TED UNIVERSITY

DEPARTMENT OF COMPUTER ENGINEERING

CMPE 491

SENIOR PROJECT I Project Specification Report

UniAdvisor

Project URL: https://uni-advisor.netlify.app

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1 - Introduction

1.1 - Description

The process of choosing a university can be a complex and stressful journey for students in our country. Making the right decision may be quite difficult during the short-term preference period because there are so many departments, institutions, and factors to take into mind. Therefore, our aim is to help students who will attend university that year by UniAdvisor app.

UniAdvisor app will on iOS and Android platforms to provide a light of clarity and guidance to students seeking higher education opportunities. Application with a user-friendly interface that includes a powerful selection bot feature designed to simplify this process. It allows students to enter their YKS[1] results and preferences, creating a custom list of universities and departments that match their qualifications.

Additionally, Uni Advisor App offers deep information about universities, including their addresses and websites, as well as useful ways such as finding student accommodation and creating transport routes. UniAdvisor gives information for private institutions with the data we pull from the API's and providing students with the information they need to make informed choices and assist with the most critical step in their life.

1.2 - Constraints

1.2.1. Technological Constraints: The application is designed to run on iOS and Android platforms and does not support other operating systems.

1.2.2. Data Sources: The accuracy and up-to-date nature of the application's information are dependent on official data sources such as YÖK Atlas. Changes or disruptions in the data from these sources can affect the app's functionality.

1.2.3. Internet Connectivity: The app requires a consistent internet connection to exchange information. Continuous access to this connection may not be available for all users.

1.2.4. Student Preference Periods: During periods when students are determining their university preferences, the usage of the application may surge. This can lead to an increase in server load and traffic.

1.2.5. Privacy and Data Protection: High-security measures must be in place to protect user's personal information. However, it's challenging to guarantee complete protection against external threats like cyber-attacks.

[1] YKS: Yükseköğretim Kurumları Sınavı, name of the university entrance exam in Turkey.

1.2.6. Financial Constraints: A specific budget has been allocated for the development, maintenance, and updating of the app. Limitations of this budget may place restrictions on the project's scope and features.

1.2.7. User Feedback: Adjustments to the app's features and interface may be necessary based on user feedback. The collection and evaluation of this feedback can be time-consuming.

1.2.8. Economic Perspective: Given the affordability of the necessary hardware devices, the project's budget aligns with the cost of a quality tablet or phone. This ensures that the device remains economically accessible for parents.

1.3- Professional and Ethical Issues

Our priority for professional and ethical issues is to positively affect students' psychology and facilitate their university and department choices, which are one of the most important decisions of their lives, in a healthy way. We are in contact with professionals for the psychology of students.

The language of our practice is primarily aimed at treating all people, students, teachers and parents fairly and respectfully, not harassing and discriminating, and not harming others. We prioritize users' privacy and security by ensuring that the highest standards of privacy and ethical conduct are applied throughout the project.

We ensure that the app uses language that could lead to any form of harassment, such as sexual, racial or other bullying, rumors or verbal and physical abuse. Our abiding goal is to create a safe and inclusive environment that leaves no room for abuse.

2 - Requirements

2.1. Functional Requirements

2.1.1. User Registration and Authentication

It should be possible for users to register and have secure access to the application.
The person's name, email address, password, and preferences should all be included in their user profile.

2.1.2. University and Department Information

Using data from YÖK Atlas, the application should offer comprehensive details about all institutions and departments.
Important information about each university and department, such rankings, score categories, quotas, and the language of instruction, should be included.

2.1.3. University Preference Ranking

It should be possible for users to rank the colleges and departments that they most like.
A user's preference ranking, and user profile ought to be connected.

2.1.4. Score Calculation

It should be possible for users to determine their own scores.
Scores from examinations such as YGS, LYS, and others should be considered in the scoring process.

2.1.5. Preference Results

The user's preferences should be shown by the program according to their ranking.
Results of placement should be made available to users.

2.1.6. Leaflet API

The application used for map.

2.2. Non-functional Requirements

2.2.1. Performance

Even with a lot of data, the application should react fast and fluidly.
The user should be able to calculate scores and preferences quickly.

2.2.2. Usability

It should be simple and straightforward to use to interact with the user interface.
The layout should be simple to navigate and visually appealing.

2.2.3. Security

User data needs to be safely kept and shielded from unwanted access, including login credentials and private information.
User information needs to be safe, especially when calculating scores.

2.2.4. Compatibility

The program should support both the Android and iOS platforms and work with a wide range of mobile devices.
It should function properly with varying screen sizes and resolutions.

3 - References

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