SPORTZ

RISK MANAGEMENT PLAN

Version *<1.1>*
<24/02/2022>

VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Hermes Lim	24/02/2022	Chee Zi Hoe	3/03/2022	Initial Risk Management Plan draft
1.1	Hermes Lim	3/03/2022	Chee Zi Hoe	4/03/2022	Added glossary and Risk Management Log
1.2	Hermes Lim	7/03/2022	Chee Zi Hoe	8/03/2022	Added classifications of risks

UP Template 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 project: SportZ, will be identified, analysed, 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 prioritising 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.

Due to the diverse risks available, the table below shows the different types of risk categories.

Risk Categories	Description
Stakeholders	Stakeholders refers to the group of personnel with an interest in the project's outcome. Factors such as sponsor-caused risk, executive support conflicting stakeholders, can be a risk factor in affecting the project's success.
Scope and requirements	Scope and requirements refers to all the work needed to deliver a product, service or result as defined in the product scope. Inconsistent and unclear product requirements as well as poorly defined scope are one of the few factors that may jeopardise the project's success.
Change of management	Change management supports projects by helping teams adapt to new processes. Poor change of management such as inconsistent logging of change requests, inefficient control over the implementation of changes are factors that will affect the project's success.
HR management	HR management is concerned with organising, managing, and leading a project team. HR is important as it allows companies to oversee and forecast completion dates for each phase of a project or initiative so they end on time,

	within budget, and within scale. It is thus a crucial factor in a project's success.
Communications and decision making	Communication and decision making is a collection of processes that help make sure the right messages are sent, received and understood by the right people. Information should be conveyed properly to manage teams and coordinate effort in order to bring about a project's successful resolution.
Enterprise environment factors	Enterprise environment factors include all policies, practices, procedures and legislation that exist both inside and outside of the project that will impact the way the project is being managed. Factors such as resistance to changes, lack of expertise may be a factor in affecting the project's success.
Lack of risk management	Lack of risk management can occur when any of the project specific risks are not properly recognised and mitigated by stakeholders. Risks can be in the form of residual risk and secondary risk, which has the ability to severely impact the project's success.
Technical solutions	Technical solutions refers to the possible impact that a change could have on a project, system or the entire infrastructure if the implementation of the design and architecture and integration does not work as anticipated.
External risks	External risks refers to those that are outside the control of the project team as well as the host organisations. Examples of external risks may include, external events that impact the progress of the development team such as natural disasters etc.

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, analysed, and managed throughout the life of the project. Risks will be identified as early as possible in the project so as to minimise their impact. The steps for accomplishing this are outlined in the following sections. The Lead Developer 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, organisational 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 uploaded in the Project Wiki.

Below are the identified risks for SportZ grouped in different risk categories.

- Stakeholders
- Scope and requirements
    - Unclear requirements
    - Feasibility of requirements
- Change management
- HR management
    - Project Management Restructure
- Communications and decision making
    - Incompetence in decision making
- Enterprise environment factors
    - Lack of expertise
- Lack of risk management
    - Secondary risk
    - Residual risk
    - Underestimation of Project Size
- Technical solutions
    - Integration
    - Inefficient code
    - High Rate of Bugs & other software-related issues
- External risks
    - User acceptance
    - Changes in Covid-19 Measures

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. Risk Analysis involves identification and assessment of the probability and seriousness of each risk based on consideration of several contributing factors. Probability may be classified into three categories of low, moderate, or high for analysing the associated risk, depending on the likelihood of the risk. Similarly risk effects can be categorised into low, medium, and high, depending on the severeness of the consequences of the risk.

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: The Impact-Probability matrix will allow us to assess the likelihood and consequences of the risks.

Impact				
High	1. Unclear requirements 2. Feasibility of requirements 3. Underestimation of Project Size 4. User acceptance	1. High Rate of Bugs & other software-related issues	
Medium	1. Incompetence in decision making 2. Integration	1. Lack of expertise 2. Changes in Covid-19 measures	
Low	1. Project Management Restructure 2. Secondary risk	1. Residual risk 2. Inefficient code	
	Low	**Medium**	**High**
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 prioritised 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.

Area of Risk	Severity	Likelihood	Level of Control	Significance
Technology	3	2	2	7
Market	1	2	1	4
Financial	2	2	3	6
Structure/Process	1	2	1	4
People	3	2	2	7
Organisational	2	1	2	5
Tools	2	1	2	5
Requirements Changes	3	3	1	5
Estimation	3	2	2	7

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 materialise in order to minimise its impact.

Area of Risks	Approach Selected	Strategy
Technology	Avoid	Conduct research on viable and reliable technologies to ensure that all imminent risks can be avoided.
Market	Accept	Market changes have to be accepted and actions should be taken accordingly.
Financial	Avoid	A proper budget estimation should be done at the start of the project and this should take into account the worst case scenario so as to eliminate any possible cases of budget overrun.
Structure/Process	Accept	Since these are external risks that are unavoidable in nature, the best course of action should be chosen when such a scenario arises.
People	Mitigate	Team members are always aware of each others' responsibilities so they can cover for one another in the case of one's absence. Team members will also conduct regular checks on

		each other to monitor progress.
Organisational	Accept	Organisational changes have to be accepted and actions should be taken accordingly.
Tools	Mitigate	Conduct extensive research on the software tools that we plan to use before using them. Discuss with team members and ensure that all members are comfortable and confident in using the tool.
Requirements Changes	Accept	Requirements are bound to change in the future, necessary changes will need to be made to the application to accommodate such changes.
Estimation	Avoid	Use project planning applications and ensure that all team members adhere to the deadlines.

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 analysed 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. Constant monitoring will be done for each risk and checked by the project manager as well as the quality assurance manager so as to ensure all risks are well managed. Weekly reviews on the risk mitigation strategies are enforced to reduce any potential risks occurring in the development phase of the project.

RISK MANAGEMENT PLAN APPROVAL

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

Signature:	Lin Zixing	Date:	09/03/22
Print Name:	Lin Zixing		
Title:	Mr		
Role:	Project Manager		

Signature:	Chee Zi Hoe	Date:	09/03/22
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Signature:	Hermes Lim HongJun	Date:	09/03/22
Print Name:	Hermes Lim HongJun		
Title:	Mr		
Role:	Quality Engineer		

APPENDIX A: REFERENCES

The following table summarises the documents referenced in this document.

Document Name and Version	Description	Location
Risk Management Log	Provides a list of risks and their descriptions	Project Wiki

APPENDIX B: KEY TERMS

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

Term	Definition
Qualitative Risk Analysis	Analyzes the effect of those risk events and assigns a numerical rating to those risks
Quantitative Risk Analysis	Assesses priority identified by using the probability of occurring, corresponding impact on project objectives
Risk Mitigation	Mitigation efforts attempt to prevent risks from developing into issues, or to reduce the effects of risks when they occur.
Contingency Plan	A documented, organized, planned, and coordinated course of action to be followed if an identified risk escalates into a project issue.
WBS	Work Breakdown Structure
Risk Management Log	A log to keep track of the various risks associated with the project