

# **Risk Management Plan**

**for**

## **Cafe Bunny**

**RM\_PRO\_004\_V1.2**

**Version 1.2 approved**

**Prepared by Team Code Nation**

**Nanyang Technological University,**

**School of Computer Science & Engineering**

**26/03/2021**

**Submitted to:**

**Dr. Shen Zhiqi, Lab Supervisor**

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## VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Ong Yi Shen	12/03/2021	Chew Zhi Kang	13/03/2021	Initial Risk Management Plan 1st Draft
1.1	Chew Zhi Kang	14/03/2021	Ong Yi Shen	14/03/2021	Risk Management Plan 2nd Draft (Clarification and Formatting Changes)
1.2	Ong Yi Shen	26/03/2021	Chew Zhi Kang	26/13/2021	Documented known risks to project

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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 Cafe Bunny 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 software development lifecycle 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.

The team will generate a Risk Management Log to outline all the risks and update as needed, stored electronically in the team's Project Plan document.

### **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:

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

#### Probability

- High – Greater than 70% probability of occurrence
- Medium – Between 30% and 70% probability of occurrence
- Low – Below 30% 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.

Risk	Probability	Impact	Response
Insufficient server capacity	Medium	High	Mitigate
Underestimate time required to develop software	High	High	Avoid
Proposed changes to requirements that require major design rework	Medium	Medium	Avoid
Key developers are ill and unavailable at critical times	Low	Medium	Accept
Server data loss	Low	High	Mitigate
Critical bugs that impact development times	Medium	High	Mitigate
Testing tools in its infancy	Low	Medium	Avoid

#### 2.3.2.1 Insufficient server capacity

Insufficient server capacity causes downtime for users of the app, reducing user satisfaction. Response is to mitigate by preparing additional servers during estimated peak periods of user activity.

#### 2.3.2.2 Underestimate time required to develop software

Improper planning causes an underestimation in the scheduling of the project. Response is to avoid altogether by doing estimations on the size of the project and planning the schedule based on estimations with a 10% increase buffer time.

**2.3.2.3 Proposed changes to requirements that require major design rework**

Changes proposed require major design rework and will cause delays to the project. Response is to avoid by doing proper requirement specification and having proper channels with stakeholders to communicate any changes during the requirements phase of the project.

**2.3.2.4 Key developers are ill and unavailable at critical times**

Certain phases of the project require key personnel and if they are unavailable due to sickness could cause uncertainties and delays. The response is to accept it and try to proceed with the project based on plans.

**2.3.2.5 Server data loss**

Due to unexpected hardware failure of the server, data is lost. This can have an impact on user satisfaction and their trust in the app. The response is to mitigate by keeping backup stores of data on backup servers.

**2.3.2.6 Critical bugs that impact development times**

Critical bugs are found during the testing phase that can take a long time to fix and cause project delays. The response is to mitigate by allocating extra time to the project for contingency purposes.

**2.3.2.7 Testing tools in its infancy**

New testing tools, even if they have additional features, might not be well documented and unstable which could mean that the time saved from the additional features might not be as much as expected. The response is to avoid using new tools and go for the more established ones.

**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 Cafe Bunny project. Changes to this Risk Management Plan will be coordinated with and approved by the undersigned or their designated representatives.

Signature:	<u>Yi Shen</u>	Date:	<u>03/13/2021</u>
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Title:	<u>Mr</u>		
Role:	<u>Project Manager</u>		

Signature:	<u>Asyraaf</u>	Date:	<u>03/13/2021</u>
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