabilities.
Requirement Changes	Accept	Necessary requirement changes to the system must be accepted.
Underestimated Development Time	Avoid	Devise a more concise and detailed plan, which will be discussed and agreed by all team members in the project.



## **2.5 RISK MONITORING, CONTROLLING, AND REPORTING**

The level of risk of the project will be tracked, monitored and reported throughout the Planit 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 Management Log will be maintained by the project manager and will be reviewed as a standing agenda item for project team meetings.

Constant monitoring on each risk will also be done to ensure that everything is under control and working smoothly.

**RISK MANAGEMENT PLAN APPROVAL**

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

Signature:  Date: 10th March 2020  
Print Name: Ryan Tan Jinn-En  
Role: Project Manager

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**APPENDIX A: REFERENCES**

The following table summarizes the documents referenced in this document.

<b>Document Name and Version</b>	<b>Description</b>	<b>Location</b>
Team Syan Proposal	Defines the details of the project (eg. database, servers)	<a href="https://drive.google.com/drive/u/0/folders/1fJUjOnem-UnxPsqaomcODWG15ITTkMbn">https://drive.google.com/drive/u/0/folders/1fJUjOnem-UnxPsqaomcODWG15ITTkMbn</a>

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**APPENDIX B: KEY TERMS**

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

Term	Definition
Database	A platform which will house all of the user's data
Server	A platform which will host the application and provide services to users