**System Sequence Diagrams**

**Version 1.5**

**Project Management App**

**Team A**

**CSC-354**

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**TABLE OF CONTENTS**

Revision History…………………………………………………………………………………..ii

1.0 Introduction……..….....…………………………….…...…………………………….……....1

1.1 What Is A System Sequence Diagram?………....……………………………….......1

1.2 System Sequence Diagram Notation………………………………………………….1

1.3 System Sequence Diagrams for Project Management App…………………….….1-6

**REVISION HISTORY**

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| --- | --- | --- | --- |
| Version | Author | Description | Date |
| 1.0 | Tyler Mariano | I created the first draft. | 10/22/2015 |
| 1.1 | Jennifer Li | I added the paragraph descriptions for the document. | 10/24/2015 |
| 1.2 | Tyler Mariano | I added the five diagrams. | 10/26/2015 |
| 1.3 | Jennifer Li | I edited the sub section titles and paragraphs. | 10/27/2015 |
| 1.4 | Hector Richiez | I changed the stick figure from leader to member to represent the two events performed by the member. | 10/27/2015 |
| 1.5 | Tyler Mariano | I added descriptions and action boxes to the five diagrams. | 10/28/2015 |

**1.0 INTRODUCTION**

This document shows the infrastructure with the system as a whole. The diagrams, will describe a particular scenario of the desired use case. The input, which is generated by external actors and the output, which is generated by the system. Addition to that it will present, the order of the how the system will be affected by the actor’s action. System sequence diagram will be defined first; next, the UML notation for the system sequence diagram is explained; finally, the system sequence diagram for the project management app will be presented.

**1.1 What Is A System Sequence Diagram?**

System sequence diagram is a visual representation of a distinct use case. Typically, in a system sequence diagram, it captures the behavior of an individual use case scenario. The diagram would show the order, of how the objects and the messages that are passed between them, interact with in the use case. In simpler terms, the system sequence diagram will show a scenario of a use case that is triggered by an actor. For example, in an ATM scenario, if an actor wants to withdraw money; the actor would input the amount that he wanted and the system will either withdraw the money from his account and dispense it or deny his request of withdraw because of insufficient funds.

**1.2 System Sequence Diagram Notation**

This section explains the notation use in system sequence diagrams. In a system sequence diagram a stick figure is used to represent the actor that has a specific role. A rectangular box that contains “:System” which represents the system as a black box. The diagram also contains two types of arrowed lines that shows the input and output, between the actor and the system. The first arrowed line is a solid arrowed line pointing to the system, representing the sent input message from the actor. The second arrowed line is a dashed lined arrow pointing to the actor, representing the output message sent from the system. Last but not lease, system sequence diagrams have a life line or a duration which represents the session in which the interactions take place.

**1.3 System Sequence Diagrams for Project Management App**

The project management app, will have two major components involved in the system sequence diagram. The first component would be the actor, in these cases the actor can be a project leader or a project member. The other major component would be the system. There will be a total of five system sequence diagrams each containing the appropriate notation. Since the project management app has two specific actors, our team decide to pick one use case that affects all actors. Two specific use cases that will affect the project leader and two specific use cases that will affect the project member.

The system sequence diagrams of the Project Management App are listed below.

Leader and Member

:System

Prompts user for their userName and password

Login(userName, password)

successMessage: “Welcome back, userName”

\*sends user to main menu screen\*

Successful(successMessage)

errorMessage: “You have entered the wrong userName and/or password.”

\*clear fields\*

\*prompt user for forgot password\*

Unsuccessful(errorMessage)

Allows the leaders to send invitations to other application users to invite them to be part a given project.

:System

Leader

AddMember(userName, projectName, inviteMessage)

sucessMessage: “userName has agreed to work on the projectName project”

\*userName is added to projectName‘s Datebase\*

Successful(successMessage)

errorMessage: “The inviteMessage was not received”

errorMessage: “The inviteMessage was declined”

Unsuccessful(errorMessage)

Leader

This allows the leader to review a task submitted to them buy one of the members

:System

ReviewTask(submittedTask, userName, comment)

sucessMessage: “submittedTask has been marked as complete”

\*Update progress charts\*

\*Unlock dependent tasks (if needed)\*

Successful(successMessage)

errorMessage: “submittedTask has been marked as incomplete”

\*leader must reassign the task\*

Unsuccessful(errorMessage)

:System

Member

ViewTaskProgress(taskName)

Successful(successMessage)

Unsuccessful(errorMessage)

Members can view only their own taskName’s progress

sucessMessage: “Gant chart view has been opened for task taskName”

\*app displays chart screen\*

errorMessage: “There was a connection error”

\*returns to the previous screen\*

:System

Member

Allows the member to upload documents along with their task submissions

UploadDocument(documentName, taskName)

sucessMessage: “The document doumentName has been upload for the task taskName”

Successful(successMessage)

errorMessage: “There was a connection error”

\*returns to the previous screen\*

Unsuccessful(errorMessage)