



ÇANKAYA UNIVERSITY

FACULTY OF ENGINEERING COMPUTER ENGINEERING DEPARTMENT

## Project Report

Version 1

CENG 407

*ANKADES-Educational Social Sharing Platform*

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## Abstract

Nowadays there are many personal and educational institutions. Educational platforms and virtual laboratories are becoming an increasingly important component in the teaching process, especially for technical teaching. Nowadays, the development of educational technology knowledge provides an advantage in preventing deficiencies and providing effective information learning. Developing a forum and social platform system accessible to educators and students will help improve this quality of education. ANKADES Educational Social Sharing Platform (AESSP) provides information about the course, and the students can access open resources here for their research. In general, these systems are actively used abroad, there is no using of such a system in Turkey. The aim of this project is to create a social platform and a learning platform where everyone can access the data they want. This will be an easily accessible platform for all instructors, students and anyone who can use this system.

**Key Words:** *E-Conferencing, E-Learning, Managed Learning Environment, , Virtual Learning environment*

## Özet:

Bugünlerde birçok kişisel ve eğitim veren platformlar var. Eğitim platformları ve sanal laboratuvarlar, özellikle teknik öğretim için öğretim sürecinde giderek daha önemli bir bileşen haline gelmektedir. Günümüzde, eğitim teknolojisi bilgisinin geliştirilmesi, eksikliklerin önlenmesinde ve etkili bilgi öğreniminin sağlanmasımda bir avantaj sağlamaktadır. Eğitimciler ve öğrenciler için erişilebilir bir forum ve sosyal platform sistemi geliştirmek, bu eğitim kalitesinin iyileştirilmesine yardımcı olacaktır. ANKADES Eğitimsel Sosyal Paylaşım Platformu (AESSP) ders hakkında bilgi verir ve öğrenciler araştırmaları için açık kaynaklara buradan erişebilirler. Genel olarak, bu sistemler yurtdışında aktif olarak kullanılmaktadır, Türkiye'de böyle bir sistem kullanılmamaktadır. Bu projenin amacı, herkesin istediği verilere erişebileceğii bir sosyal platform ve bir öğrenme platformu oluşturmaktır. Bu, tüm eğitimmenler, öğrenciler ve bu sistemi kullanabilen herkes için kolay erişilebilir bir platform olacaktır.

**Anahtar Kelimeler:** E-Konferans, E-Öğrenme, Yönetilen Öğrenme Ortamı, Sanal Öğrenme Ortamı

## 1. Introduction

Web-based learning is one way to learn, using web-based technologies or tools in a learning process. In other words, learner uses mainly computers to interact with the teacher, other students and learning material.

Web-based learning is often referred to as online learning because it contains online course content. This system is common in the evolving Internet era. Communication via e-mail, video conferencing and live narration is possible on the web. These web-based courses are encouraging for learning. It is possible to reach these web-based learning sites on the Internet network. Learning is provided as printed course materials.

The virtual learning environment (VLE) is a learning platform that facilitates the student's learning experience. The main components of the VLE package are; easy-to-learn discussions, internet connections for chat, and web publishing. Provides an interactive learning. In general, VLE users use a teacher ID and a student ID. Teachers follow the student in the same way. The teacher has the authority to create the content that the student needs to learn.

New features in this system include learning environments such as wikis, blogs, tests, online training videos. These systems usually work with servers and allow students to learn on multimedia or web pages. In some programs, the virtual learning environment may resemble a face-to-face classroom environment, and even students can provide one-to-one dialogue with teachers. Students can show what teachers understand from their ideas. Today, many virtual learning environments provide teachers with the ability to test and share important documents (vocabulary, pdf information) directly to students, as well as to share multimedia files such as video and audio files.

A “virtual” learning environment (VLE) or managed learning environment (MLE) is an all in one teaching and learning software package. A VLE typically combines functions such as discussion boards, chat rooms, online assessment, tracking of students' use of the web, and course administration. VLEs act as any other learning environment in that they distribute information to learners. VLEs can, for example, enable learners to collaborate on projects and share information. However, the focus of web based courses must always be on the learner—technology is not the issue, nor necessarily the answer.[1]

The first step in designing a web-based course. The web is a gathering by combining it with a discussion forum. There are many online resources on how to design web-based learning programs.

Various programming languages can be used to create Web Based Learning. However, when applying this technology, the performance of the selected language in practice should be considered.

C ++, Java, Rust, Go, Python, C #, PHP, Ruby are commonly used languages in image processing, but the most preferred language is Python in today's technologies.[2]

There are many technologies to improve the quality of materials provided by teachers and various content producers. For example, software such as PowerPoint or Flash makes any presentation look great. These software allow us to add some graphically rich and quality content.

According to [3], the advantages and disadvantages can be listed as:

### ***Advantages***

- Linking resources in many different formats. The ability to organize this can be an effective way of delivering course materials
- Fast access to resources
- Can encourage independent and active learning
- Provide a useful source of supplementary materials for traditional programs
- A complementary and active resource is provided where applicable

### ***Disadvantages***

- Computer insufficiency can create difficulties for students.
- Users may have difficulty accessing site content due to insufficient equipment.
- The media used may not be eligible.
- The accuracy and quality of information may vary, so a current and clean environment is required.

#### **1.1. Problem Statement**

In the field of software, it was observed that the information encountered during various researches was mostly in foreign languages. In these studies, the accuracy of the information obtained is not always clear. It takes time to understand the research topic in a foreign language. Time is also spent to distinguish the accuracy of the information encountered. It was aimed to close this lack of resources in the native language and to make a system that confirms the accuracy of the information.

#### **1.2 Scope**

Ankades is an educational platform. Users will be able to create a blog platform on the category of education as a social media tool. Users will be able to share articles, photos or videos by category due to lack of material or information. This platform will be divided into blog and forum. In the blog section, users will be able to share their articles and various resources. In the Forum section, members can ask each other questions and answer questions. Approved answers will also appear in the forum. Each user will be able to edit their own panel. Super users will be able to make any changes to the site. In this platform, in addition to the competencies, there will be credit for asking and answering questions. Each member will be credited a credit point to the user account after registration. These credits will allow users

to post topics in the forum. Members of the forum will be allowed to ask questions as much as their credits..

### 1.3 Related Works

There are lots of MLE and VLE platforms such as Chegg, Codecademy, Stackoverflow, Wikipedia, Khan Academy. Chegg contains licensed books, and questions for the evaluation of books. The access is provided after a fee is paid. However, not all questions are answered here. This leads to limited access. Codecademy provides information on programming only. People can question about software in Stackoverflow. Users can be asked questions in many areas of the site. Stackoverflow answers can be verified by users. Another platform is Wikipedia. The information shared here is popular. Known general truths are shared, there is no accuracy criterion. It is a sharing site for general culture. There will be verified information on the site. At Khan Academy, only mathematical articles and videos are available. The user will have access to various articles for each category opened on the site. As a result of our research, e-learning resources in the field of software are not available in our native language at all. In this study, it is aimed to create a web based platform that people can use in this field .On the other sites reviewed, it was observed that resources were limited in various ways (such as payment of fees).In this platform, there will be a credit system in which users may earn own credits by their own effort.

### 1.4 Glossary

| <b>Term</b>                                 | <b>Definition</b>   |
|---|---|
| <b>E-conferencing</b>                       | It is a system that is used to talk online. nowadays it is used to prevent the need for travel.   |
| <b>E-learning</b>                           | It is a way of learning through internet tools (video watching, accessing resources).   |
| <b>HTML:</b><br>(hypertext markup language) | A widely used language for creating web pages. HTML files can also contain links to other file types, including word-processed files, spreadsheets, presentation slides, and other web pages. |
| <b>Hyperlinks:</b>                          | Clicking within the site is to provide the transition to a different web page.  |
| <b>Internet:</b>                            | A global computer network. (for example, web or email systems). Computers connect to the Internet, other computers through the host computers that are connected via modem and                |

|  |  |
|--|--|
|  | network connections.   |
| <b>Internet service provider (ISP):</b>    | Home users often access the internet through an internet service provider that hosts a PC network that is constantly connected to the internet.  |
| <b>Ethernet:</b>                           | It is usually a computer network that shares information within an organization. Access normally requires a password and is limited to a specific user range.  |
| <b>Managed learning environment (MLE):</b> | Usually has an integrated function, providing administrative tools, such as student records, and linking with other management information systems .   |
| <b>Search engines :</b>                    | Can be used to help to find information.   |
| <b>Video streaming:</b>                    | The process by which video images are able to be stored and downloaded on the web.   |
| <b>Virtual learning environment (VLE):</b> | A set of electronic teaching and learning tools.<br>Principal components include systems that can map a curriculum, track student activity, and provide online student support and electronic communication. |
| <b>World wide web (web):</b>               | Use of the internet to present various types of information. Websites or home pages may be accessed with the aid of a browser program .  |
| <b>Block Diagram :</b>                     | The type of schema which components in the system are displayed in blocks  |
| <b>UML Diagram:</b>                        | Unified Modelling Language   |

|                 |   |   |
|-----------------|---|---|
| <b>Database</b> | : | A structured set of data that is organized to be easily accessed and managed. |
|-----------------|---|---|

## 2. SRS

### Description

#### 2.1.1. Perspective

This project has been determined according to web based learning that article research will be actively used and access to the correct information and also the logic of a social platform. This app will be developed in accordance with higher education and those doing research at various level.

#### 2.1.2. Development Methodology

Since the analysis and design stages are very detailed in the waterfall model, these steps take a long time. However, the coding and testing steps are very short, as the requirements and design are clearly defined during the analysis and design phases. The number of errors during the test phase is very small. therefore we decided to use the waterfall methodology.

## Requirements Specification

### External Interface Requirements

#### User Interfaces

The user interface will be worked on any operating system. Any web browser will run the project.

#### Hardware Interfaces

This software requires internet and computer.

#### Software Interfaces

There are no external software interface requirements.

#### Communications Interfaces

There are no external communications interface requirements

### Functional Requirements

- The system shall enable its users to register on the system .
- The system shall enable all users to have a guideline about the system.

- The system shall enable its users to login in to the system.
- The system shall enable its users to view posts on the system without authentication
- The system shall enable its users to view questions on the system without authentication
- The system shall enable its users to view comments on the system without authentication.
- The system shall enable its authenticated users to write comments on the system.
- The system shall enable its authenticated users to ask questions on the system.
- The system shall enable its authenticated users to share posts on the system.
- The system shall enable its authenticated users to edit their profile information.
- The system shall enable its authenticated users to earn credits for answering a question.
- The system shall enable its authenticated users to edit their shared posts.
- The system shall enable its authenticated users to edit their shared posts tag.
- The system shall enable its authenticated users to edit their comments.
- The system shall enable its authenticated users to edit their questions.
- The system shall enable its authenticated users to have a control panel to see and edit their activities on the system.
- The system shall enable its all users to contact with the admin.
- The system shall enable its authenticated users to take quizzes.
- The system shall enable its authenticated users to take quiz earn credits.
- The system shall enable its authenticated users to join courses.
- The system shall enable its authenticated users to search courses.
- The system shall enable its authenticated users to send request to admin to open a course.
- The system shall enable its authenticated users to view quiz results.
- The system shall enable its authenticated users to view other users profile.
- The system shall enable its authenticated users to search article.
- The system shall enable its authenticated users to create article.
- The system shall enable its authenticated users to edit article.
- The system shall enable its authenticated users to view article comments .
- The system shall enable its authenticated users to like article.
- The system shall enable its authenticated users to can respond to comments.
- The system shall enable its authenticated users to
- The system shall enable its users view categories .
- The system shall enable its users to view articles.
- The system shall enable its users to view posts.
- The system shall enable admin user to specify a user to open a course.
- The system shall enable its specified users to open a course.
- The system shall enable its specified users to edit a course.
- The system shall enable its specified users to specify price of a course.
- The system shall provides user's information.
- The system requires that the user agreement be approved.

## Operations of Administrator Use Case

### Admin:

- Admin determines user privileges.
- Admin determines user fines.
- Admin can modify the system.
- Admin can display the system interface.
- Admin determines user credits.

### Moderator:

- The moderator can open category, edit, delete.
- The moderator organizes, deletes and asks questions.
- The moderator approves and activates the article of non-teacher members.
- The moderator can comment, edit comments, and delete members' comments.
- The moderator may impose penalties on the members.
- The moderator can contact the users.
- The moderator can create a course.
- The moderator can add students to the course.
- The moderator can arrange a course.
- The moderator can create, edit, and delete quizzes.
- The moderator can approve the correct answer to the quiz.
- The moderator can confirm the correct answer to the questions.
- The moderator can submit a subcategory request.
- The moderator sets the price.
- The moderator can hide the posts (article-course).

### Non-member:

- Non-members can become members of the system.
- Non-members can login to the system after becoming a member.
- Non-members can see the articles, search the system.
- Non-members can see and search questions.
- Non-members cannot see the answers to the questions.
- Non-members can search for courses, see the title and summary video.
- Non-members can search and see categories.
- Non-members can see the course prices.
- Non-members can see frequently asked questions.

### Teacher:

- The teacher can create a course.

- The teacher can add students to the course.
- The teacher can arrange a course.
- The teacher can create, edit, and delete quizzes.
- The teacher can approve the correct answer to the quiz.
- The teacher can confirm the correct answer to the questions.
- The teacher can submit a subcategory request.
- The teacher sets the price.
- The teacher can hide the posts (article-course).
- The teacher can register to the system.
- The teacher can login.
- Teachers can read articles.
- Teachers can comment on articles.
- The teacher can communicate with other students and teachers.
- The teacher can ask questions and answer questions.
- Teacher can edit profile information.
- Teachers can share questions and articles on their own page.
- Teacher can edit the posts they have shared (question, article).
- Teachers can edit the tags of shared posts.
- Teachers can edit comments.
- Teachers can edit their own questions.
- The teacher can edit posts from the control panel.
- The teacher can communicate with the teacher, admin, students and moderator.
- The teacher can see all categories.
- The teacher can see all the articles.
- The teacher can see all the questions.
- Teachers can attend courses.
- Teachers can send a request to open a course to admin.
- Teachers can search for courses.
- The teacher can view the results of the quiz.
- The teacher can view the profile of other users.
- Teachers can search for articles.
- The teacher can search for articles.
- Teachers can edit their own article.
- Teachers can see the comments of the article.
- The teacher may like the article.
- The teacher can confirm the correct answer.

**Student:**

- The student can register to the system.
- The student can login.
- Students can read articles.
- Students can comment on articles.
- The student can communicate with other students and teachers.
- The student can ask questions and answer questions.
- Student can edit profile information.

- Students can share questions and articles on their own page.
- The student can earn credit by answering the question.
- The student loses credit for every question student asks.
- Students can edit the posts they have shared (question, article).
- Students can edit the tags of shared posts.
- Students can edit comments.
- Students can edit their own questions.
- The student can edit posts from the control panel.
- The student can communicate with the teacher, admin, students and moderator.
- The student can see all categories.
- The student can see all the articles.
- The student can see all the questions.
- Students can enter the quiz.
- Students can earn credits from the quiz.
- Students can attend courses.
- Students can send a request to open a course to admin.
- Students can search for courses.
- The student can view the results of the quiz.
- The student can view the profile of other users.
- Students can search for articles.
- The student can search for articles.
- Students can edit their own article.
- Students can see the comments of the article.
- The student may like the article.
- If the student answers the question correctly, he / she earns credit.
- The student can confirm the correct answer.

## Non-Functional Requirements

Some important non-functional requirements are listed below.

**Accessibility:** Entry Records must be kept in the database.

**Usability:** The system's bandwidth must be large for users to be able to move around the site comfortably.

**Performance:** The system should work flawlessly and should not have any delays.

**Safety:** The information of the members on the site and the information within the site must be protected on a secure basis. A contract is provided to the user for the protection

and reliability of this information. To use the application, the user must confirm this agreement. The first of these, when there is any unauthorized sharing, the owner of the resource can complain about this sharing. There will be various sanctions on the person who shares this resource.

1. Updated data shall be persistent in 0.15 seconds for all users.
2. The system shall be accessible for all users for 7/24.
3. The system shall keep its data integrity for all users with the help of django framework.
4. The average response time of the system shall be 0.10 seconds.
5. The system shall provide its security by the help of jwt for both client and server side.
6. The security of the data in database shall be provided by sha256 and salt encryption.
7. The system shall have a user-friendly user interface that guide the users for any actions.
8. The system shall work on macOS, Linux and Windows operating systems.
9. The system shall use a filter system for course contents in order to prevent any ethical issues.
10. The system shall use a report system for contents to make sure none of the contents breaks the system terms of use.

### III. SDD

#### ANKADES Web Page Architecture Design Class Diagram

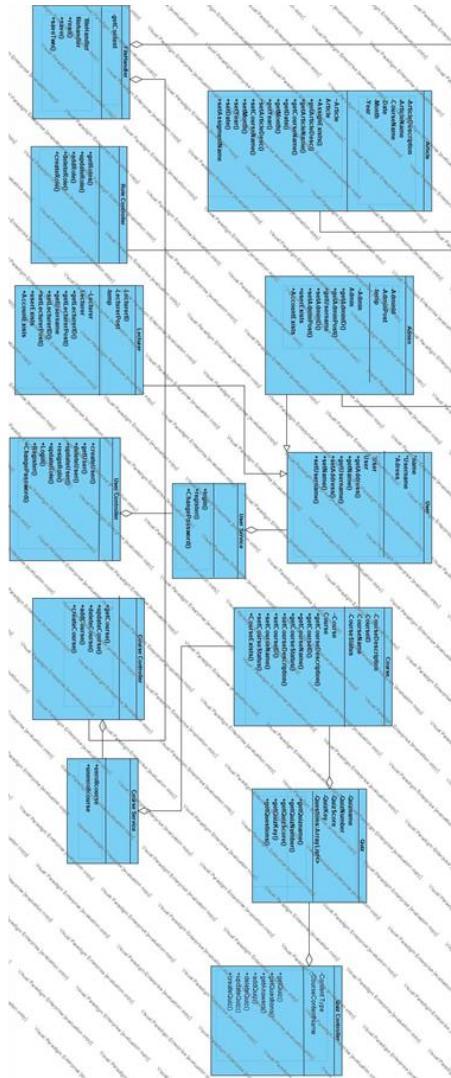


Figure 1 Class Diagram

## Activity Diagram

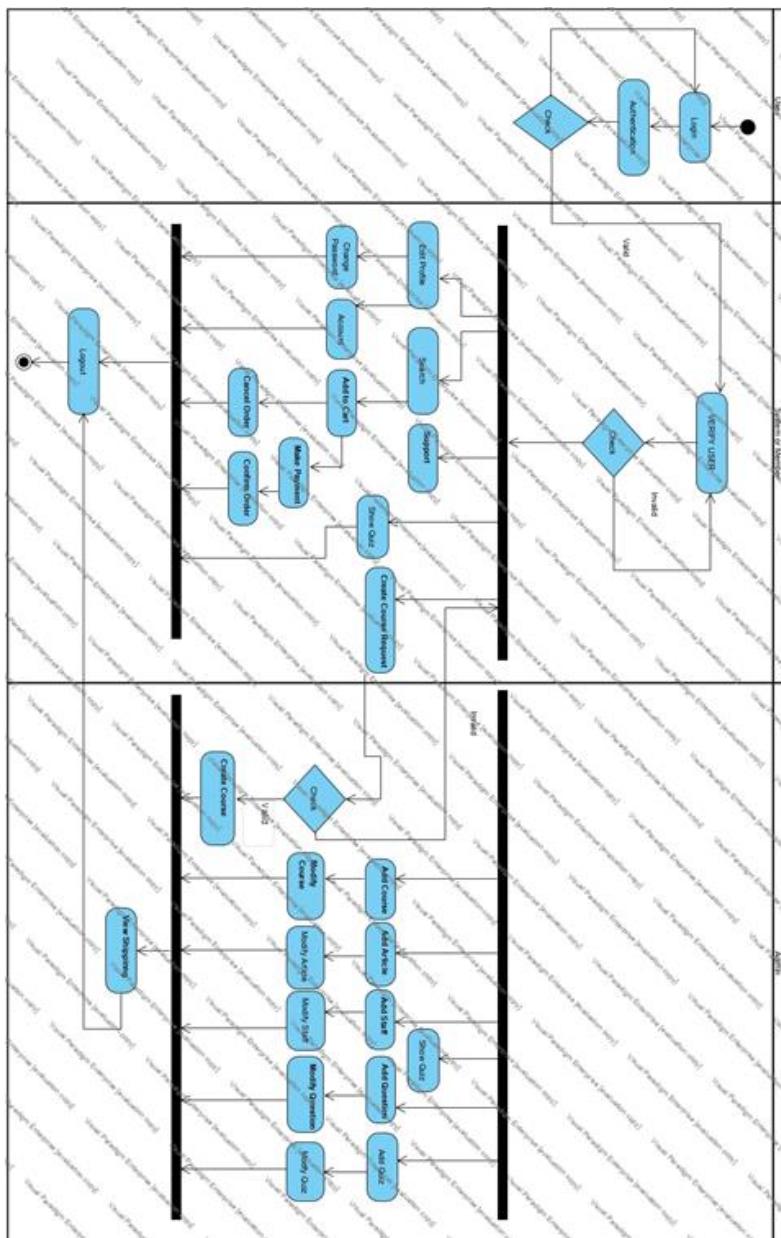


Figure 2 Activity Diagram

## Use Case Relations

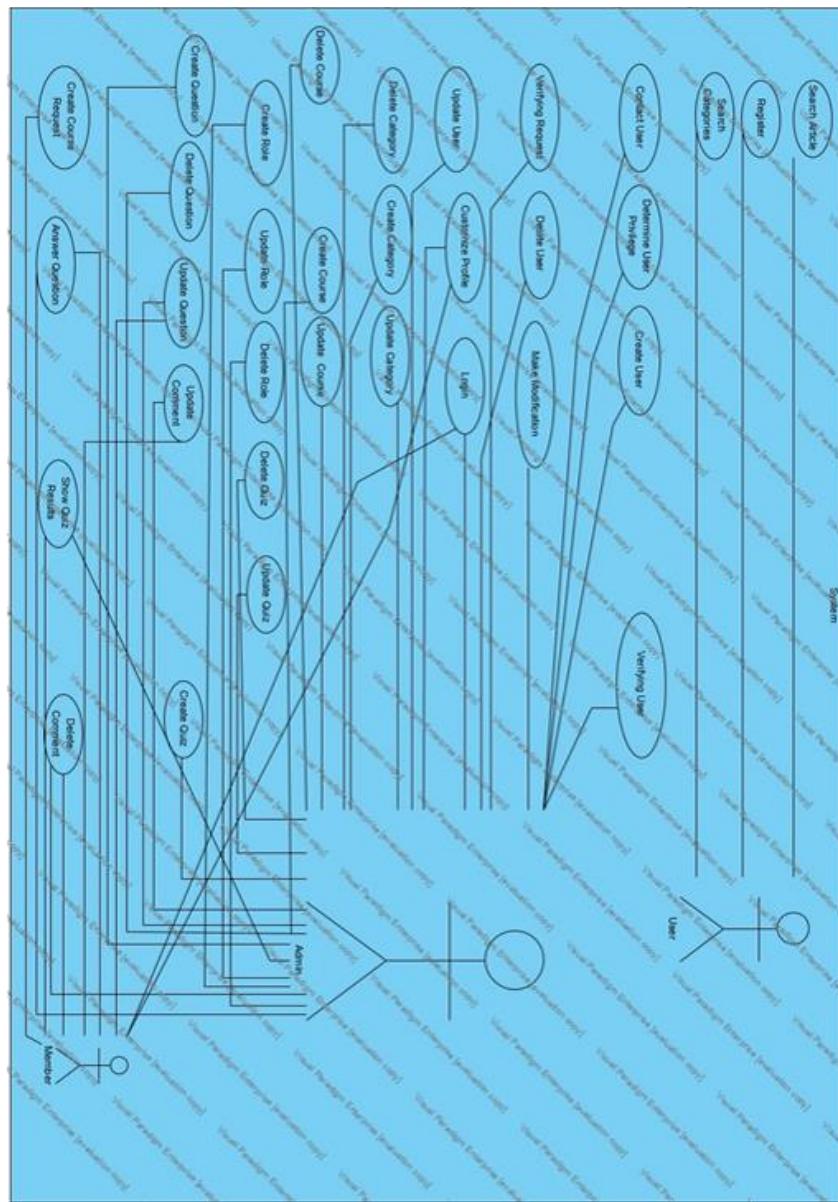


Figure 3 Use Case Relations

# ANKADES Education System UI DESIGN

## UI DESIGN

The User Interface (UI) design is made to explain the interactions between the user (not registered) / registered user and the system. The UI design system:

Home page:

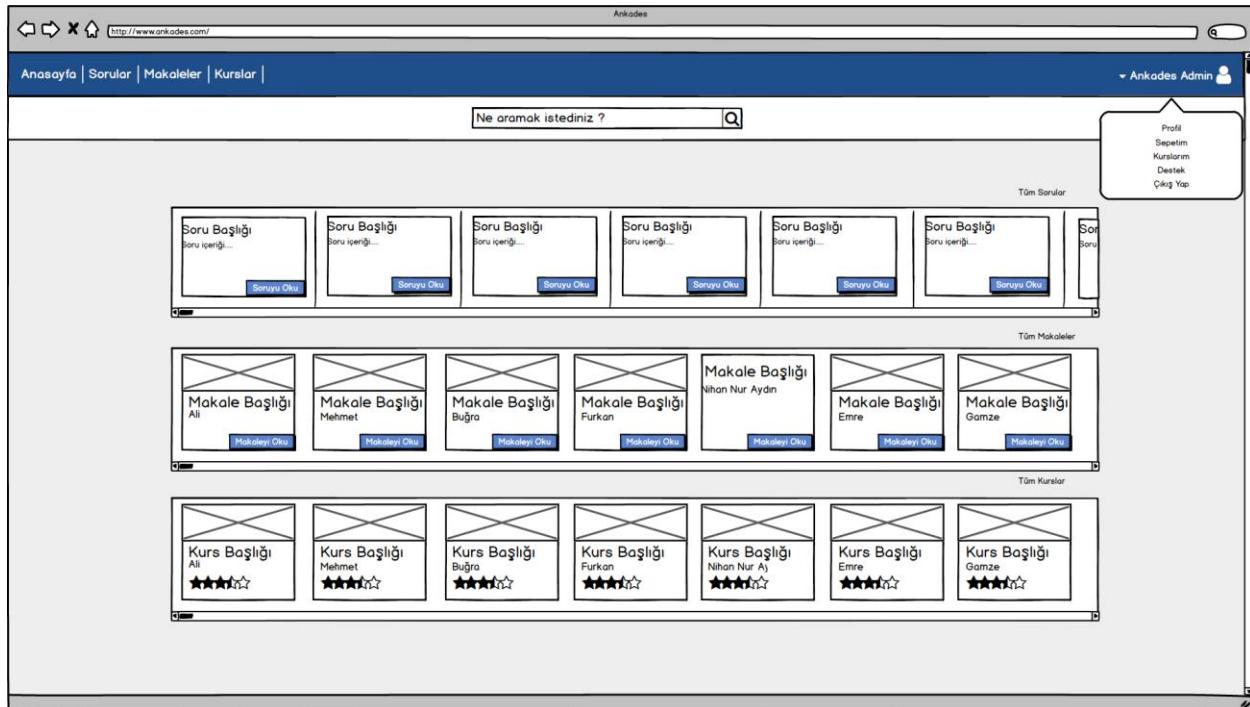


Figure 4 Home Page

Articles, questions, and courses will be visible to users in Figure 4.

## Support Page:

The screenshot shows a web browser window for 'Ankades Destek' at the URL <http://www.ankades.com/destek>. The page has a dark blue header with navigation links: 'Anasayfa | Sorular | Makaleler | Kurslar' and 'Ankades Admin'. A search bar at the top right contains the placeholder 'Ne aramak istediniz?' with a magnifying glass icon. Below the header, the word 'Destek' is displayed. The main content area is titled 'Destek' and contains two text input fields: 'Bağlık \*' and 'Açıklama'. Under 'Açıklama' is a rich text editor toolbar with icons for bold, italic, underline, etc. At the bottom left is a button labeled 'Resim / Video Ekle' and a small 'Sıfır' button. A large blue 'Gönder' button is centered at the bottom.

Figure 5 Support Page

This is the form page where users can contact the admin they live in. In Figure 5, In this process, the subject content description and picture video will be able to add.

## Login page:

The screenshot shows a web browser window for 'Ankades Giriş Yap' at the URL <http://www.ankades.com/giris-yap>. The page has a dark blue header with navigation links: 'Anasayfa | Sorular | Makaleler | Kurslar' and 'Giriş Yap | Kayıt Ol'. On the right side of the header are 'Giriş Yap' and 'Kayıt Ol' buttons. The main content area is titled 'GİRİŞ YAP' and contains two text input fields: 'Kullanıcı Adı veya E-posta' and 'Şifre'. Below these fields is a checkbox labeled 'Beni Hatırla' and a blue 'Giriş Yap' button. At the bottom of the form, there is a link 'Hesabınız yok mu? [Kayıt Olun veya Şifremi unuttum](#)'. At the very bottom of the page, a footer bar contains the text 'Tüm Hakları Saklıdır.'

Figure 6 Login Page

In Figure 6, The user will be able to change the user name or e-mail address password and save the login information to his computer from the Remember me button.

## Account Settings Page:

Ankades İletişim Bilgilerim

Ne aramak istediniz?

Anasayfa | Sorular | Makaleler | Kurslar | Ankades Admin

Hesap Ayarları

Facebook:   
Instagram:   
Youtube:   
Google+:   
LinkedIn:   
Twitter:   
Git:

Güncelle

Makalelerim  
Sorularım  
Kurslarım  
Profil Güncelle  
Şifre Güncelle  
İletişim Bilgilerim  
Çıkış Yap

Figure 7 Account Settings Page

Ankades Profil Güncelle

Ne aramak istediniz?

Anasayfa | Sorular | Makaleler | Kurslar | Ankades Admin

Hesap Ayarları

Kullanıcı adı \*   
Zorunlu. 150 karakter ya da daha az olmalı. Sadece harfler, rakamlar ve @/\_/+/-\_ karakterleri kullanılabilir.

E-posta adresi

Ad

Soyad

Adres Bilginiz

Güncelle

Makalelerim  
Sorularım  
Kurslarım  
Profil Güncelle  
Şifre Güncelle  
İletişim Bilgilerim  
Çıkış Yap

Figure 7 Account Settings Page

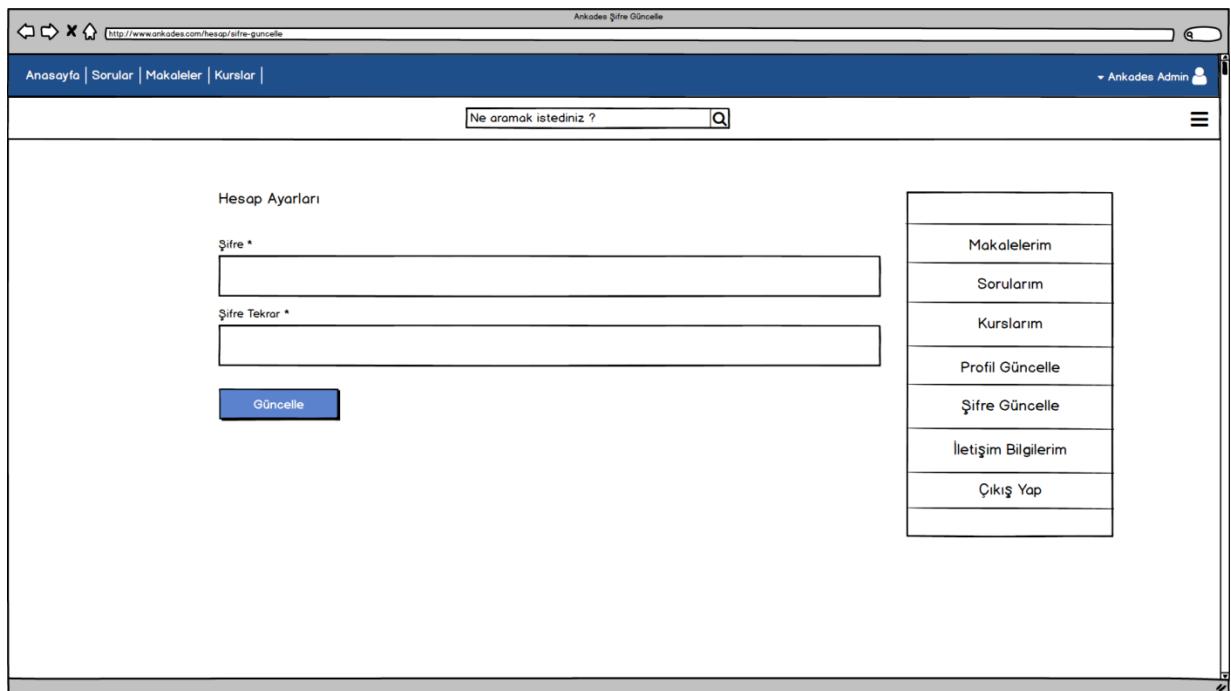


Figure 7 .1 Account Settings Page - Password Change

In Figure 7, The user will be able to add their social media accounts here (Facebook, Instagram, Youtube, Google, LinkedIn, Twitter, Github).

The user will be able to edit this page if they have entered incorrect information (such as name and surname).

In Figure 7 , The user will be able to update the password on this page.

The user can enter address information on this page for convenience in billing.

## Register Page:

KAYIT OL

Kullanıcı Adı  
Email  
Ad  
Soyad  
Şifre  
Şifre Tekrar

Kullanıcı sözleşmesini okudum, kabul ediyorum

**Kayıt Ol**

Zaten bir hesabınız var mı? [Giriş Yap](#)

Tüm Hakları Saklıdır.

Figure 8 Register Page

In Figure 8, The user will fill in his unique username and required information. The user who does not approve the User Agreement will not be able to register to the system.

## Basket Page:

Ne aramak istediniz ?

Sepetim

| Başlık   | Fiyat   | İşlem                                |
|----------|---------|--------------------------------------|
| Başlık 1 | 39.99 ₺ | <input type="button" value="Çıkar"/> |
| Başlık 2 | 99.99 ₺ | <input type="button" value="Çıkar"/> |

Sepet Toplamı

Toplam: 139.98 ₺

**Onayla**

Figure 9 Basket Page

User Card information will be entered on this Figure 9 (this page will include the course and payment stages of the user)

The screenshot shows a web browser window for 'Ankodes Sipariş Detay' at the URL <http://www.ankodes.com/hesap/siparis-detay>. The page has a dark blue header with navigation links: 'Anasayfa | Sorular | Makaleler | Kurslar |'. On the right, it says 'Ankodes Admin' with a user icon. A search bar at the top right contains the placeholder 'Ne aramak istediniz?'. Below the header, there's a sidebar with a list: 'Sepet', 'Siparişlerim', and 'Adres Bilgilerim'. The main content area is titled 'Sipariş Detayı' and displays a table with one row:

| Kurs Başlığı | Alındığı Tarih | Toplam  |
|--------------|----------------|---------|
| Başlık 1     | 24 Ekim 2019   | 39.99 ₺ |

Below the table, a note states: 'Başlık 1 adlı ürün başarıyla alınmıştır. [Buradan kurs soyfasına devam edebilirsiniz.](#)' At the bottom right of the content area is a blue button labeled 'Devam Et'.

Figure 10 Payment Detail Page

In this Figure 10, the user will be able to see the course prices, the total basket, and remove items from the basket.

## Course Category Page:

The screenshot shows a web browser displaying a course page. The URL is http://www.ankades.com/kurslar/boasik-1. The page title is 'Ankades Başlık 1'. The top navigation bar includes links for 'Anasayfa', 'Sorular', 'Makaleler', and 'Kurslar'. A search bar says 'Ne aramak istediniz?'. On the right, there's a user icon for 'Ankades Admin'.

The main content area features a course card for 'Django ile Web Geliştirme'. The card includes a star rating of 4.5, a last update date of 'Son Güncelleme: 12 Aralık 2019', and student counts of '489,073 Öğrenci' and '146,408 Rating'. Below the card is a section titled 'Öğrenecekleriniz' with two boxes of text. To the right is a sidebar with a price of '₺ 39,99', a 'Sepete Ekle' button, and a 'Hemen Satın Al' button. It also lists 'Kurs İçeriği' with '415 Saat video anlatım', '2 Makale', '81 İndirilebilir içerik', and 'Ömür boyu erişim'.

Below the sidebar is a 'Paylaş' (Share) button. The main content area also contains a table of contents with various course modules and their details:

| Kurs İçeriği                          | Ders Sayısı | İzlenme Süresi |
|---------------------------------------|-------------|----------------|
| + Kursa Giriş                         | 4 Ders      | 10:25          |
| + Python Objeleri ve Veri Yapıları    | 5 Ders      | 42:41          |
| + Döngüler                            | 12 Ders     | 55:27          |
| + Fonksiyonlar                        | 10 Ders     | 01:10:49       |
| + Veritabanı Bağıntısı                | 8 Ders      | 01:14:16       |
| + Django Framework ile Web Geliştirme | 46 Ders     | 06:32:38       |
| Devam: ▾                              |             |                |

Below the table of contents is a 'Açıklama' (Description) section with a large amount of placeholder text. The 'Yorumlar' (Comments) section follows, featuring comments from 'Buğra Ahmet Çağlar' (12 Kasım 2019) and 'Furkan Anıl Erdem' (5 Kasım 2019), each with a reply arrow icon. At the bottom is a 'Yorum Yapın' (Leave a comment) form with a text area and a 'Yorum Yap' (Post comment) button.

Figure 11 Course Category Page

In this Figure 11 will contain course information (Course date, duration, course information, comments, course description).

## Edit Course Page:

Ankades Kurs Düzenle

Ne aramak istediniz ?

Anasayfa | Sorular | Makaleler | Kurslar | Ankades Admin

Kurs Düzenle

Başlık \*

Slug \*

Yeni Fiyat \*

İndirim Tutarı

Kategori \*

Etiketler

Açıklama

Güncelle

Makalelerim

Sorularım

Kurslarım

Profil Güncelle

Şifre Güncelle

İletişim Bilgilerim

Çıkış Yap

Figure 12 Edit Course Page

In this Figure 12 will be open to authorized users in the system. The authorized person on this page will edit the course information.

## Add Course Page:

Ankades Kurs Ekle

Ne aramak istediniz ?

Anasayfa | Sorular | Makaleler | Kurslar | Ankades Admin

Kurs Ekle

Başlık \*

Slug \*

Fiyat \*

Kategori \*

Etiketler

Açıklama

Güncelle

Makalelerim

Sorularım

Kurslarım

Profil Güncelle

Şifre Güncelle

İletişim Bilgilerim

Çıkış Yap

Figure 13 Add Course Page

In this Figure 13 will be open to authorized users in the system. From here the user will determine the course information and the course fee.

### Course Categories Page:

The screenshot shows a web page titled "Ankades Kurslar". The top navigation bar includes links for "Anasayfa", "Sorular", "Makaleler", and "Kurslar". A search bar and a user profile icon are also present. The main content area is titled "Kurs Kategorileri" and features a grid of twelve course category cards. Each card has a large 'X' icon at the top, followed by the title "Kurs Başlığı", a student name, a five-star rating, and a "Devam" button. The cards are arranged in two rows of six. On the right side of the page, there are two sections: "Web Geliştirme" and "Dil".

Figure 14 Course Categories Page

In this Figure 14, the Course Categories in the system are shown.

The screenshot shows a web page titled "Ankades Başlık 1". The top navigation bar includes links for "Anasayfa", "Sorular", "Makaleler", and "Kurslar". A search bar and a user profile icon are also present. The main content area is titled "Kurs Kategorileri" and features a large black arrow pointing to the right. On the right side of the page, there is a sidebar with two sections: "Bölüm 1: Kursa Giriş" and "Bölüm 2: Objeler ve Veri Yapıları". Under "Bölüm 2", there is a list of four items, each preceded by a small square checkbox. The last item in the list has a blue link labeled "Kaynak Dosya".

Figure 15 Course Detail Page

In this Figure 15 will contain the contents of the courses purchased and the videos and information of the content section of the courses. The course contents followed by the user will appear ticked. The user will be able to search this page for ease of access.

### Article Categories Page:

The screenshot shows the 'Ankodes Makaleler' (Article) page. At the top, there's a header bar with links for 'Anasayfa | Sorular | Makaleler | Kurslar |' and a dropdown for 'Ankodes Admin'. A search bar says 'Ne aramak istediniz ?' with a magnifying glass icon. Below the header, there's a sidebar with 'Makale Kategorileri' and a search bar. On the right, there's a sidebar for 'Son Makaleler' showing 'Baslik 1' (published 26 Ekim 2019) and 'Baslik 2' (published 24 Ekim 2019). Another sidebar for 'Son Etiketler' lists 'Etiket 1' through 'Etiket 12'. The main content area displays three article cards: 'Baslik 1' by 'Nihan Nur Aydin' (published 26 Ekim 2019), 'Baslik 2' by 'Furkan Anıl Erdem' (published 26 Ekim 2019), and 'Baslik 3' by 'Buğra Ahmed Çağlar' (published 26 Ekim 2019). Each card includes a 'Devamı' button, author info, category, date, comments, likes, and a 'Beğeni' (Like) button.

Figure 16 Article Categories Page

In this Figure 16, the user will be able to view, like and comment on the article in the system and respond to comments.

## Add Article Page:

The screenshot shows the 'Makale Ekle' (Article Add) page. The main area contains fields for 'Başlık' (Title), 'Slug', 'Kategori' (Category), 'Etiketler' (Tags), and 'Açıklama' (Description). A rich text editor toolbar is visible above the description field. Below the fields are buttons for 'Resim / Video Ekle' (Image / Video Add) and 'Ekle' (Add). To the right is a sidebar with links: 'Makalelerim', 'Sorularım', 'Kurslarım', 'Profil Güncelle', 'Şifre Güncelle', 'İletişim Bilgilerim', and 'Çıkış Yap'.

Figure 17 Add Article Page

In this Figure 17 will be open to authorized users in the system. Article information and category will be determined and added to the system.

## Article Editing Page:

The screenshot shows the 'Makale Düzenle' (Article Edit) page. It has the same structure as the add page, with fields for 'Başlık', 'Slug', 'Kategori', 'Etiketler', and 'Açıklama'. The rich text editor toolbar is present. Below the fields are buttons for 'Resim / Video Ekle' and 'Güncelle' (Update). The sidebar on the right is identical to Figure 17.

Figure 18 Article Editing Page

In this Figure 18 will be open to authorized users in the system. The user will be able to edit his article on this page.

## Article Category Page:

The screenshot shows a web browser window titled "Ankades Bloglik 1" with the URL <http://www.ankades.com/makaleler/baslik-1>. The page header includes links for "Anasayfa", "Sorular", "Makaleler", and "Kureler", along with a search bar and an "Ankades Admin" button. The main content area features a banner with Python and Django logos. The article title is "Django + Angular = A powerful web application" by "Nihan Nur Aydin" (Category: Category, Published: 26 Ekim 2019, 211 Yorum, 36 Beğeni). The article text discusses integrating Django and Angular. It includes a code snippet for a command-line script to execute both frameworks. Below the article is a section for "Etiketler" with "Web Design, Django Framework, Python" and a "Beğen" button. At the bottom, there's a user profile for "Nihan Nur Aydin" with a placeholder "USER IMAGE", followed by a comment section titled "Yorumlar" showing comments from "Buğra Ahmet Çağlar" and "Furkan Anıl Erdem". There's also a "Yorum Yapın" (Leave a comment) form.

Figure 19 Article Category Page

In this Figure 19 the user will be able to view the articles and see the necessary information about the article.

## Article Management Page:

The screenshot shows a web page titled "Ankades Makalelerim" (Ankades Articles). The main content area is titled "Makalelerim" (My Articles) and displays a single article entry. The article details are: Başlık (Title): Bağılk 1, Oluşturulduğu Tarih (Created Date): 24 Ekim 2019, Son Güncelleme (Last Update): 26 Ekim 2019, Yorum (Comments): 10, Beğeni (Likes): 2. Below these details are two buttons: "Düzenle" (Edit) and "Sil" (Delete). To the right of the main content is a sidebar with the following menu items: Makalelerim, Sorularım, Kurslarım, Profil Güncelle, Şifre Güncelle, İletişim Bilgilerim, and Çıkış Yap.

Figure 20 Article Management Page

How much article has been viewed, number of comments, number of likes and edit and delete from in Figure 20.

## Purchased Courses Page:

The screenshot shows a web page titled "Ankades Satın Aldığım Kurslar" (Ankades Courses I Bought). The main content area displays a grid of course cards. Each card contains the following information: Kurs Başlığı (Course Title), student name, completion percentage, and a "Devam Et" (Continue) button. There are two rows of five cards each. At the bottom of the page, there is a navigation bar with page numbers (1, 2, 3, 4, ...) and a "Son Sayfa" (Last Page) link.

Figure 21 Purchased Courses Page

The user will be able to see all his / her courses from in Figure 21.

## Order Detail Page:

Figure 22 Order Detail Page

From In this Figure 22, the user will be able to see which courses he bought on which date.

## Question Categories Page:

Figure 23 Question Categories Page

The user will see and answer the questions in the relevant category in Figure 23. Questions and answers asked on this page will be approved and published by admin.

Ankades Başlık 1

<http://www.ankades.com/sorular/baslik-1>

Anasayfa | Sorular | Makaleler | Kurslar | Ankades Admin

Soru Başlığı 1

Nihan Nur Aydin Category 26 Ekim 2019 211 Yorum

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum." ...

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum." ...

Etiketler: [Web Design](#), [Django Framework](#), [Python](#)

Admin

Nihan Nur Aydin

User IMAGE

f t G+ y in

Yorumlar

Buğra Ahmet Çağlar 12 Kasım 2019

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum." ...

Furkan Anıl Erdem 5 Kasım 2019

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat."

Soruya Cevaplayın

B I U S style ¶ [ ] C [ ]

Sorunun cevabını buraya yazabilirsiniz

Cevapla

Figure 24 Question Page

In this Figure 24, the user will be able to see all the questions under which the topic is opened and detailed information.

(opening date, number of likes, question creator, number of likes, number of comments)

The user will be able to view tags similar to this topic.

## Database Design



Figure 25 Database Design

## User Log-in Sequence Diagram

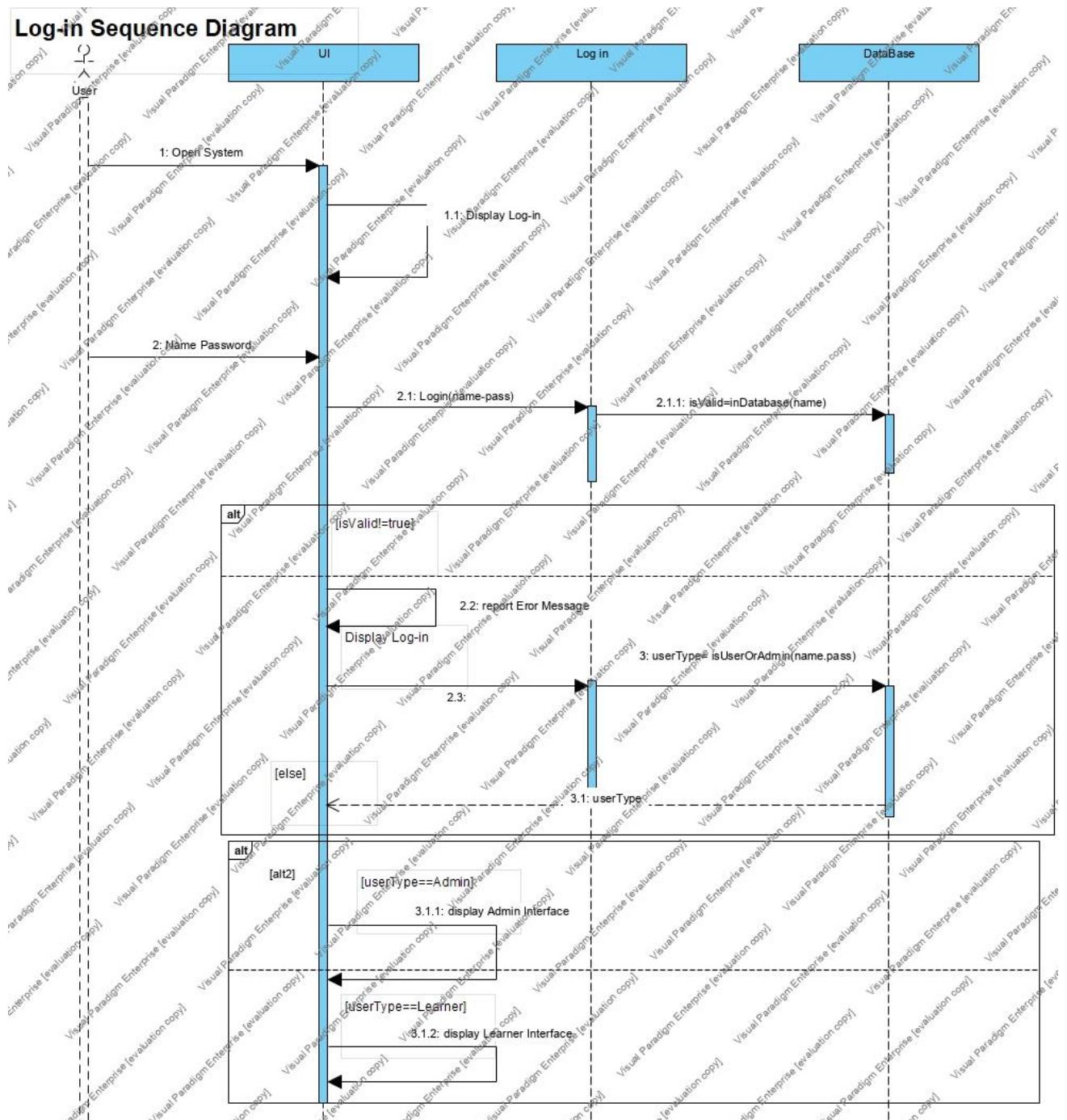


Figure 26 Sequence Log-in Diagram

In Figure 26 above, in the User Sequence diagram, there are the steps of the users in the log-in phase. It shows the relationship between log-in and database that occurs when logging in.

If the user is not registered to the system or has entered the wrong password in the system, this includes the steps forwarding back to the user.

## **Architecture Design of ANKADES Education System Web Application**

### **Register User Role Page**

**Name:** Register a User Role Page

**Description:** There is one button and some text boxes. Admin enters the fields like name, surname, username and password. After finishing this, admin clicks the register button.

**Actor:** Admin

**Precondition:** None

**Operations:** Admin enter the fields then click the register button.

**Arguments:** Fields of registered staff.

**Returns:** None

**Pre-condition:** Click the ‘Register a Staff’ page button.

**Post-condition:** New staff registered successfully.

**Exceptions:** If staff has already existing or the fields are empty, web page gives an error message.

### **Basic Sequence:**

1. Admin enters the fields.
2. Admin clicks the register button.

**Exception:** Internet and database connection can be fail.

**Post Conditions:** None

**Priority:** Low

### **Login Page**

**Name:** Login Page

**Description:** When admin enter their usernames and passwords or a registered member click the login button, system directs the form pages according to the type of user. This page is Login Page.

**Actor:** Admin, Member

**Precondition:** Admin and member must open the web site.

**Operations:** If valid username and password has typed, member and admin can login..

**Arguments:** Username and password.

**Returns:** If login fails gives an error message.

**Pre-condition:** Click the ‘Login’ button.

**Post-condition:** Login is successfully.

**Exceptions:** If username or password is wrong, admin and member cannot login and web page gives an error message.

#### **Basic Sequence:**

1. Member must register to system by admin if s/he doesn't have an account.
2. Member shall login to the system by entering his/her username and password.
3. System directs the form pages according to the type of user.

**Exception:** Internet and database connection can be fail.

**Post Conditions:** None

**Priority:** High

#### **Admin Page**

**Name:** Admin Page

**Description:** There are some buttons named as register a admin, list of all courses, show courses, add an course, update a course, list of all questions, show questions , update questions , add questions, add article , edit article , show all article ,update article, update user information, logout. By clicking these buttons, system directs the admin to form pages.

**Actor:** Admin

**Precondition:** Admin must be login.

**Operations:** Admin can reach other form pages with clicking buttons.

**Arguments:** None

**Returns:** None

**Pre-condition:** Click the button.

**Post-condition:** None

**Exceptions:** If clicked form page does not exist, admin cannot reach that form pages, and web page gives an error message.

#### **Basic Sequence:**

1. Admin clicks the button.
2. System directs the form pages according to the clicked button.

**Exception:** Internet and database connection can be fail.

**Post Conditions:** None

**Priority:** High

### Create a Component (Course,Quiz,Article,Question,Comment)

**Name:** Create a Component Page

**Description:** There is a button, three dropdown lists and file uploader. Admin or member choose the block, component and upload new plan. After finishing this, admin or member click the create button.

**Actor:** Admin, Member

**Precondition:** If the plan of the component changed.

**Operations:** Admin or member can update a component plan.

**Arguments:** None

**Returns:** None

**Pre-condition:** Click the ‘Create a Course’ page.

**Post-condition:** Course created successfully.

**Exceptions:** If database connection failed, web page gives an error message.

**Basic Sequence:**

1. Admin or member click the ‘Create a Course’ button in the form page.
2. Admin or member choose a block, component and create the new plan.

**Exception:** Internet and database connection can be fail.

**Post Conditions:** None

**Priority:** Middle

### Update Component Page(Course,Quiz,Article,Question,Comment)

**Name:** Update Component Page

**Description:** There is a button, three dropdown lists and file uploader. Admin or member choose the block, component upload new plan. After finishing this, admin clicks the update button.

**Actor:** Admin, Member

**Precondition:** If the plan of the component changed.

**Operations:** Admin can update a component plan.

**Arguments:** Component

**Returns:** Component

**Pre-condition:** Click the ‘Update a Component’ page.

**Post-condition:** Component updated successfully.

**Exceptions:** If database connection failed, web page gives an error message.

#### **Basic Sequence:**

3. Admin or member click the ‘Update a Component’ button in the form page.
4. Admin or member choose a block, component and upload the new plan.

**Exception:** Internet and database connection can be fail.

**Post Conditions:** None

**Priority:** Middle

### Delete Component Page(Course,Quiz,Article,Question,Comment)

**Name:** Delete Component Page

**Description:** Admin or member select component. After finishing selection, admin or member click the delete button.

**Actor:** Admin, Member

**Precondition:** Item must be selected.

**Operations:** Admin or member can delete a component.

**Arguments:** Component

**Returns:** None

**Pre-condition:** Click the ‘Delete a Component’ page.

**Post-condition:** Component deleted successfully.

**Exceptions:** If database connection failed, web page gives an error message.

#### **Basic Sequence:**

1. Admin or member click the ‘Delete a Component’ button in the form page.
2. Admin or member choose component , delete component.

**Exception:** Internet and database connection can be fail.

**Post Conditions:** None

**Priority:** Middle

## Update User Information

**Name:** Update User Information Page

**Description:** When member or admin want to change their information like username, passwords and room then, clicks the update button.

**Actor:** Admin, Member.

**Precondition:** Admin or member shall be login.

**Operations:** User changed his/her information then click the update button.

**Arguments:** Fields for change.

**Returns:** None

**Pre-condition:** None

**Post-condition:** Updated successful.

**Exceptions:** If database connection failed or the fields are empty, web page gives an error message.

**Basic Sequence:**

1. User enter the fields.
2. User clicks the update button.

**Exception:** Internet and database connection can be fail.

**Post Conditions:** None

**Priority:** Low

## **Conclusion**

Web-based learning is a way of learning using web-based technology and tools. In other words, computer is used as the main interaction device in web-based learning. A managed learning environment or virtual learning environment is an all in one teaching and learning software package. There are lots of MLE and VLE platforms such as Chegg, Codecademy, Stackoverflow, Wikipedia, Khan Academy. In this study, it is aimed to create a web-based platform that people can use in this field .On the other sites reviewed, it was observed that resources were limited in various ways (such as payment of fees).In this platform, there will be a credit system in which users may earn own credits by their own effort. The aim of this project is to create a social platform and a learning platform where everyone can access the data they want. This will be an easily accessible platform for all instructors, students and anyone who can use this system. The information of the members on the site and the information within the site must be protected on a secure basis.A contract is provided to the user for the protection and reliability of this information.To use the application, the user must confirm this agreement.The first of these, when there is any unauthorized sharing, the owner of the resource can complain about this sharing. There will be various sanctions on the person who shares this resource.

## **Acknowledgement**

We are received from Nurdan Saran. The help we received from them was a great asset to improve this project and ourselves. Thank you again.

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