

PepeFit Sport Center	Version: 1.2
Software Design Description	Date: 25.04.2018



HACETTEPE UNIVERSITY

**Computer Engineering
BBM384 Software Engineering Laboratory**

**Sport Center Management
System Software Design
Description**

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SERHAT SAĞLIK**

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Book Loan System

Software Design Description

1. RevisionHistory

Version	Date	Author	Change Description
1.0	19.04.2018	Eyüpcan Bodur	ER Diagram added.
1.1	23.04.2018	Berk Can Özen	Sequence diagrams added.
1.2	25.04.2018	Ege Uçak Bahadır Adak Serhat Sağlık	Class diagram and traceability matrix is added.

2. INTRODUCTION

2.1 Purpose and Scope

This document includes the software details, detailed user interfaces and detailed data model of our project which we planned earlier. Also, in this document, there are class diagram and sequence diagrams of our system. We aim to have a better understanding of the system with this document.

2.2 Document Overview

This document contains information that will make the stage of our system more understandable by the stakeholders.

In the 3rd chapter of this document, we explained the restrictions and decisions of our application.

In the 4th chapter, there are class diagram, sequence diagrams of every use case, ER diagram of our system and interfaces of use cases.

In the 5th chapter of this document, there is requirement-class traceability matrix

2.3 System Overview

Our project is to create a sports center web application. In this application, the members are divided into trainer and student. In this application, user specific features are available. For example ,add course, get personal data, set progress etc...

Within the constraints we have specified, we aimed to enable users to quickly handle sports center automatically. We have defined operations according to the user types in our system which is designed based on MVC system architecture so that the library work will be more organized.

2.4 Definitions, Acronyms, and Abbreviations

etc:et cetera, it is used to avoid giving a complete list

MVC:Model-View-Controller software architectural pattern.

SRS:System-wide Requirement Specification document

2.5 References

The following documents have been referred to in this document:

1. Project Plan and Vision, Version No: 1.0 Version Date:
2. System-wide Requirements Specification, Version No: 2.0 Version
3. Architecture Notebook, Version No: 3.0 Version

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3. Design Constraints and Decisions

Our system will be designed to easily add and update features later on. The interfaces will be similar to each other, so that a simple and user-friendly interface will be designed so that the user can easily understand and use the system.

Our system will be made as a web application that can be used 7/24 in any operating system. We will use the MVC architectural pattern. Our system depends on the MySQL database. Therefore, the performance of our system will depend on the speed of queries retrieved from the database and on the algorithm of the code written. In case of wrong password entry etc.

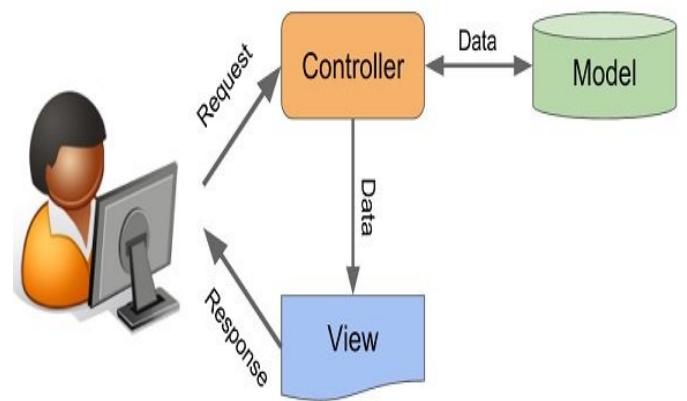
4. Design Details

We use Model-View-Controller (MVC) pattern to describe our Sport Center System. MVC is a software architectural pattern for implementing user interfaces on computers. It divides a given application into three interconnected parts.

Controller: Controllers are the components that handle user interaction, work with the model, and ultimately select a view to render that displays UI. For example, the controller handles query-string values, and passes these values to the model, which in turn might use these values to query the database.

View: The view manages the display of information.

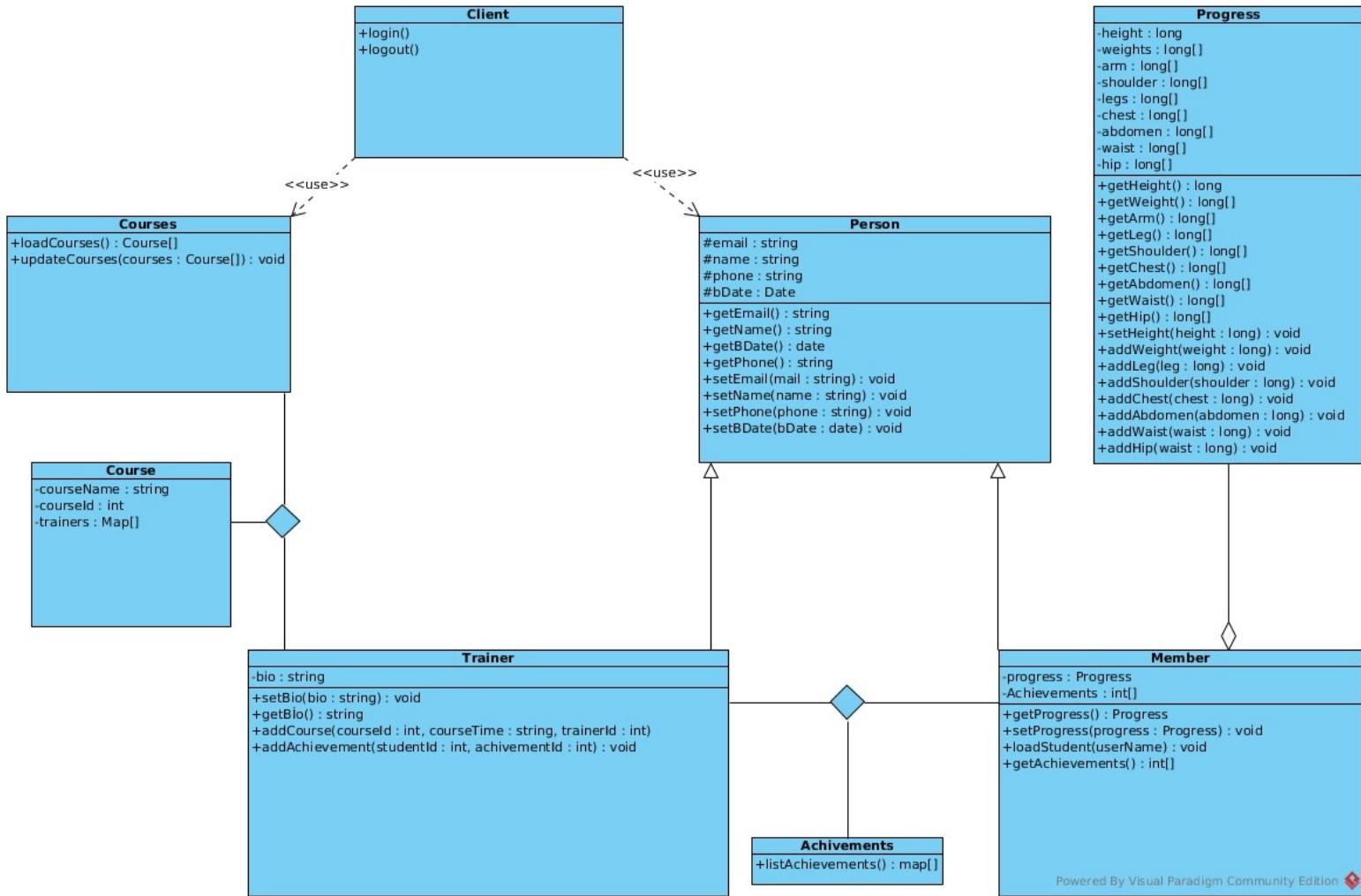
Model: The model manages the behavior and data of the application domain, responds to requests for information about its state (usually from the view), and responds to instructions to change state (usually from the controller).



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4.1 SoftwareComponents

Class diagram of our system is as following:



4.2 SoftwareBehavior

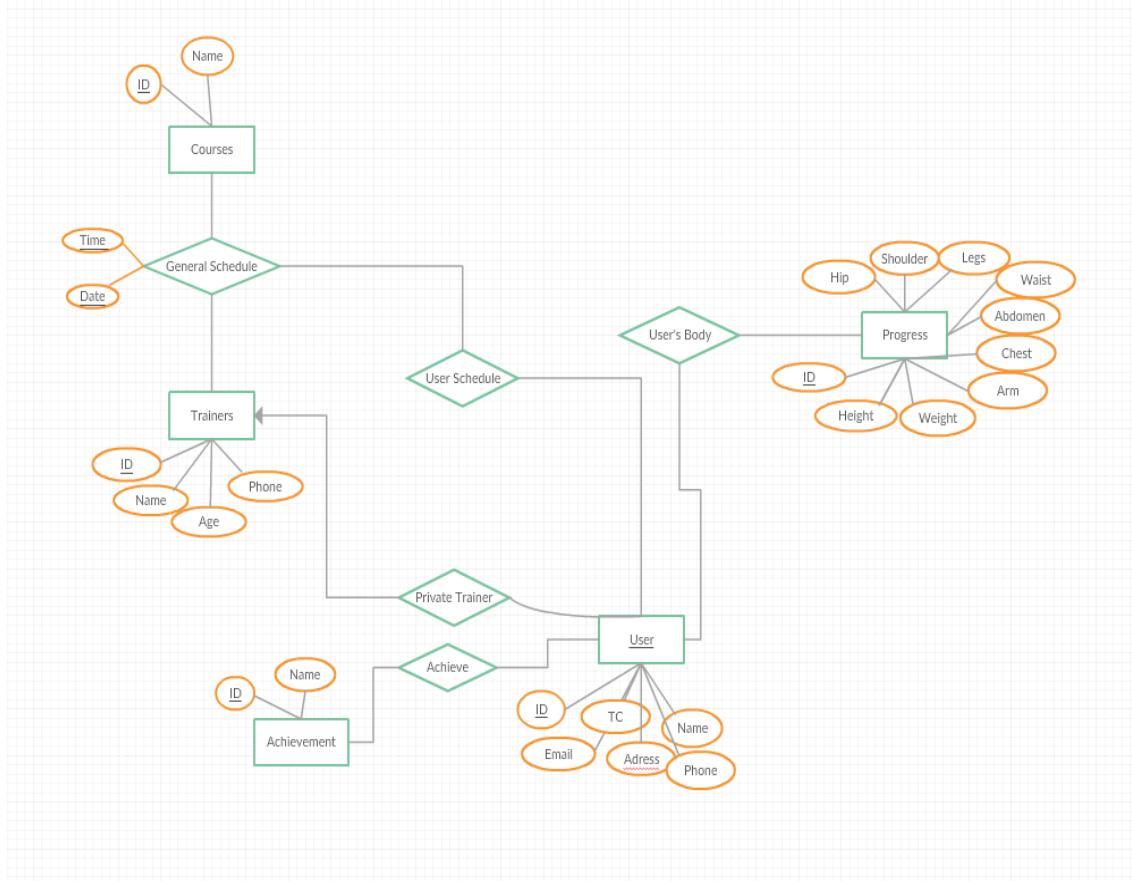
The sequence diagrams of the use cases we have described in the System-wide Requirement Specification(SRS) document are found in Appendix A.

4.3 Data Model (E-RDiagram)

Our database tables are as following.

E/R diagram of our system is not changed. It is as following.

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4.4 User InterfaceDesign

The interfaces we have specified in the SRS document are developed and detailed in Appendix B.

5. Requirements Traceability

Note: Numbers in the table is refers to requirements. Requirements number table is in the below.

Requirement/Class	1	2	3	4	5	6	7	8	9	10	11	12
Achievements.java				X						X		
Client.java	X	X										
Course.java							X	X	X			
Courses.java							X	X	X			
DatabaseBean.java	X	X	X	X	X	X	X	X	X	X	X	X
LoginBean.java	X											
Member.java				X	X	X	X			X		
Memberbean.java						X	X					
Person.java	X	X										
Progress.java				X						X		
Trainer.java							X		X	X	X	X
TrainerBean.java							X		X	X	X	X

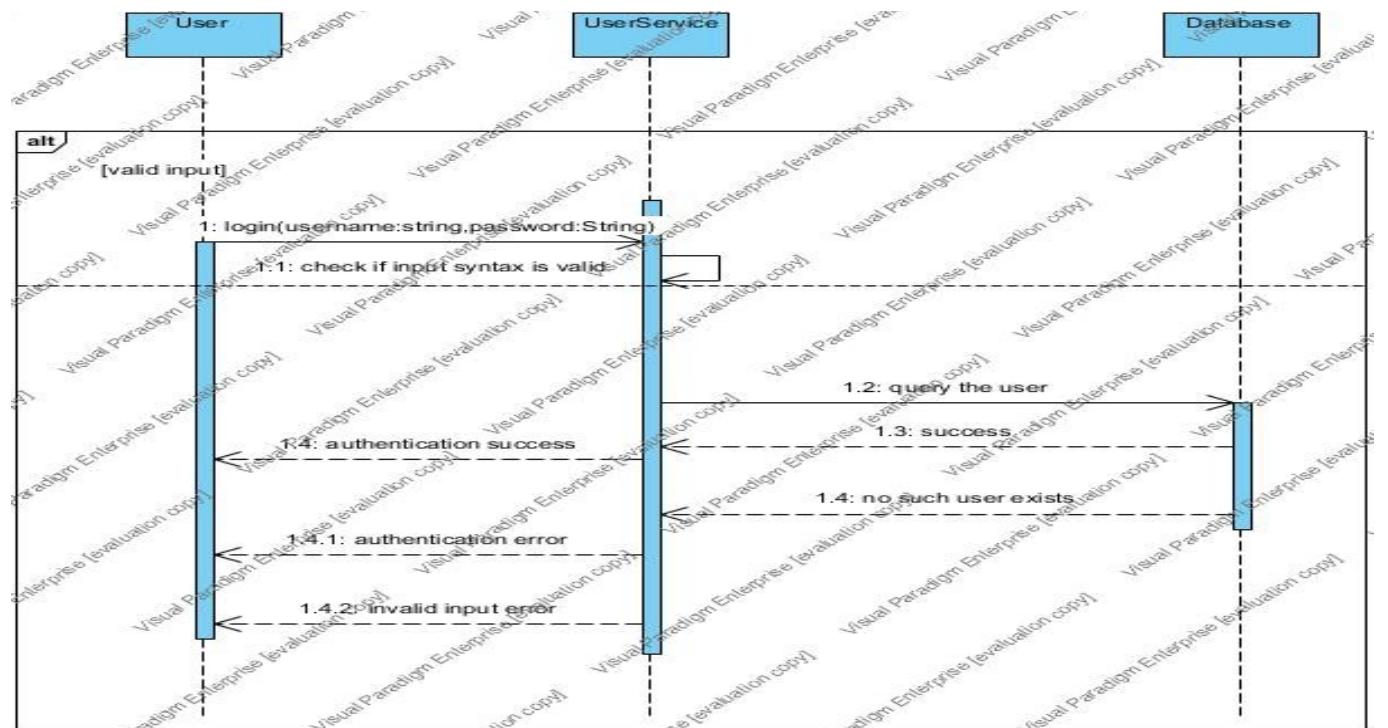
No	Requirement
1	Login
2	Logout
3	Load Student
4	Get Progress
5	Set Personal Data
6	Get Personal Data
7	Add Course
8	Load Course
9	Update Course
10	Set Progress
11	Set Biography
12	Get Biography

6. Annexes

- AppendixA
- AppendixB

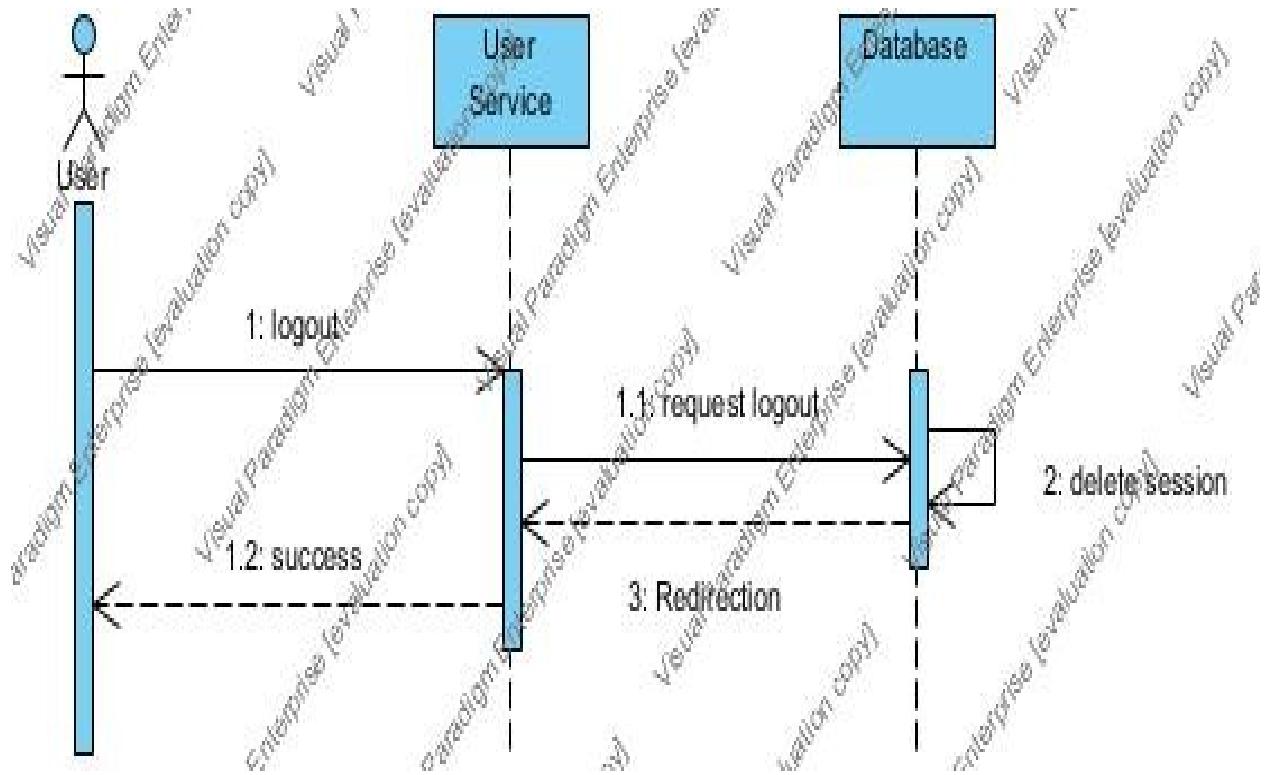
AppendixA:

- Login:

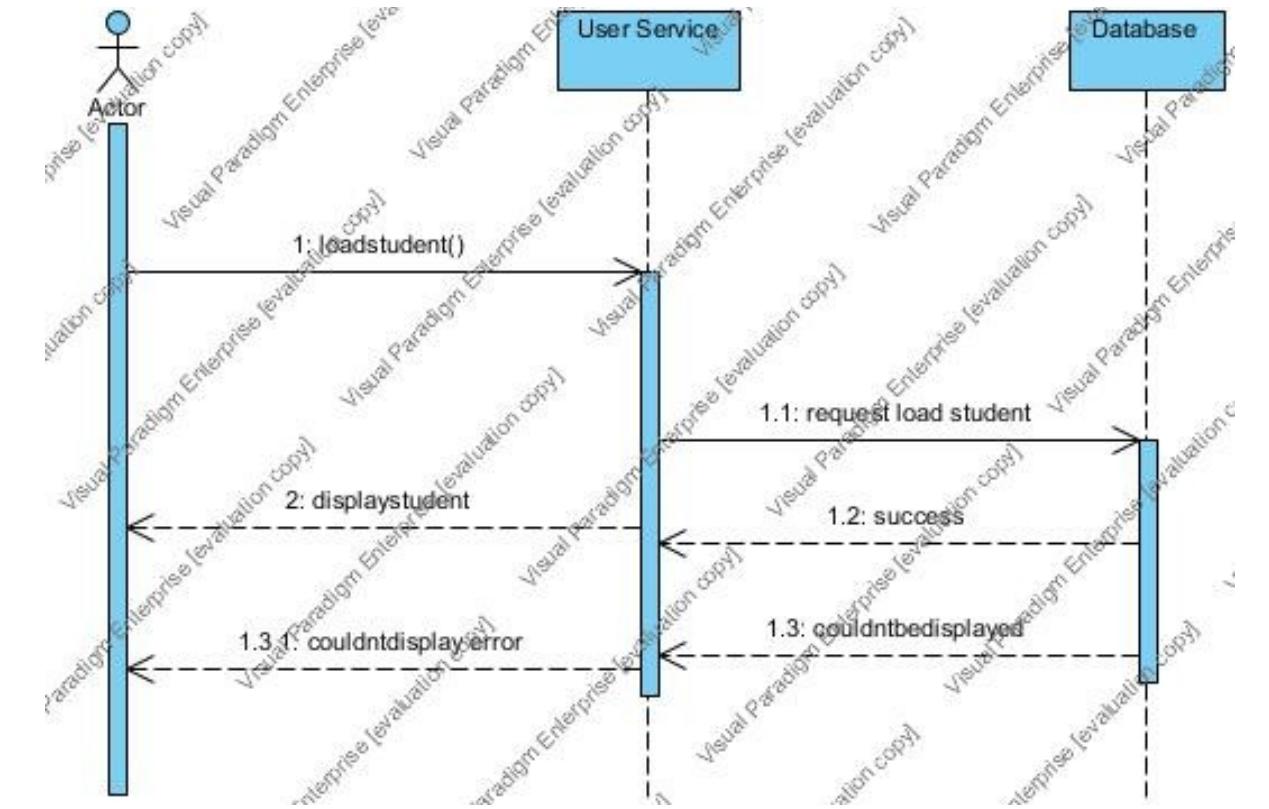


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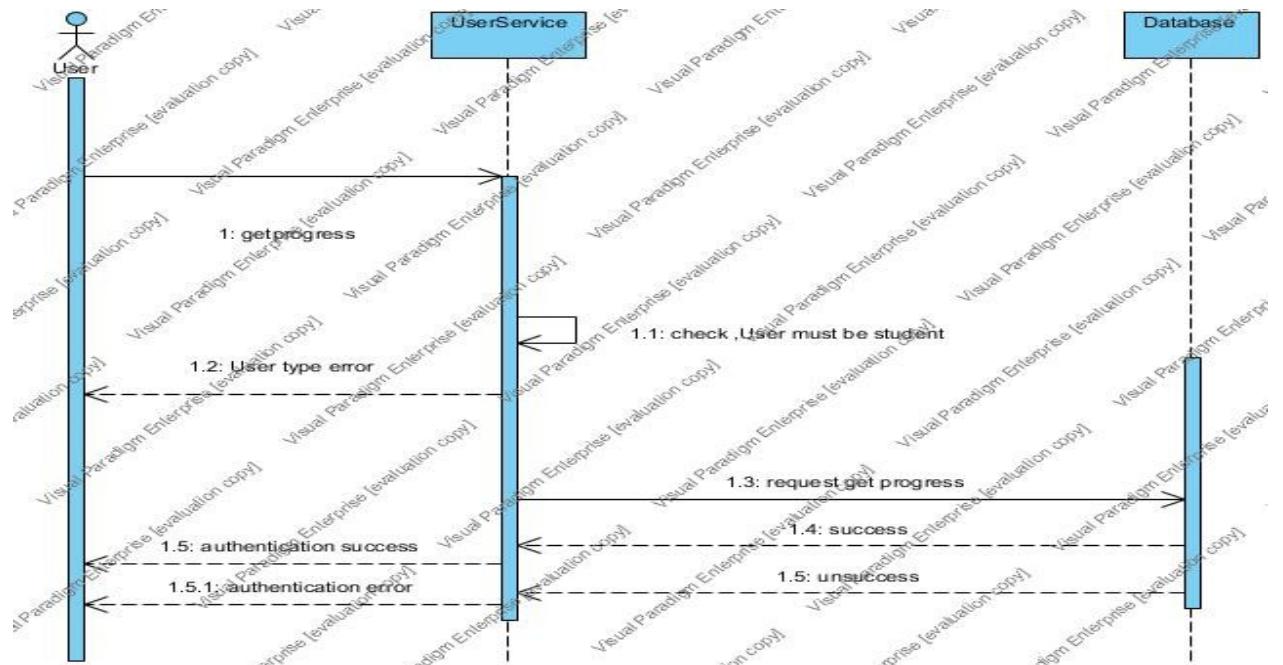
Logout:



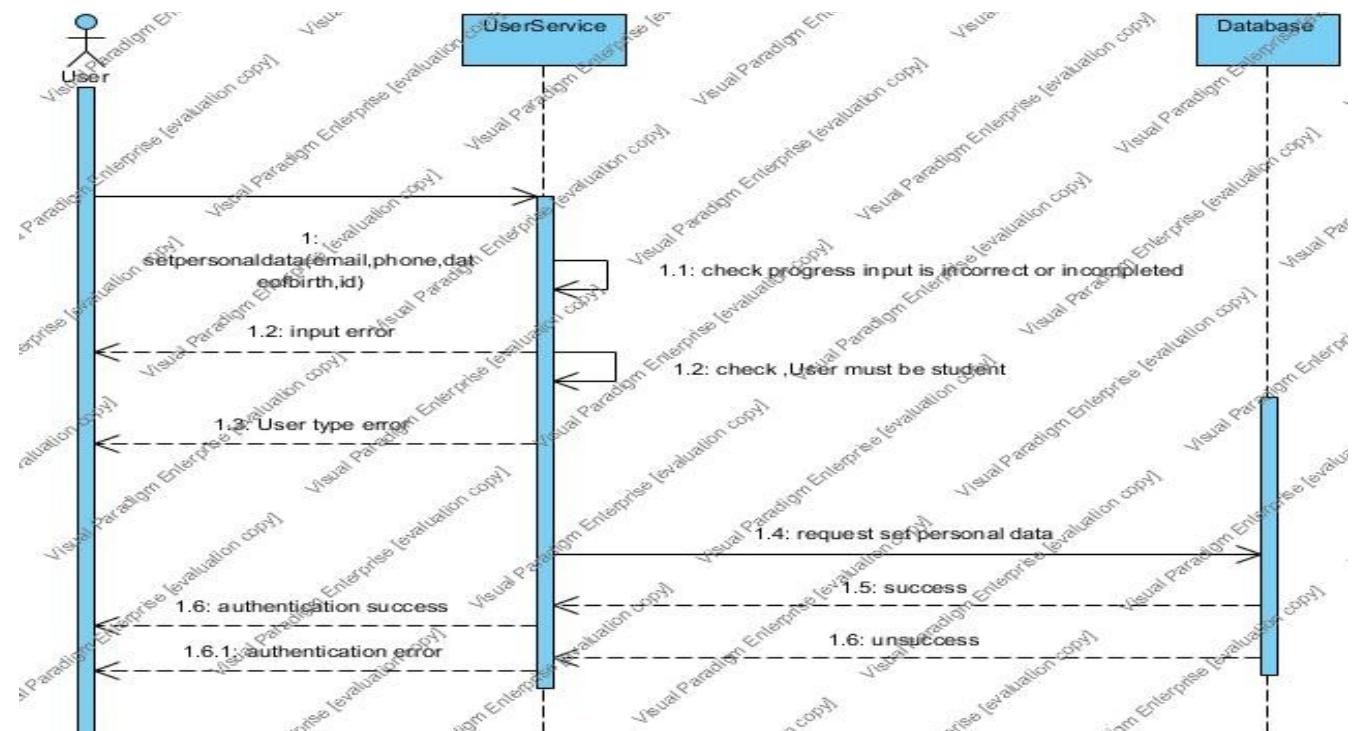
Load Student:



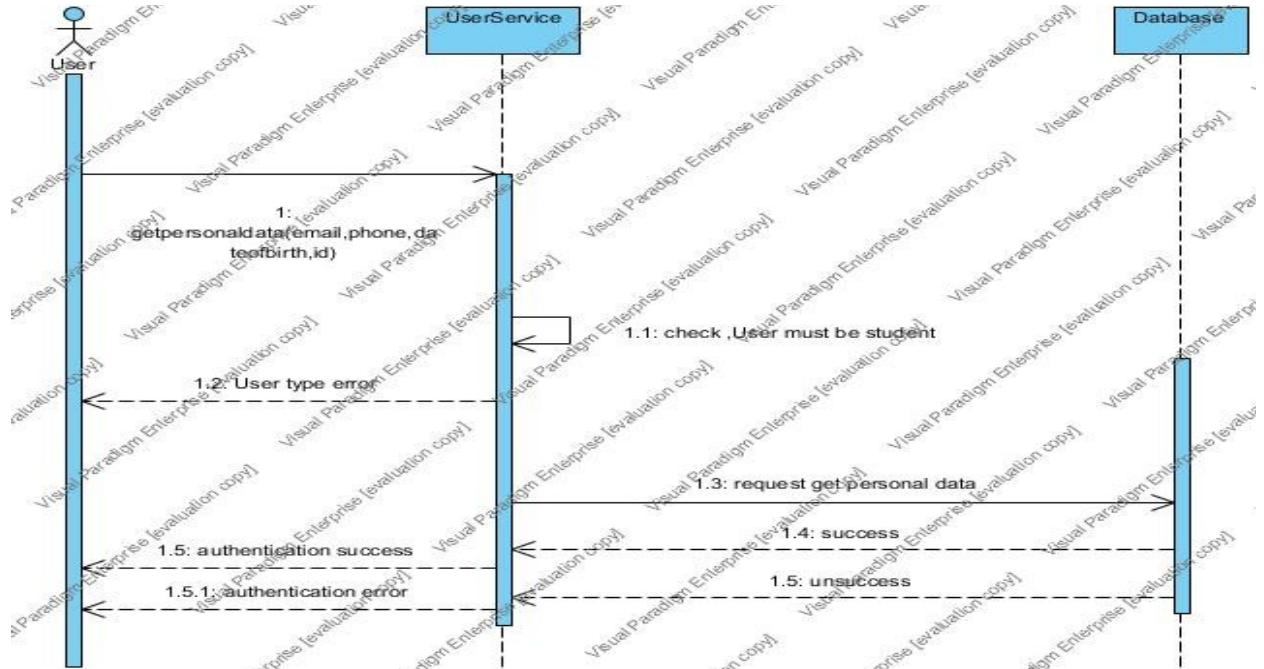
Get Progress:



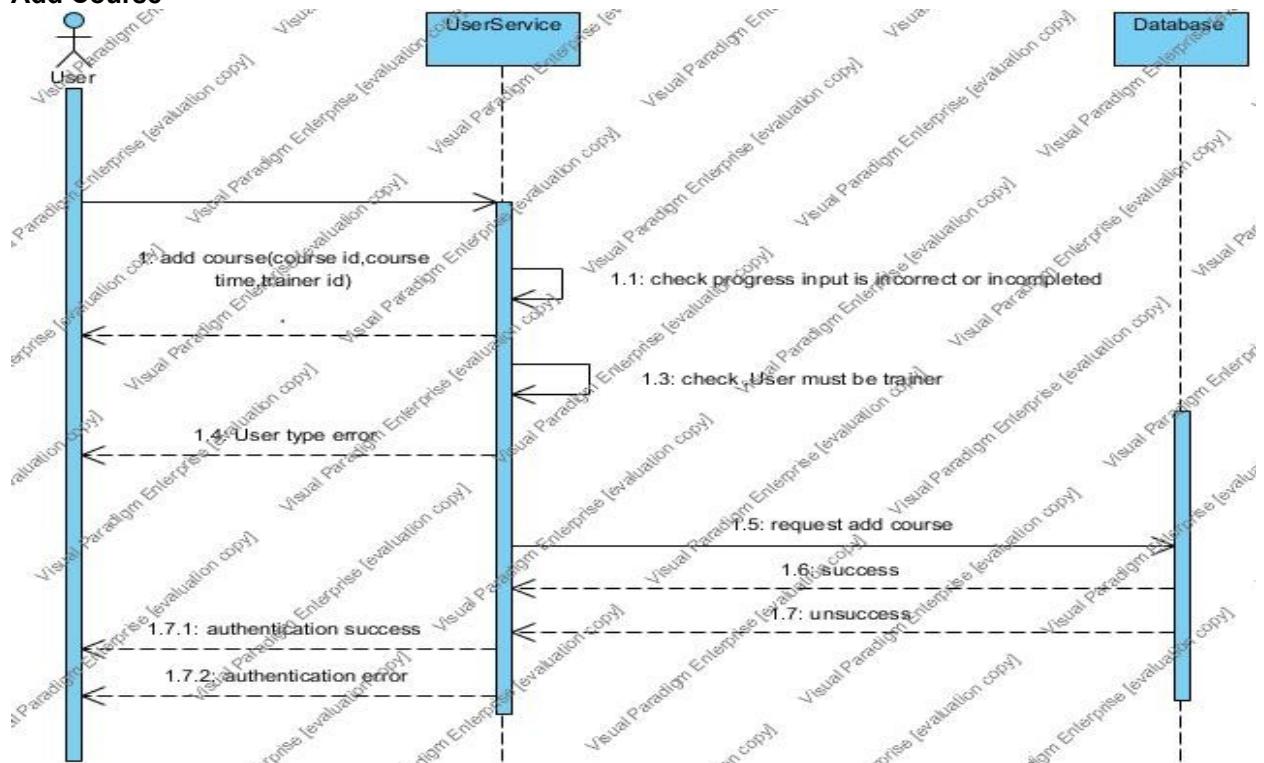
Set Personal Data:



Get Personal Data:

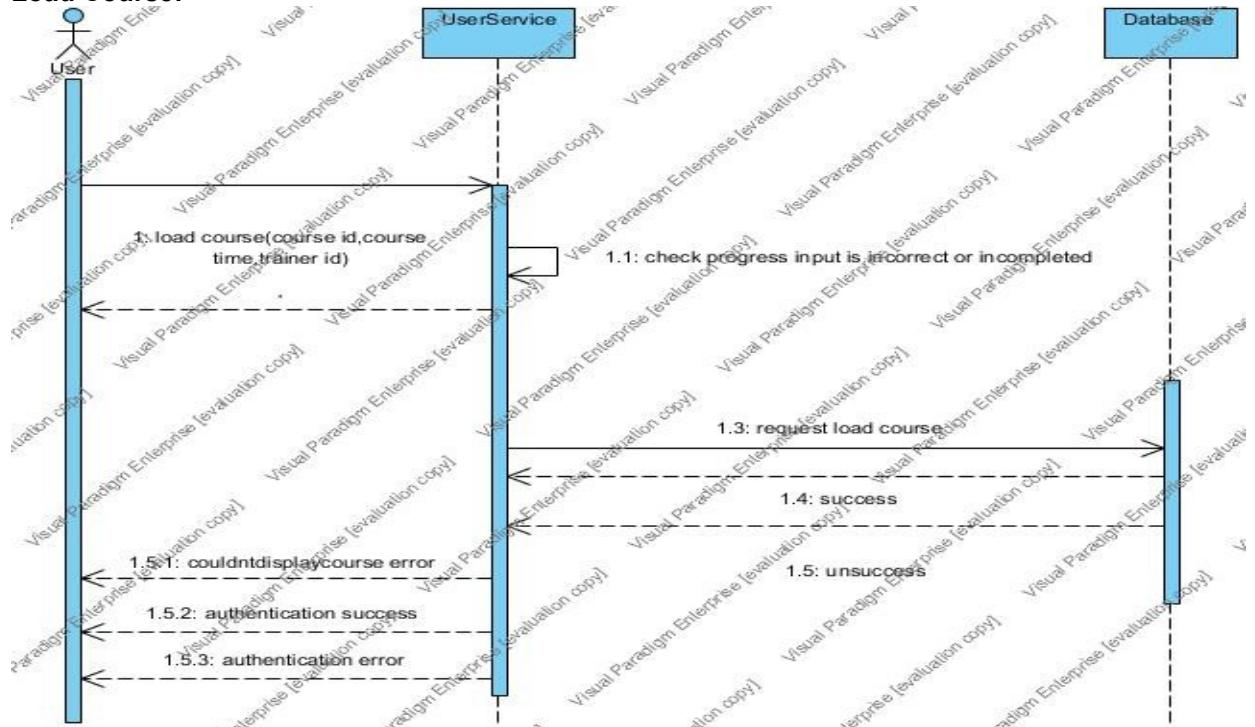


Add Course

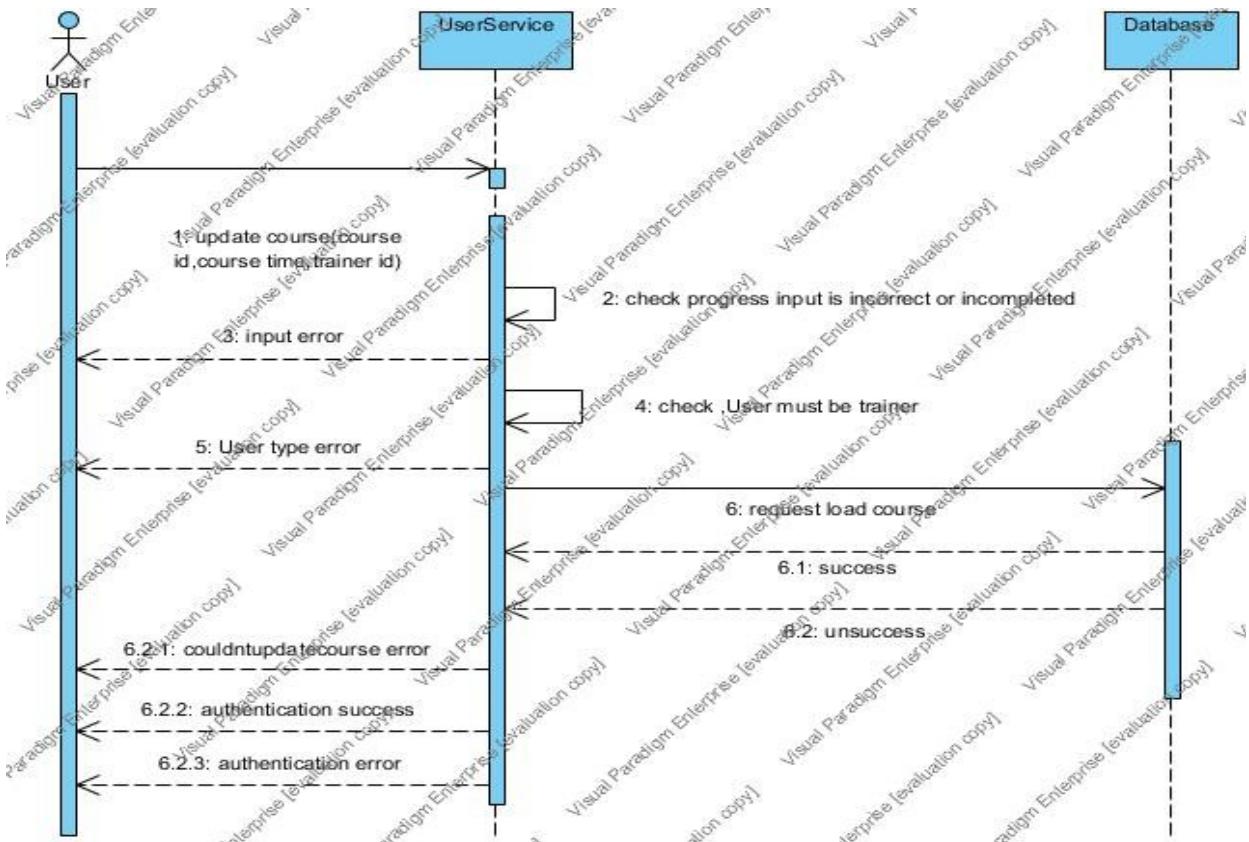


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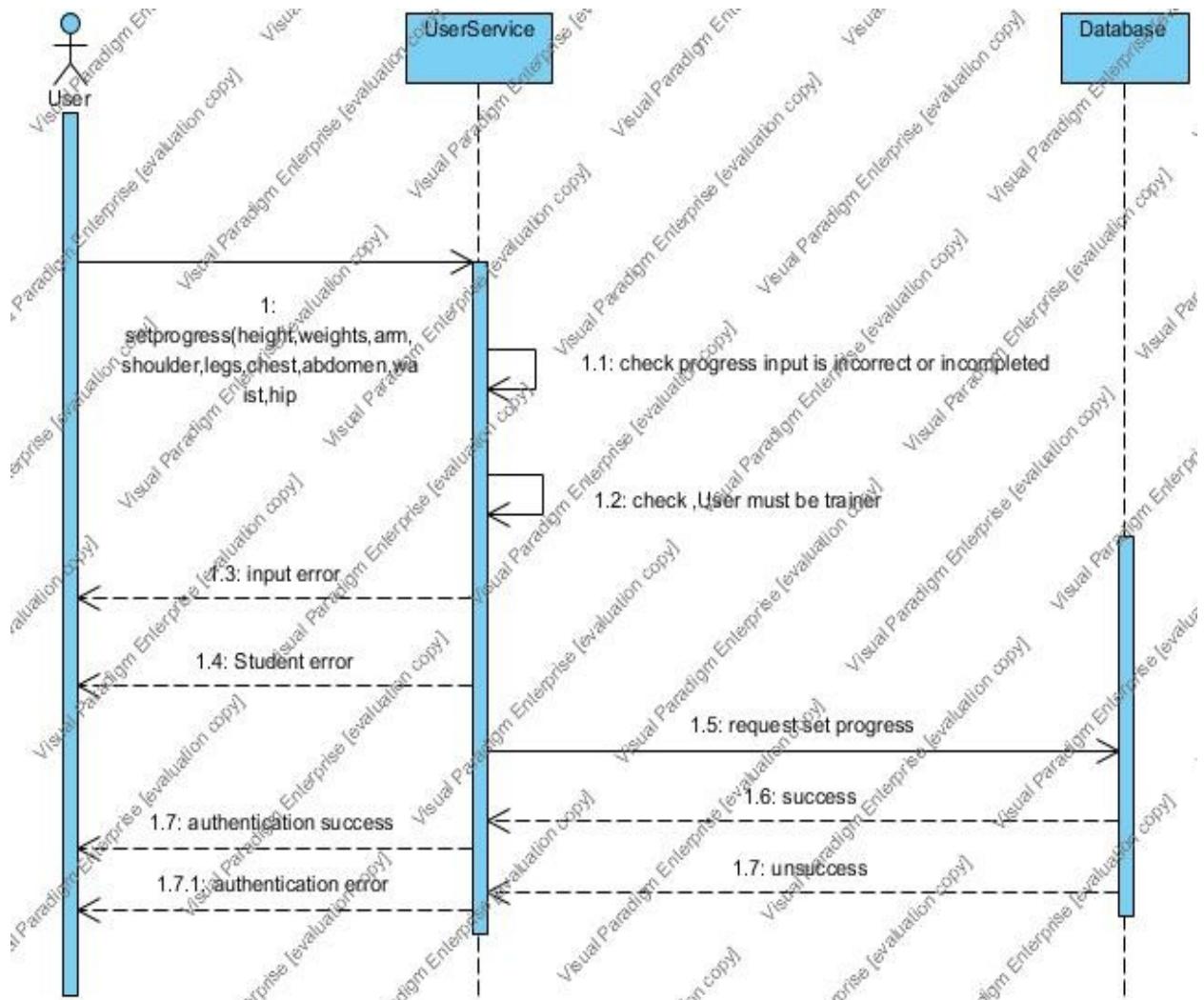
Load Course:



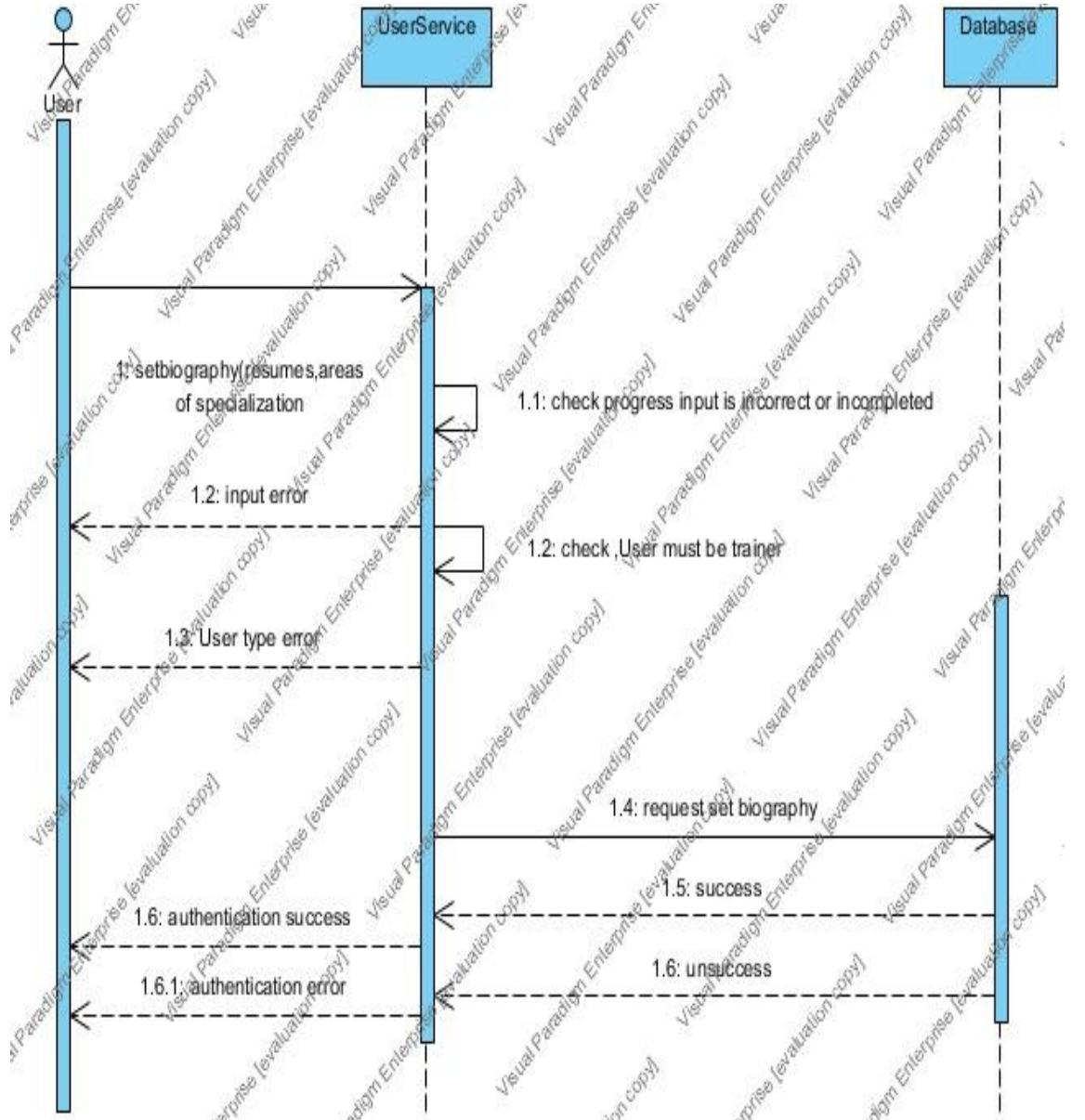
Update Course:



Set Progress:

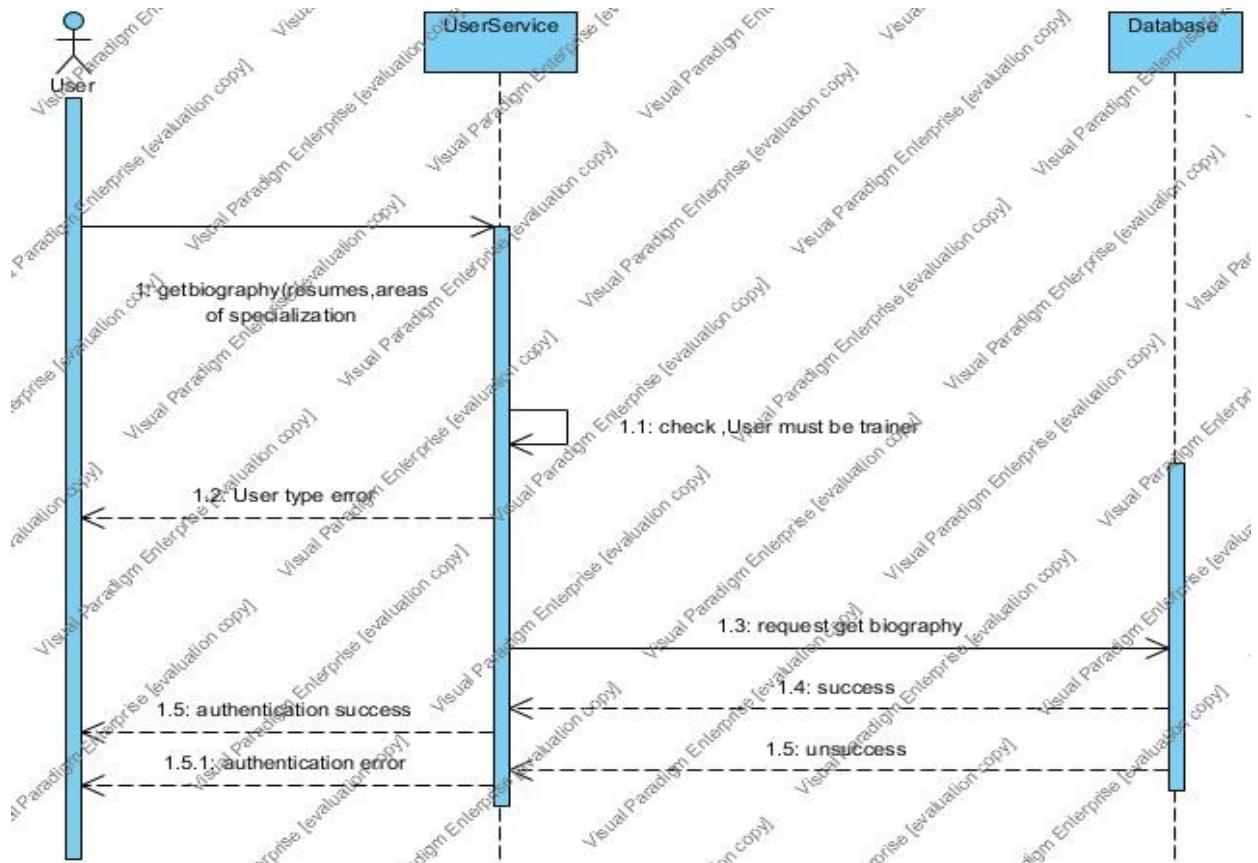


Set Biography:



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Get Biography:



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Appendix B:

GUI VISUALS:

Pepefit is an app that makes sure that you achieve your dream body, and fulfil your fitness goals. With pepefit, you can track your progress for your weight, and muscle growth. For joining pepefit, visit your nearest pepefitness center.

Username Password Login
Forgot your password?

Pepefit

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The screenshot shows a software application for managing fitness courses. At the top, there are tabs for 'Courses' and 'Students', a logo of a green cartoon character, and a gear icon for settings. Below the tabs, the main content area displays a course named 'Body Fit' scheduled for '14.03.2018'. A button labeled 'A şubesi' with a lock icon is visible. The interface includes fields for 'Time:' and 'Capacity:', and a green 'Add Course' button. Below these, three instructors are listed with their respective availability times:

Instructor	Available Times
Aziz Binici	10.00-12.00, 12.30-14.30, 15.00-17.00, 17.30-19.30
Nida Teke	18.00-20.00, 20.30-22.30
Sadi Yılmaz	9.00-11.00, 11.30-13.30

On the left side, a sidebar lists various course categories: Mac Stronger, GFX, Fit Step, Fit Attack, Fit Dance, Exp. Cycling, Cycle, Yoga, Pilates Studio, Energy Step, Zumba, Abs Crunch, and Crunch and Burn. At the bottom of the screen, there are links for 'About us' and 'Contact'.

The screenshot shows a software application for a fitness center. At the top, there are tabs for "Courses" and "Personal". A user icon of a green cartoon character is in the top right. Below the tabs, a sidebar on the left lists various fitness classes: Body Fit, Mac Stronger, GFX, Fit Step, Fit Attack, Fit Dance, Exp. Cycling, Cycle, Yoga, Pilates Studio, Energy Step, Zumba, Abs Crunch, and Crunch and Burn. The main content area displays a course titled "Body Fit" for the date "14.03.2018". It shows three instructors with their availability: Aziz Binici (10.00-12.00, 12.30-14.30, 15.00-17.00, 17.30-19.30), Nida Teke (18.00-20.00, 20.30-22.30), and Sadi Yilmaz (9.00-11.00, 11.30-13.30). A "Register" button is at the bottom right. At the very bottom, there are links for "About us" and "Contact".

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Courses Personal



Name:

Birthday:

E-mail:

Phone:

About us Contact

Courses

Students

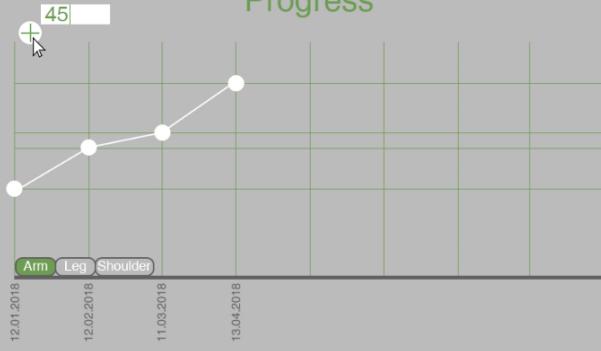


Students

Seth Lloyd

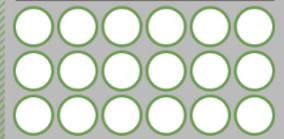
Leon Duran
Maya Patterson
Thomas Evans
Harry Ramirez
Kelly Wise
Chase Bowman
Deja Holt
Franklin Sherman
Rashad Palmer
Jaime Hunt
Darren Porter
Thomas Adams
Karl Yates
Cassandra Reid
Nancy Bradley
Charlotte Frazier
Kylee Cohen
Aaliyah Lang
Kameron Robbins
Leonard Howell
Raymond Gilbert
Callie McGee
Marisol McCarthy

Progress



Achievements

- Do 1000 push-ups
- Do 500 push-ups
- Do 30 minutes of plank
- Do 500 sit-ups



The screenshot shows a software application for managing fitness courses. At the top, there are tabs for "Courses" and "Students", and a small green cartoon character icon. On the far right, there is a gear icon.

The main content area displays course details for "Body Fit" on "14.03.2018". It includes fields for "Time:" and "Capacity:", and a button labeled "Add Course". Below this, three instructors are listed with their available times:

Instructor	Available Times
Aziz Binici	10.00-12.00, 12.30-14.30, 15.00-17.00, 17.30-19.30
Nida Teke	18.00-20.00, 20.30-22.30
Sadi Yılmaz	9.00-11.00, 11.30-13.30

On the left side, there is a sidebar with a list of course categories:

- Body Fit
- Dumbell ve step boardların kullanımıyla kadınlarda koordinasyonu güçlendirme, karnın ve kalça kasalarını...
- Mac Stronger
- GFX
- Fit Step
- Fit Attack
- Fit Dance
- Exp. Cycling
- Cycle
- Yoga
- Pilates Studio
- Energy Step
- Zumba
- Abs Crunch
- Crunch and Burn

At the bottom of the screen, there are links for "About us" and "Contact".