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# FINAL REPORT FOR HOCAM NEREDE APPLICATION

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# 1 INTRODUCTION

## 1.1 Purpose

This final report document describes how “Hocam Nerede” will look like. It visualizes how the system will be and makes the expected application more understandable.

## 1.1 Scope

The system is aiming to bring together people who want to give private course and who want to take courses. Teachers will be rated by students so everyone who used the system can decide which teacher is better to meet up.

## 1.2 Overview

This document is intended to give information to the user about the purpose of the application.

## 1.3 Constraints

The system will be available on android and IOS and also on web browsers.

# 2 SYSTEM OVERVIEW

## Hocam Nerede

Hocam Nerede is an application that allows teachers to easily create and manage their courses and creates meeting with students who want to take private course. Hocam Nerede was designed for all of the Turkish citizens at the first. The students can comment their teacher after the course and in this way, if the teacher does not a good teacher, the students will be understood that the teacher is a bad teacher. The system is aiming to bring together students and people who want to give private course. There are 2 account types. These are student and teacher. Teachers determine their own lesson price. Users can rate and comment their tutors after private lesson. To ensure that some notifications will be shown to users at the finish time of lesson. Teachers will be sorted according to their rate. Teachers can show their profession and department in their own profile. Students sign in to the system then choose their location and lesson of interest and after that choose their tutor.

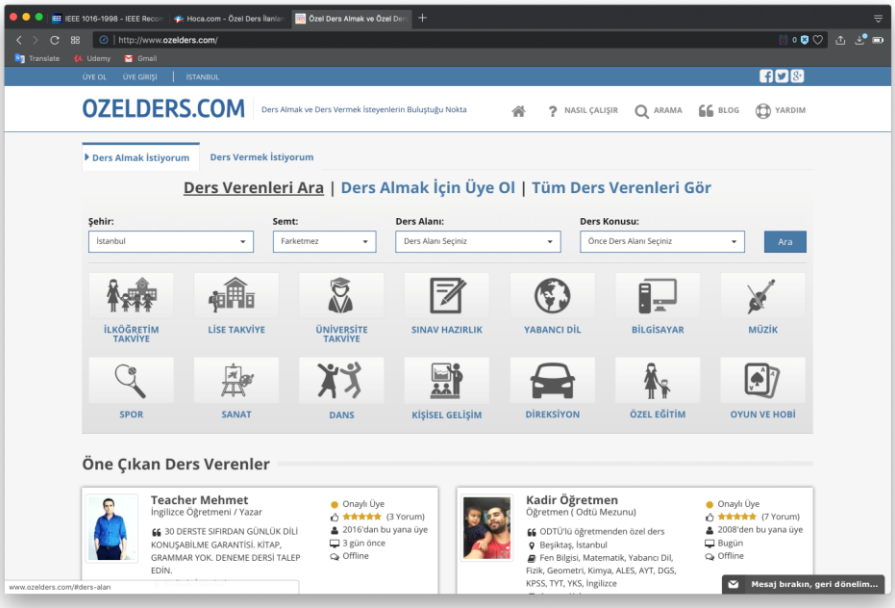
## Background Study

We analyzed several similar applications and we thought what we can add extra. We come to that conclusion there are several mobile applications available to android and IOS. Also, there are several active web pages that brings together people who are teacher and student.

If we look at those applications, we have the following results.

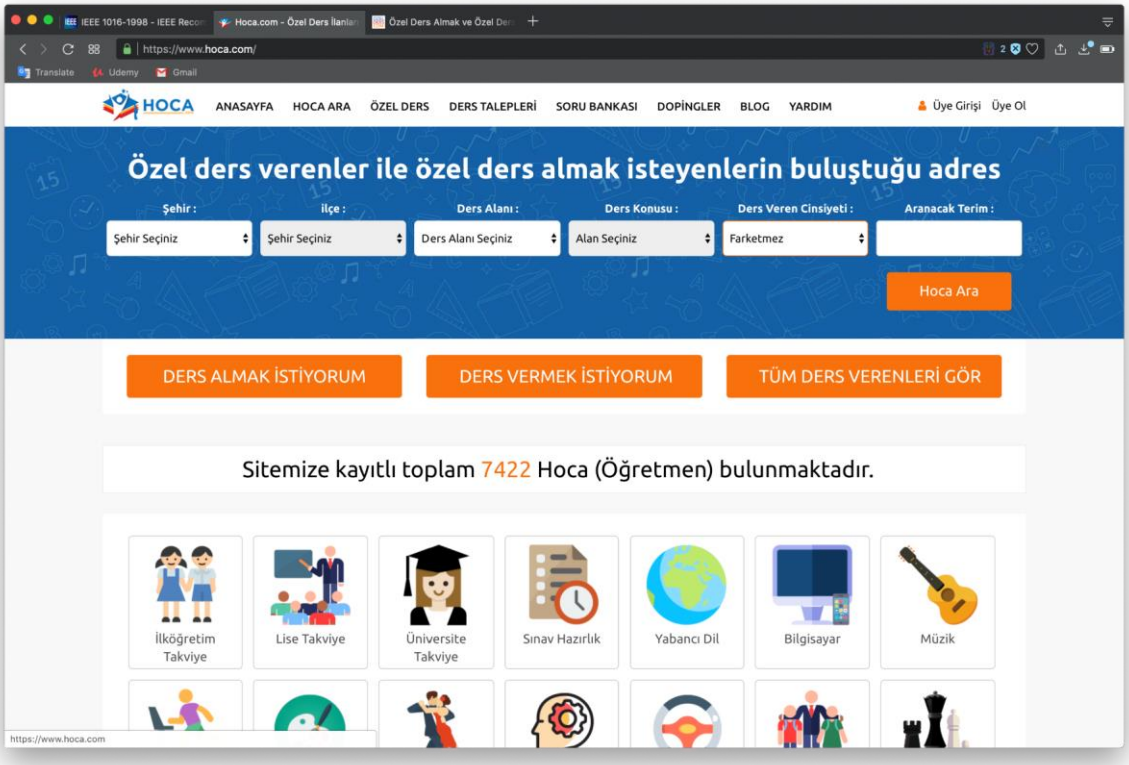
- **OZELDERS.COM**

Özel ders is an application that one of the active web applications. This Web application is very similar to Hocam Nerede in terms of functionalities. But we are aiming to develop Hocam Nerede as a mobile application.

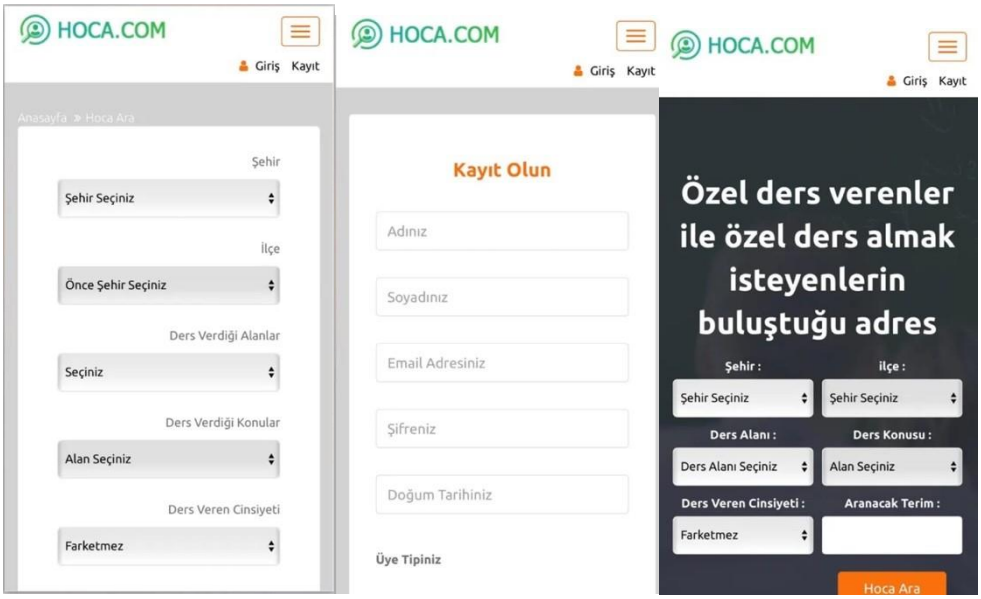



- **HOCA.COM**

  This web application also has a mobile app but its only available for android devices. Colors are more vivid. Design of this web application is more characteristic than the design of the OZELDERS.COM.

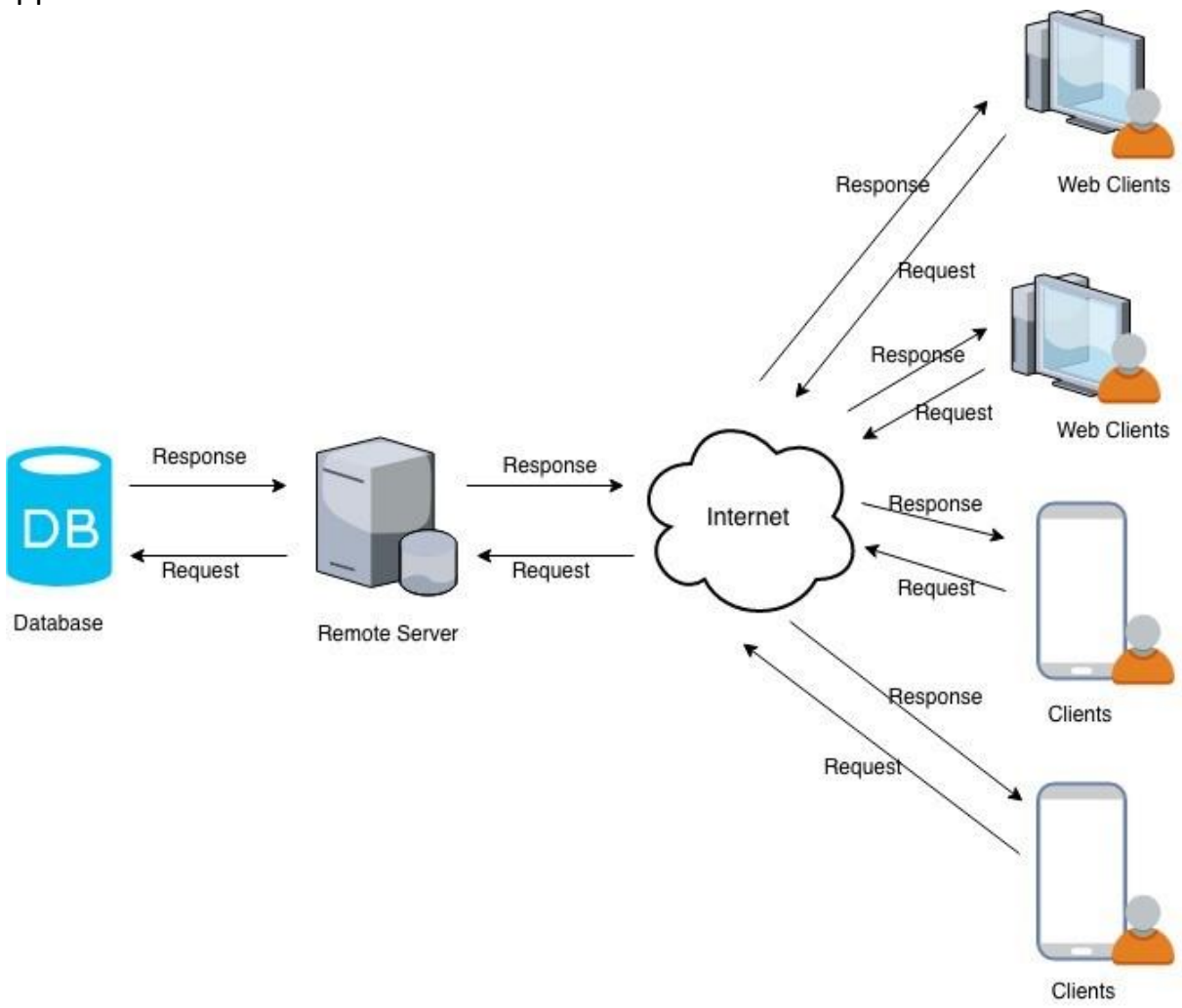



- **Mobile Application for HOCA.COM**



# 3 PROJECT DETAILS

As shown on the figure 5, server stores the database and web application. The server uses a network to share information and applications. Clients access application via internet.




## 3.1 Description of the Design Components

Database: A database is an organized collection of data. It is the collection of schemas, tables, queries, reports, views, and other objects.

Remote Server: The presentation tier consists of HTML, CSS and JavaScript, the application logic tier runs on a web server in form of ASP.NET, PHP etc., and the data tier consists of a database of some kind (mysql, postgresql, a noSQL database etc.).
Internet: A means of connecting a computer to any other computer anywhere in the world via dedicated routers and servers.

Clients: The terms imply the entire user machine or refer to a handheld device that provides Web access.

## 3.2 Design Rationale:

Remote Server:
We choose a cloud server model to achieve a more cheaper and maintable system by using layered architecture.

Mobile:
Smart phones are much easier to carry than the tablets. Also, they are extensively used and our system needs a smart phone to read the QR code to achieve communications. No other alternative technology is used as much as mobile systems.

## 3.3 Hardware Environment

- Intel Core i7 Processor
- 1TB HDD + 250 GB SSD
- 16GB RAM
- NVIDIA GT 720 GPU
- AMD RADEON PRO 555 GPU

## 3.4 Software Environment

### 3.4.1 Development Tools

- Visual Studio IDE
- Visual Studio Code IDE
- Atom IDE
- Android Studio for an android device emulator
- XCode for an IOS device emulator
- File Zilla
- Termius SSH Client

### 3.4.2 Programming Languages

- PHP
- React Native
- .NET Core
- C#

### 3.4.3 Database

Mysql shall be used as the system's database management system.

### 3.4.4 Operating Systems

- Windows 10 and Windows 8.1
- Mac OS Mojave

# 4 Data Design

## 4.1 Functional

### 4.1.1 Student Actions

**FS1:** Student should open the website or mobile application system. There are 3 options such as open by website, open by android and open by IOS.
**FS2:** Student downloads mobile application to phone.
**FS3:** Student should register to system.
**FS4:** Student should login to the system.
**FS5:** Student should search for a course.
**FS6:** Student should choose teacher for that specific course.
**FS7:** Student should make contact to teacher via telephone number or E-mail address displayed on teacher's profile.
**FS8:** Student should scan QR code generated on teacher's system.
**FS9:** Student should rate and comment the taken course.
**FS10:** Student should logout the system.

### 4.1.2 Teacher Actions

**FT1:** Teacher should open the website or mobile application system. There are 3 options such as open by website, open by android and open by IOS.
**FT2:** Teacher should register and login to the system.
**FT3:** Teacher should view current course list.
**FT4:** Teacher should edit profile information.
**FT5:** Teacher should edit course information and schedule.
**FT6:** Teacher should open QR code generator on system.
**FT7:** Teacher should answer the comments of His/Her course. **FT8:** Teacher should logout the system.

### 4.1.3 Hocam Nerede System Actions

**FH1:** Hocam Nerede system should provide registration form for users. **FH2:** Hocam Nerede mobile system should redirect teachers that want to register to Hocam Nerede web registration site.
**FH3:** Hocam Nerede system should send verification E-mail to admin.
**FH4:** Hocam Nerede system should send information E-mail.
**FH5:** Hocam Nerede system should send confirmation E-mail.
**FH6:** Hocam Nerede system should generate QR code.
**FH7:** Hocam Nerede system should enroll the student to that course after scaning of QR code that generated on teacher's mobile system.

**FA8:** Hocam Nerede system should not allow the course and teacher information to non-logged visitors to see.
**FA9:** Hocam Nerede system should calculate weighted average of given rates to teacher and course.
**FA10:** Hocam Nerede system should show top rated teachers.

#### 4.1.4 Administrator Actions

**FA1:** Admin should verify teachers according to teacher's qualifications to register teacher to the Hocam Nerede system.
**FA2:** Admin shall create new categories

# 5 Detailed Design

## 5.1 Class Diagram

UML Class diagram for Hocam Nerede şs shown Figure 7. The various classes involved in the system are: Hocam Nerede class diagram occur 5 classes.

#### 5.1.1 Student Class

Student class is a User. This class includes common operations which are makeCall(), sendEmail(), sendComment(), searchCourse().This cclass has comment class.

#### 5.1.2 Teacher Class

Teacher class is also a User. This class includes operations and attributes that are different from the student class. These are job, birthday, rating, telephone, pictureURL, last seen and sex. Common operations are getJob(), getBirthday(), getDocument(), createCourse(). This class has comment and course class.

#### 5.1.3 Course Class

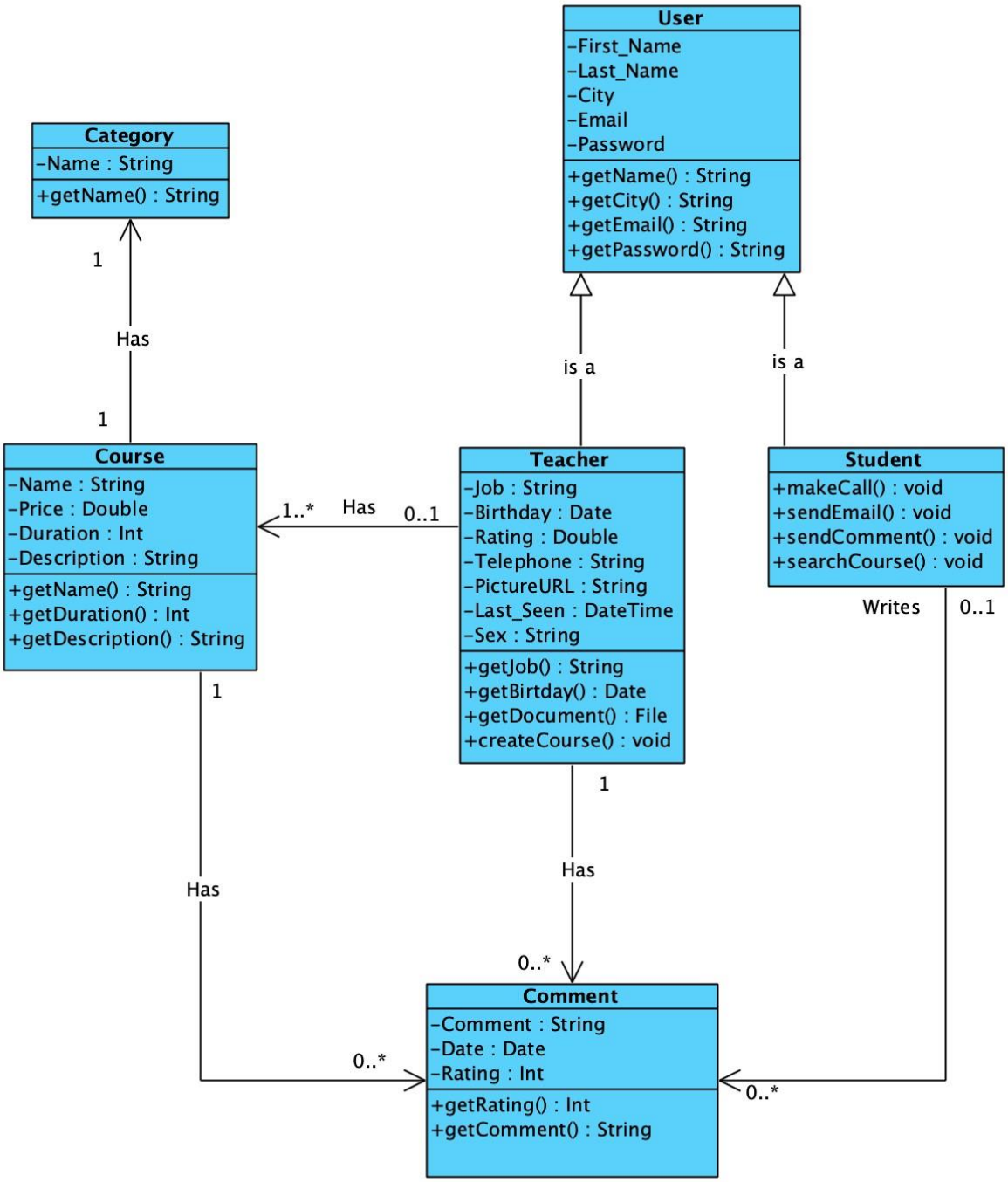
Course class includes operations and attributes. Common attributes are name, price, duration, description. Operations are getName(), getDuration(), getDescription(). This class has category and comment class.

### 5.1.4 Comment Class

Comment class includes the comment content, date and rating. Also includes some operations getRating() and getComment().

### 5.1.5 User Class

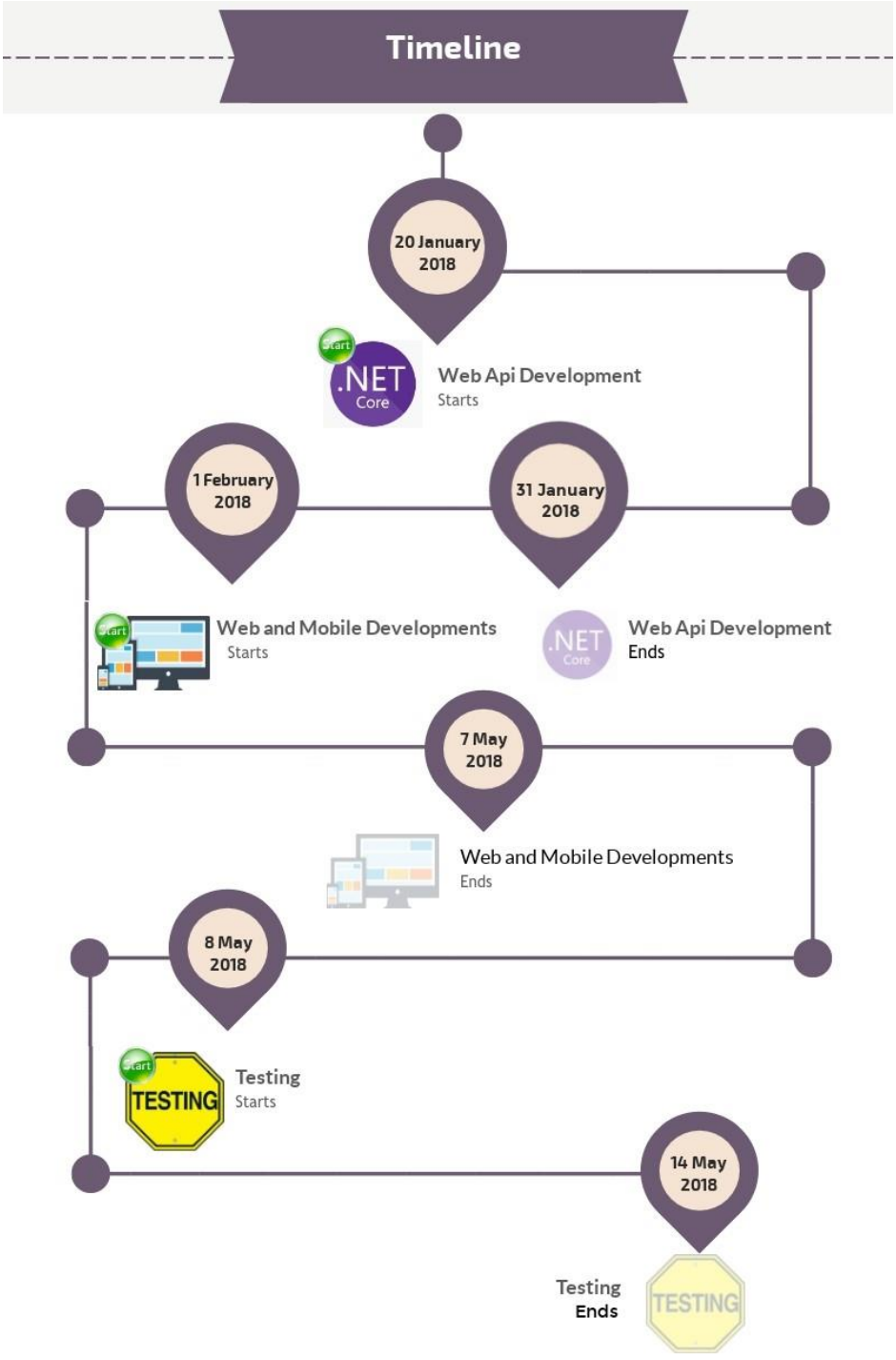
User is an abstract class. It keeps same attributes that has teacher and student. These are name, city, email and password. And the some operations will be same so this class includes getName(), getCity(), getEmail() and getPassword operations.



### 5.1.6 Timeline

We are planning implementation web API between January 20 and January 31, web and mobile application will be started at February 1 and will be finished at May 7,

After finish implementation, we are testing applications.



# 6 ASPECTS OF THE PROJECT

1. One of the features of the Hocam Nerede System is the self advertising for teachers, thus teachers does not have to print and hang banners to bus stops, traffic lights and billboards. So waste of paper is avoided.

2. Hocam Nerede system opens a new market for education purposes by allowing independent teachers a chance to express themselfs to the society.

3. Hocam Nerede is not just a education application, its also a social network and facilitates private tuition for students.

4. There is one ethical issue that some registered teachers may not be like they have described themselfs in the Hocam Nerede application and this may be a disappointment for the students who will take special course from that specific teacher.

# 7 CONCLUSION

According to our backgorund study there is a specific need for a special course taking application and Hocam Nerede system is aiming to bring together students and people who want to give private course.

# 8 REFERENCES

IEEE 1016-1998 – IEEE Recommended Practice for Software Design Descriptions.

https://www.leanmethods.com/resources/tools-templates/