

Nanyang Technological University

Team SportZ

50 Nanyang Ave, 32 Block N4 #02a
Singapore 639798

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APPROVALS

Submitting Organization's Approving Authority:

Signature Printed: Zixing, SportZ Project Manager

Name: Lin Zixing

Date: 30/03/2022

Phone Number : +65 90691707

CMS' Approving Authority:

Signature Printed: Fabian Wong, SportZ Release Manager

Name: Fabian Wong

Date: 30/03/2022

Phone Number: +65 81216365

REVISION HISTORY

Version	Date	Organization/Point of Contact	Description of Changes
1.0	30/03/22	Zixing	Baseline Version

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1. INTRODUCTION

This Release Management Plan documents the process and considerations for the incremental release for the Game Development Project titled “*SportZ*”. SportZ is a game developed by Team Sportz as part of the ActiveSG movement to encourage teenagers and young adults to maintain a healthy lifestyle through sports, as part of Sports Singapore’s effort to encourage healthy living as COVID-19 eases.

This document will encompass the team’s release approach and strategy. Types of release include internal incremental release for the test team, as well as external releases for the customer. Information regarding management and monitoring of releases in the Operations and Maintenance Phase will also be included.

2. REFERENCED DOCUMENTS

Table 1: Referenced Documents

S/N	Document Identifier	Document Name	Issuance Date
1	1.0	SportZ_Project_Plan_V1.0	13/03/2022
2	1.0	SportZ_Design_Report On_Software_Maintainability_V1.0	30/03/2022
3	1.2	SportZ_Risk_Management_Plan_V1.2	13/03/2022
4	1.1	SportZ_Configuration_Management_Plan_V1.1	27/03/2022

3. OVERVIEW

SportZ is a detailed and engaging 2D endless runner game that aims to encourage individuals to indulge in a sporting culture through the playing of games. This Release Plan is created to provide information on the different releases of this software project, including internal test releases and

external public releases. Contents of each release alongside the release schedule will be included in this document.

4. ASSUMPTIONS, CONSTRAINTS, RISKS

4.1. Assumptions

For every release, the software is assumed to have gone through the quality process for testing, verification and validation. For internal test releases, the stipulated units and components for the incremental delivery are expected to be completed so that unit testing can be performed.

As SportZ is a standalone software without dependencies on external software or systems for deployment, the primary and only software related dependency is the version of Unity3D engine used, as this can affect the required files, operating systems and hardware requirements for the software on each release.

However, development of SportZ is assumed to stay on one consistent stable version of Unity3D, which would remove deployment dependencies from this project.

Below are some of the other assumptions that were made throughout the development of SportZ.

4.1.1 Team dynamic

Team members in SportZ are expected to work well with each other as well as being able to deliver their work on time where deadlines agreed during team meetings will be met. During the project's duration, members are also assumed to remain on the team, with no one leaving the team.

4.1.2 Budget

Team will not overrun the budget allocated, Funds are acquired on time as well, with no unexpected costs incurred outside the allocated budget.

4.1.3 Time

Members in SportZ are to follow the Gantt chart that has been generated by the team. In an event where there are miscalculations in the amount of time allocated, it is expected that the project schedule will not be extended beyond a maximum of 2 weeks.

4.2. Constraints

The SportZ game development project is bound by the software development triple constraints: Customer, Time and Budget.

1. Customer Constraint

All creative design ideas and development are bound by the requirements for the project. Despite possessing some degree of design freedom, the sports theme and accurate depiction of each sport has to be strongly adhered to. Exaggeration to certain degrees are acceptable in order to make the product engaging and attractive.

2. Time Constraint

The project is bounded by the start and end dates of 8th February 2022 to 31st March 2022. All configuration items of the project are expected to be complete and a stable baseline to be released by the deadline of 31st March.

3. Budget Constraint

The project budget is planned under the best case scenario for development, where delays and speedups of components are unnecessary. The project budget was estimated to be **\$28628.80** as per the Project Plan, in **Section 5 Estimates of <<SportZ_Project_Plan_V1.1>>**.

4.3. Risks

Standard project risks apply to the SportZ project, which includes and are not limited to:

1. Underestimation of Project Size
2. Changing Specifications
3. Retention of employees
4. Cancellation of Project
5. Negligent in monitoring of project status
6. Unrealistic schedules

For more general risks as well as detailed description, severity, probability and mitigation measures for aforementioned risks, please refer to **Section 8 Risk Management of <<SportZ_Project_Plan_V1.1>>** and **<<SportZ_Risk_Management_Plan_V1.2>>**.

5. RELEASE APPROACH

5.1. Rationale

SportZ uses the Agile Software Development model, specifically a modified version of the Scrum model. A sprint cycle of 2 weeks is utilized, where an internal release is expected by the end of each sprint cycle. As the game mechanics can be separated to several components and units, each release is expected to provide a mini-prototype of a component to facilitate unit testing during development. Prior to the deadline of 31st March, the first baseline of the project is expected to be complete, and the software to be ready for its first external launch.

5.2. Release

5.2.1 Release Content

Using the incremental delivery aspect of the Scrum model, documents and software components will be released in an incremental manner, with intervals up to 2 weeks (sprint cycle). Future releases are to encapsulate Configuration Items (CIs) from previous release, and will not be included in the release content table unless a new version or revision of the CI is produced. Contents for each release are detailed in the table below. *(Version refer to version of the project as a whole as of release, denoted by x.y.z where x = major version, y = minor version and z = patch version, please see section 3: Configuration Identification in <<SportZ_Configuration_Management_Plan_V1.1>>).*

Note that internal releases are identified by version numbers <0.y.z> .

Table 2: Release Content

S/N	Release Type	Version	Content (CIs)	Changes
1	Internal	0.1.0	1. SportZ_Project_Proposal_V1.0 2. SportZ_Use_Case_Model_V1.0	Documentation: Added Project Proposal and Use Case Model V1.0 to release
2	Internal	0.2.0	1. SportZ_Quality_Assurance_Plan_V1.0 2. SportZ_SRS_V1.0 3. SportZ_Product_Backlog_V1.0 4. SportZ_Prototype_1.0.0	Documentation: Added Quality Assurance Plan, System Requirement Specification, Product Backlog to release Code: First prototype v1.0.0 added to release

3	External (Prototype)	0.3.0	<ol style="list-style-type: none"> 1. SportZ_Risk_Management_V1.1 2. SportZ_Project_Plan_V1.0 3. SportZ_Product_Backlog_V1.1 4. SportZ_Prototype_2.0.0 	<p>Documentation: Added Risk Management Plan and Project Plan. Updated Product Backlog.</p> <p>Code: Prototype updated with all features from initial plan and art assets added. Customer feedback to be obtained from the playtesting of the prototype in this external release.</p>
4	Internal	0.4.0	<ol style="list-style-type: none"> 1. SportZ_Product_Backlog_V1.2 2. SportZ_Prototype_2.1.0 3. SportZ_Configuration_Management_Plan_V1.1 4. SportZ_Change_Management_Plan_V1.0 5. SportZ_Release_Plan_V1.0 6. SportZ_Design_Report_On_Software_Maintainability_V1.0 	<p>Documentation: Added Configuration Management Plan, Change Management Plan, Release Plan and Design Report on Software Maintainability. Updated Product Backlog</p> <p>Code: Bug fixes and improvements based on customer feedback</p>
5	External (First Full Release)	1.0.0	<ol style="list-style-type: none"> 1. SportZ_Product_Backlog_V1.3 2. SportZ Game V1.0.0 	<p>Updated Product Backlog</p> <p>First full release of SportZ game</p>
6	External	1.1.0	<ol style="list-style-type: none"> 1. SportZ_Product_Backlog_V1.4 2. SportZ Game V1.1.0 	<p>Updated Product Backlog with necessary bug fixes and updates</p> <p>Updated game with necessary improvements and bug fixes.</p>

5.2.2 Release Schedule

Prior to the external release date of 31st March 2022, there is expected to be 4 internal releases to track the development progress and adherence to customer requirements. Feedback is also obtained from the customer from the 2nd internal release onwards, as a playable prototype will be ready on the 2nd internal release.

The first external release of SportZ will be on 31st March 2022. The first month following the release will be used to document any errors or bugs reported by our end users as well as gathering feedback after the release.

In the next release, improvements will be made to address errors, bugs and feedback submitted by users. Our team will work on improving SportZ's gameplay on 31st April 2022, We expect to infuse a month's worth of time into these tasks and release the second version of SportZ on 31st May 2022.

Table 3: Release Schedule

Release Version	Scheduled Release Date
0.1.0	27/01/2022
0.2.0	10/02/2022
0.3.0	24/02/2022
0.4.0	17/03/2022
1.0.0	31/03/2022
1.1.0	31/05/2022

5.2.3 Release Impacts

For the first release, the release impact is not significant as it is a new release with new components involved. The main goal of the initial release will be to gather as much feedback as possible from users. This can ensure that the application will fulfill the user requirements in future releases.

SportZ aims to ensure that any changes made in subsequent releases will not break or affect the system such that there will be no release impact.

5.2.4 Release Notification

Effective stakeholders' engagement notifications must be nuanced. Therefore, the notification sent out to SportZ's different stakeholders will be catered to their greatest interest. Below is a table with the various information, and timeframe for release notification for each stakeholder.

Table 4: Release Notification

Stakeholders	Mode of Notification	Information	Timeframe for release notification
End-users	Notifications tray in system, Emails	Changes made to the system. i.e. new features, Bugs/Errors fixed. Scheduled system maintenance.	Actual day of release. 3 days before maintenance.
Team Members	Official Telegram message, Emails and Meetings	Addition of new features, fixing bugs/errors (Technical message), and improvement of existing features.	Once the release decision has been made.
Sponsors and Investors	Meetings, Emails	Changes to be made to the system (Semi-technical message). Bugs/errors fixed.	14 days prior to version release.
Helpdesk	Meetings, Emails	Changes to be made to the system (Semi-technical message). Bugs/errors fixed.	10 days prior to version release.