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# **REVISION HISTORY**

| Date       | Version | Description                          | Author       |
|------------|---------|--------------------------------------|--------------|
| 30/10/2020 | 0.1     | Explaining of system overview        | Tuğcan Hoşer |
|            |         | Abbreviation is added                | Tuna Tuncer  |
| 31/10/2020 | 0.2     | References and conventions are fixed | Uygar Kaya   |
|            |         |                                      | Onur Alaçam  |
| 01/11/2020 | 0.3     | User Requirements are added          | Onur Alaçam  |
|            |         |                                      | Utku Özkan   |
| 02/11/2020 | 0.4     | System Requirements are added        | Tuna Tuncer  |
|            |         |                                      | Uygar Kaya   |
| 04/11/2020 | 0.5     | System Requirements and User         | Tuğcan Hoşer |
|            |         | Requirements are fixed               | Onur Alaçam  |
| 06/11/2020 | 0.6     | Package diagram is created and       | Utku Özkan   |
|            |         | added                                | Tuna Tuncer  |
| 07/11/2020 | 0.7     | Use case diagram and Sequence        | Uygar Kaya   |
|            |         | diagram are created and added        | Onur Alaçam  |
| 13/11/2020 | 0.8     | Activity diagram is added            | Tuğcan Hoşer |
|            |         |                                      | Onur Alaçam  |
| 14/11/2020 | 0.9     | System requirements specification is | Uygar Kaya   |
|            |         | fixed                                | Utku Özkan   |
| 15/11/2020 | 1.0     | Minor changes are made               | Tuna Tuncer  |
|            |         |                                      | Onur Alaçam  |

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## 1 INTRODUCTION

### 1.1 Document overview

This document presents the software requirements specifications of FB software development project. It describes functional requirements, quality requirements, constraints, use cases, and usage scenarios. It also provides an overview of the system architecture.

### 1.2 System overview

FB (Flappy Bird) is a single player game. The flapping bird rises at each command and works by trying barriers. The bird that touches the barriers or the ground dies and the game start again.

Flappy Bird is a desktop application for entertaining and mentally relaxing the people in their spare time. In addition to these, the game will also be responsible for enhancing the people's attention.

### 1.3 Abbreviations

FB: Flappy Bird

JDK: Java Development Kit

**UML**: Unified Modelling Language

**IDE: Integrated Development Environment** 

SDP: Software Development Plan SDD: Software Design Document

SRS: Software Requirement Specification

STP: Software Test Plan STR: Software Test Report

## 1.4 References

| #    | Document Identifier | Document Title                           |
|------|---------------------|--|
| [R1] | FB-SDP-2            | Software Development Plan of FB software |

### 1.5 Conventions

Requirements listed in this document are constructed according to the following structure:

## **SRS-FB-001**

Description of FB-001 requirement

Every system requirement id includes the id of the corresponding user requirement as a prefix.

## SRS-FB-001.1

Description of FB-001.1 system requirement, which is related to the user requirement FB-000

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## 2 REQUIREMENTS

## 2.1 User Requirements Specification

### **SRS-FB-001**

FB shall enable users to register.

### **SRS-FB-002**

FB shall enable users to login and logout.

### **SRS-FB-003**

FB shall provide a play button which enables him/her to enter the game.

### **SRS-FB-004**

FB shall enable users to click on the screen to ensure the bird for flying.

### **SRS-FB-005**

FB shall enable when users do not click on the screen the bird will be dropped.

### **SRS-FB-006**

FB shall enable users to count their scores when the user's bird passing through barriers.

### **SRS-FB-007**

FB shall enable the game ends when the user's bird hits the barrier or falls to the ground.

## **SRS-FB-008**

FB shall enable user's score which is counted per game will be viewed at the end of the game.

## **SRS-FB-009**

FB shall provide a restart button which enables him/her to restart the game.

### SRS-FB-010

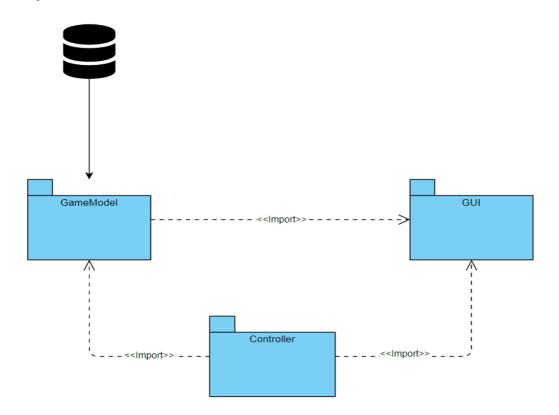
FB shall provide leaderboard button which allows users to see best scores.

## **SRS-FB-011**

FB shall provide an exit button which enables him/her to exit the game.

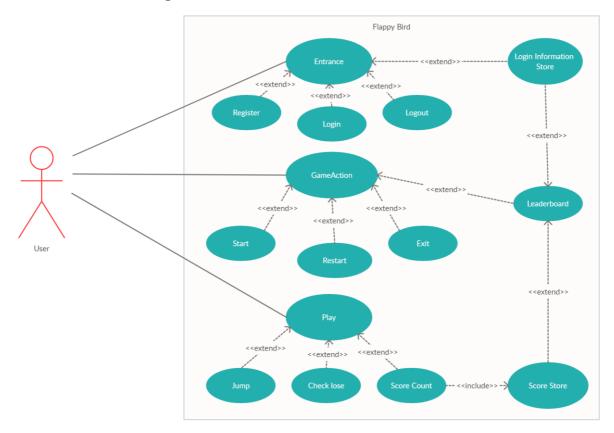
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## 2.2 System Architecture

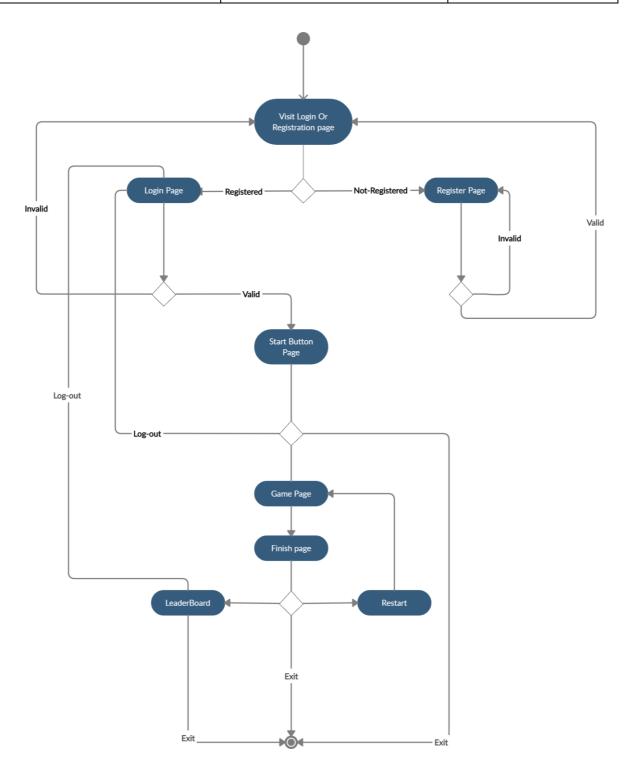


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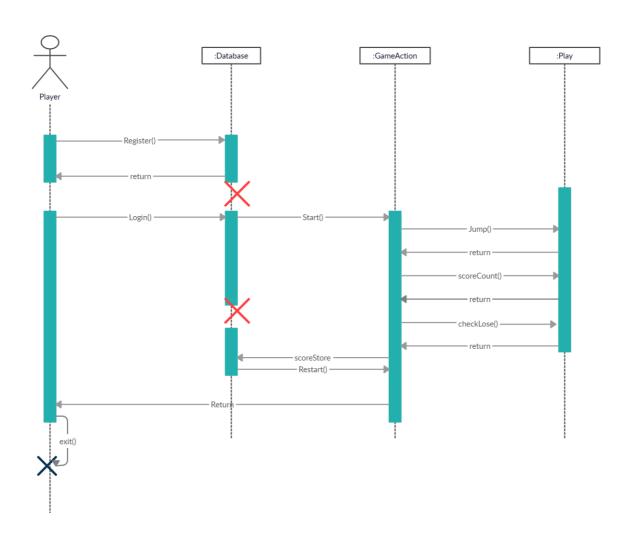
## 2.3 Use Cases and Usage Scenarios



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## 2.4 System Requirements Specification

### SRS-FB-001.1

FB shall enable to store username and password provided by users in the database server.

### SRS-FB-001.2

FB should warn user if the same username has been taken before.

#### SRS-FB-002.1

FB shall enable to check if username and password from the database matches what user entered.

### SRS-FB-003.1

FB shall enable when the users to click the start button, the game will be started.

### SRS-FB-004.1

FB ensures that after user click the screen, bird should take an action, jumping.

### SRS-FB-004.2

FB provides that when the user clicks the screen, the y-coordinate of the bird will be increased.

### SRS-FB-005.1

FB ensures that after user do not click the screen, bird will be dropped.

### SRS-FB-005.2

FB provides that when the user does not click the screen, the y-coordinate of the bird will be decreased.

## SRS-FB-006.1

FB provides that the barriers to move.

## SRS-FB-006.2

FB shall enable to create random size of the barriers which has an equal gap.

## SRS-FB-006.3

FB ensures that if the bird is passing barriers, the count is increased by 1.

### SRS-FB-007.1

FB ensures that the game will be finished if the coordinates of the bird and the coordinates of the barrier are the same.

### SRS-FB-007.2

FB ensures that the game will be finished if the coordinates of the bird and the coordinates of the ground are the same.

## SRS-FB-008.1

FB provides that when the bird pass through the barrier, count will be incremented by one.

## SRS-FB-008.2

FB ensures that when game is over the users can see their scores within 1 seconds.

### SRS-FB-009.1

FB ensures that when the users to click the restart button, the game will be restarted.

### SRS-FB-010.1

FB provides a leaderboard button which shows 10 highest ranked players.

### SRS-FB-010.2

FB ensures that when the users can want to see their scores view within 0.3 seconds by using Database.

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## SRS-FB-011.1

FB provides that when the user clicks the exit button, the game will be turned off.