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Department of Computer Engineering

Senior Design Project

Project short-name: AutAware

Analysis Report

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1. Introduction

Autism is a complex neurobehavioral condition that affects social interaction, development language and communication skills [1]. However, it has many symptoms and effects on individuals. Depending on the impairment levels individuals may have a normal life otherwise they may a devastating disability that may require and institutional care.

Autism do not only affect the individuals also their families are affected by this complex neurobehavioral condition. In Turkey it is believed there are 1.5 million individuals with autism. If we also include families, autism affects 4.5 million people in Turkey [2].

Parents of children with autism require reaching communities for their unique situations. In recent researches it was found that giving parents opportunities to express their likes and dislikes about support networks can lead to identifying how support networks can be more effective and accessible to parents and families [3]. However, in Turkey it is difficult to find much information about autism.

In the website of Autism Foundation in Turkey it was shown 83 centers exist in Turkey where people with autism can go get help from professionals [4]. Nevertheless, it is difficult to find information about most of those centers. Many of them have no website or blog where people can see their information. For a disorder in which special care and education is important this creates a huge problem for the families. Researchers conclude most of the families in Turkey have problem with reaching information about autism and those centers [5]. Also, parents require support groups to share their stories with other families and form a solidarity.

Many families in Turkey do not send their children to autism centers and get special care due to insufficient information. For such a complex neurobehavioral condition not getting special care may have some serious effects on those children.

Idea of AutAware aims to solve all the problems described above with one platform.

Following sections of this report include the detailed description of this project and an explanation of its constraints, professional and ethical issues, functional and non-functional requirements.

2. Current System

In this chapter, we will give information about the systems on the market which are similar in terms of some points to our proposed system. At the end, we will explain how our proposed system differs from these current systems in detail.

2.1 Spectrum

Spectrum is a web application which is the leading source of expert opinion and news about autism in the market. [6]

- This application is a web application it is not possible to find a mobile version of it.
- They provide a wide range of Autism related content.
- As they have experts who are specialized in this area they are able to prove expert opinions about Autism news and syndromes.
- Users can browse articles about different topics such as diagnosis, treatments, environment etc.

2.2 Autism Society

This is the web application of The Autism Society of America. They provide autism related content such as information about autism, latest news and user stories, with and aim to improve lives of the people who are affected by autism. [7]

- This application is only offered in web platform.
- Users can see information about the Autism disorder.
- Users can see blog posts about Autism however users cannot create blog contents.

2.3 Autism Forums (Asperger's & Autism Community)

Autism Forums is a web application to discuss Aspergers Syndrome, Autism, High Functioning Autism and related conditions. [8]

- It is available on the web.
- Users can reply on discussions and create their own threads.
- Users can chat in chat rooms.
- Users can create blog posts share their stories.

2.4 Otsimo

In the mobile platform, Otsimo is the only Autism related high quality app that is found on the AppStore currently. Unfortunately, it is not possible to find autism related apps for the mobile platform. Otsimo is a Turkish company and they are producing special kind of games with an aim to educate children with autism. They also provide autism related news and information on their website to maximize the awareness. [9]

All of these apps are aimed to maximize awareness about autism but they all have one missing point. They don't provide user related content. One of the main things that we are trying to do in our application is to provide information and content to our users which they might be interested in. Also it is not possible find applications that provides information and user comments about the autism centers.

3. Proposed System

3.1 Overview

AutAware is a platform where families with autistic relatives can reach the latest information about autism centers, communicate with other people, form a solidarity and help people who are in need.

The idea of AutAware comes from the fact that there are many autism centers in Turkey and they provide no information on the web. In a world which runs on internet, not providing necessary information is a huge issue. It both affects autistic people and their families.

AutAware aims to help those people. However, AutAware should not be mixed up with charity applications. They are about making donations, not providing information. It is true that economy may be a concern for families but many families also suffer from lack of information and support groups.

AutAware knows that no family is like each other they are all different, they all have different problems, but they all have one thing in common, providing the best care they can to their children. Therefore, AutAware will generate content individually for each user to create the ultimate user experience. Users will find content which they might be more interested in or more relevant to their situation. To create this wonderful experience, AutAware will check many different parameters such as user's income, education level, relevance to the individual with autism, and languages which user can speak etc.

Moreover, to provide a social support to those families AutAware will behave like a social platform. There are forums which users can share their stories, discuss about autism and ask for advice. Unlike any other platform, AutAware will provide a smart forum system. Depends on user's location, date and the information collected from the user, it will order the forum posts.

3.2 Functional Requirements

3.2.1 Information Management

- Users should be able to find and get information about nearby autism centers depending on their economic situation and language preferences.
- Users should be able to search for articles about autism depending on their language preferences.
- Users should be able to see news about autism depending on their language preferences.
- Users should be able to see the comments of other users about autism centers.
- Autism centers should be able enter their informations.

3.2.2 User Network

- Users should be able to register to the system. After they provide necessary information, there will be verification to register for preventing spam accounts.
- Users will have their user profile which will contain their personal information that they wish to share. Users should be able to update their user information.
- Users should be able to share their story on the platform.
- Users should be able to see the stories which are relevant to them.
- Users and centers should be able to create common events.
- Users should be informed by application when there is nearby event.
- Users should be able to see the details of events such as location, description and quota.
- Users should be able to enrol to the events.
- Users should get recommendations about nearby places to socialize their child.

3.2.3 Donation

- Advertising revenues will be donated to users in need.

3.2.4 Advertising

- Users should be able to see the advertisements which are relevant to them.

3.3 Nonfunctional Requirements

3.3.1 Usability

- The application needs to have a user friendly interface that can be easily understood and used by people of different education levels.
- The application needs to be freely accessible on Google Play Store for android devices and on the Google Chrome web browser.

3.3.2 Reliability

- The application needs to be stable and avoid any interruptions/crashes.

3.3.3 Security

- The application needs to secure user information from any possible threats.

3.3.4 Scalability

- The application needs to have databases that can scale effectively for potential user growth.

3.3.5 Performance

- The application should effectively crawl the web looking for autism related news and articles in fixed intervals of time.
- The choice of database should be optimized so that users can quickly and easily look for past articles.
- Load time of the web-based application should be low.
- Uptime of the web-based application should be high.

3.3.6 Supportability

- There will be a user study after each iteration of the project to improve usability of the application.

3.3.7 Extensibility

- In the future, application may need to include new features so it should be open to future additions.

3.4 Pseudo Requirements

- The platform will have a cloud database.
- The platform will be as both web and android applications.
- Crawling will be developed in Python using Scrapy library.
- Android Studio and React Native will be used for the development of Android-based application.
- React, Maven, Spring will be used for the development of the web-based application.
- Heatmap analysis will be integrated for visitor recording and it
- will be used for selecting the ad that works best for the user
- Google AdSense will be used for advertisement purposes.
- Default Google AdSense filter will be used to generate user specific ads.

3.5 System Models

3.5.1 Use Case Model

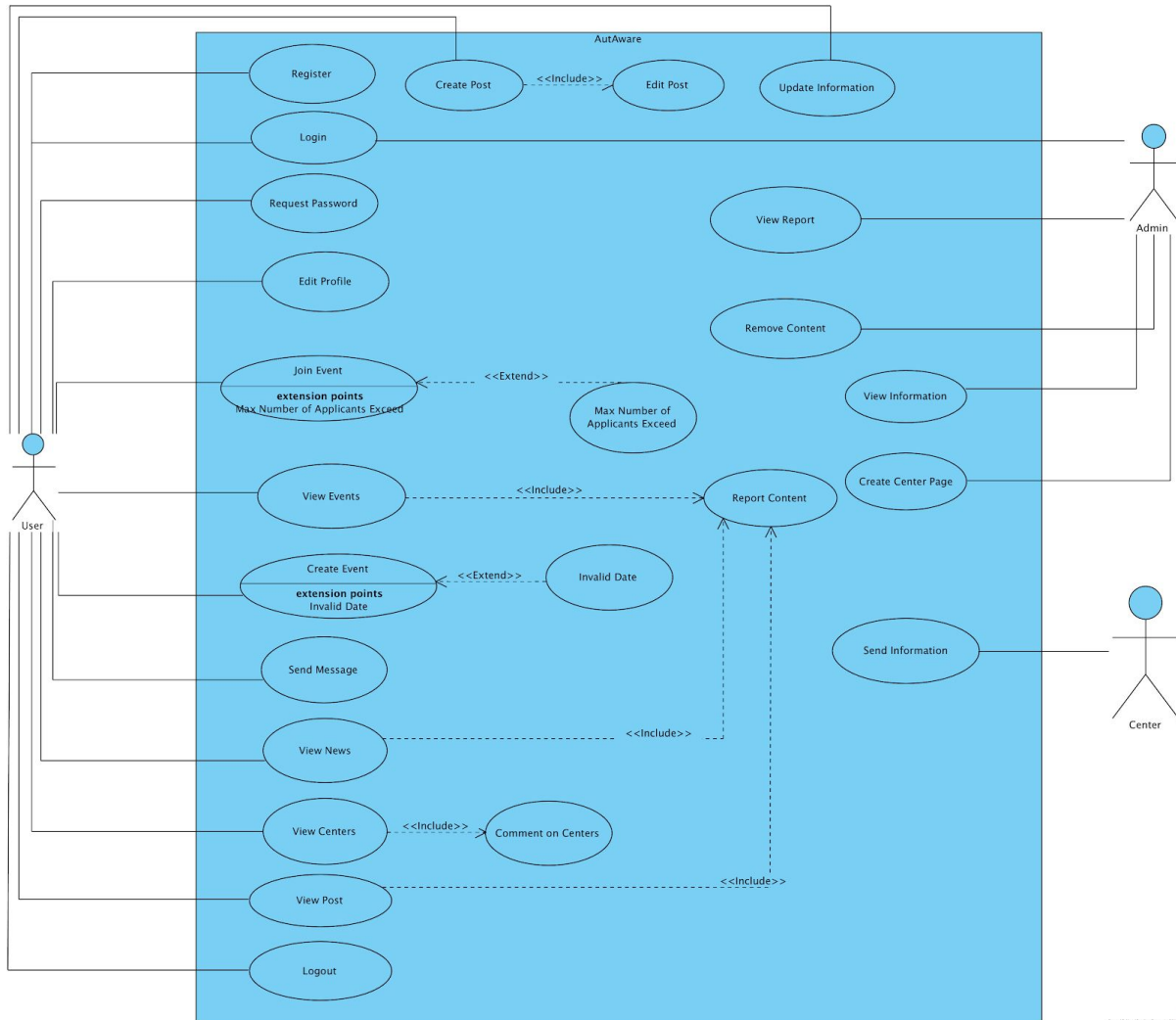


Figure 1: Use Case Diagram

3.5.2 Scenarios

3.5.1.1 User Registration

Actors: User

Entry Conditions:

- User opens the website/application.
- User is in the registration page of the application.

Exit Conditions:

- User has registered himself/herself in the application.
- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

1. User opens website.
2. The website checks if the user has logged in before and if the "Remember Me" option was active.
3. If not the case the user clicks on the "Register" button and is redirected to the "User Registration" page.
4. User enters his/her details.
5. The user clicks on the "Confirm Registration" button.
6. The application verifies the credentials and creates a user account in the database.
7. The user is logged in and redirected to the "News" page.

Alternate Flow of Events:

6A1. User did not fill the fields properly.

1. The application denies the registration request.
2. The application prompts the user to enter valid values in the registration form.
3. The use case continues from step 4.

6A2. An account with the username/email the user entered already exists.

1. The application denies the registration request.
2. The application alerts the user that the username/email he/she entered is already in use by a different account.

3. The application prompts the user to enter a different username/email.
4. The use case continues from step 4.

3.5.1.2 User Login

Actors: User, Admin

Entry Conditions:

- User/Admin opens the website/application.
- User/Admin is in the "Login Page" of the application.

Exit Conditions:

- User/Admin has logged in to the application.
- User/Admin closes the application/website.
- User/Admin desires to go to a different page.

Main Flow of Events:

1. User/Admin opens website.
2. The website checks if the user/admin has logged in before and if the "Remember Me" option was active. If user/admin is already logged in, the user/admin is redirected to the landing page/ home page.
3. If user/admin has not logged in before or if the "Remember Me" option was inactive, users/admins click on the "Login" button.
4. The user/admin is redirected to the "User Login" page.
5. User/Admin enters his username and password and based on his/her preference activates the "Remember Me" option.
6. The application checks the authenticity of his/her credentials and if they are correct the user/admin is successfully logs in.
7. Once the user/admin is logged in, the application redirects them to the news page.

Alternate Flow of Events:

6A1. The user has entered invalid credentials.

1. The application denies the login request.
2. The application informs the user that invalid credentials have been entered.
3. Use case continues from step 5.

3.5.1.3 Request New Password

Actors: User

Entry Conditions:

- User is in the “User Login” page.
- User clicks on the “Forgot Password?” button.

Exit Conditions:

- User successfully sends a request to change his/her password.
- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

1. In the “User Login” page the user clicks on the “Forgot Password?” button.
2. The user is prompted to enter his/her username or e-mail address to send a new password.
3. The user clicks on the “Reset Password” button.
4. The system creates a random generated a 10 character alphanumeric password, updates the user's password stored in the database and mails the password to the user's email address.

3.5.1.4 Edit Profile

Actors: User

Entry Conditions:

- Edit Profile includes Login use case.
- User is in the account details page and clicks on the “Edit Profile” button.

Exit Conditions:

- User finished editing his/her profile and clicks on the “Save Changes” button.
- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

1. User opens the application/webpage.
2. User logs in.
3. User clicks on “Account Details” to go to his profile page.

4. User clicks on the “Edit Profile Page”.
5. User makes desired changes to his profile.
6. User clicks on the “Save Changes” button.
7. The application checks if valid information was entered. (Data is suitable for the field). If any field is invalid, the application alerts the user to revise his changes. If the changes are valid saves the information to the database and redirect the user to the account details page.

3.5.1.5 View Events

Actors: User

Entry Conditions:

- View Events includes Login use case..
- User clicks on “Events” on the navigation bar.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

1. User opens the navigation bar.
2. User clicks on “Events” on the navigation bar.
3. The application redirects the user to the “Events” page.
4. Using Google Maps API a map is displayed containing markers showing the locations of events. The map is centered on, if available the user's location information, otherwise the last position the map was centered at.
5. The user selects a marker.
6. A text box appears on top of the marker displaying information about the event. This information includes the date and address the event will take place, a description of the event and how many users have joined that event. It also has a button to let players join that event.
7. The user can continue to look at new events by clicking on markers.

Alternate Flow of Events:

- 4A1. User wants to view events in a list rather than a map and decides to use the search bar to look for an event.

1. User types in keywords to search for in the search bar.
2. The application searches the database for related events and displays them under the search bar.
3. The retrieved events are displayed in a list. The list includes information mentioned in the main flow of events and a “Join Event” button.

3.5.1.6 Join Event

Actors: User

Entry Conditions:

- Join Event includes Login use case.
- User clicks on “Events” on the navigation bar.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

4. User opens the navigation bar.
5. User clicks on “Events” on the navigation bar.
6. The application redirects the user to the “Events” page.
7. User selects an event from either the search results or the map.
8. User clicks the “Join Event” button.
9. The system registers the user to that event.

3.5.1.7 Create Event

Actors: User

Entry Conditions:

- Create Event includes Login use case.
- User clicks on “Events” on the navigation bar.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.
- User successfully creates an event.

Main Flow of Events:

1. User logs in.
2. User clicks on “Events” on the navigation bar.
3. The application redirects the user to the “Events” page.
4. User clicks on the “Create Event” button.
5. The application presents a form to the user for creating an event.
6. User enters necessary information and clicks on “Create Event”
7. The application checks if the fields are valid. If they are the event is created and the user is redirected to the events page. If not the application notifies which fields are invalid to the user.

3.5.1.8 View My Events

Actors: User

Entry Conditions:

- View My Events includes Login use case.
- User clicks on “My Events” on the navigation bar.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

1. User logs in.
2. User clicks on “My Events” on the navigation bar.
3. The application redirects the user to the “My Events” page.
4. The application lists the events that the user has participated in or created in chronological order.

3.5.1.9 Manage My Events

Actors: User

Entry Conditions:

- User is logged in.

Exit Conditions:

- User closes the application/website.

- User desires to go to a different page.

Main Flow of Events:

1. User logs in.
2. User clicks on “My Events” on the navigation bar.
3. The application redirects the user to the “My Events” page.
4. The application lists the events that the user has participated in or created in chronological order.
5. User clicks the “Manage Event” button next to events that are in the future.
6. If the it is an event the user joined, he/she can leave the event. If it is an event the user created, he/she can change the details of the event or cancel the event.

3.5.1.10 View News

Actors: User

Entry Conditions:

- User is logged in.
- User opens the navigation bar.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

1. User clicks on “News” in the navigation bar.
2. The application redirects the user to the “News” page.
3. The application retrieves and displays snippets of news based on the user’s profile, the date and other parameters.
4. The user selects a news article that he/she desires to read.
5. The application displays the entire content of the news article.

Alternate Flow of Events:

4A1. The user wants to sort the list.

2. The user selects a parameter and ordering method to sort the list.
3. The application sorts the retrieved information using the user’s input.
4. Use case returns to step 4.

4B1. The user wants to search for specific news using keywords (title, content, author etc.)

2. The user enters the keywords to use for searching.

3. The application retrieves relevant news articles from the database.

4. The results are displayed in a list. They are ordered by how relevant they are to the search terms.

5. Use case returns to step 4.

3.5.1.11 View Centers

Actors: User

Entry Conditions:

- User is logged in.
- The navigation bar is open

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.

Main Flow of Events:

1. User clicks on "Centers" on the navigation bar.
2. The application redirects the user to the "Centers" page.
3. The application retrieves the information regarding autism treatment centers.
4. The retrieved information is displayed in a list. Each center's name, location and contact information is included.
5. The user selects a center that he/she wants to know about.
6. Detailed information regarding the selected center is displayed.

Alternate Flow of Events:

5A1. The user wants to sort the list.

2. The user selects a parameter and ordering method to sort the list.

3. The application sorts the retrieved information using the user's input.

4. Use case returns to step 5.

5B1. The user wants to search for specific centers using keywords (name, address etc.)

2. The user enters the keywords to use for searching.

3. The application retrieves relevant centers from the database.
4. The results are displayed in a list. They are ordered by how relevant they are to the search terms
5. Use case returns to step 5.

3.5.1.12 View Post

Actors: User

Entry Conditions:

- View Post includes Login use case.
- The navigation bar is open

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.
- User has finished looking at posts.

Main Flow of Events:

1. User clicks on "Posts" on the navigation bar.
2. The application redirects the user to the "Posts" page.
3. The application retrieves posts from the database.
4. The posts are displayed as snippets ordered by their relevance to the user and the how recent the post is.
5. The user selects a post he/she wants to read.
6. The entire post is displayed to the user.

Alternate Flow of Events:

5A1. The user doesn't want to see the details of any post.

1. The user exits the application or goes to a different page.
2. End of use case.

3.5.1.13 Create Post

Actors: User

Entry Conditions:

- View Post includes Login use case.
- User is on Posts page.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.
- User has successfully created a post.

Main Flow of Events:

1. User clicks on the “Create Post” button.
2. The application displays a form for the user to fill out.
3. The user fills the fields and clicks on the “Confirm Post” button.
4. The application will confirm the post information and add the post to the database.
5. The application updates the displayed posts to include the latest post.

Alternate Flow of Events:

4A1. Invalid information is entered in the form.

1. The application alerts the user that invalid information was inputted.
2. The use case continues from step 3.

3.5.1.14 Send Message

Actors: User

Entry Conditions:

- Send Message includes Login use case.
- Send Message includes View Post use case.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.
- User has successfully sent a message.

Main Flow of Events:

1. User selects a post from the list.
2. User clicks on “Send message to the creator of this post”.
3. The application displays a form to the user.
4. The user fills the form based on what he wants to put in his message.
5. The application sends the message to the other user.

Alternate Flow of Events:

4A1. The user decides not to send a message.

1. The user closes the message form.
2. The use case ends.

3.5.1.15 Report Content

Actors: User

Entry Conditions:

- Report Content includes Login use case.
- Report Content includes View Post use case.
- Report Content includes View Event use case.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.
- User has successfully reported the content.

Main Flow of Events:

1. User selects a content from the list it can be either a news, comment, advertisement, post or an event.
2. User clicks on "Report this content".
3. The application displays a category list to the user.
4. The user selects a category from the list in which the content is related to.
5. The application sends the content id and category selected to the Admin as a report.
6. The application show a success message to the user.

Alternate Flow of Events:

- 4A1. The user decides not to report the content.
2. The user presses outside of the category list.
3. The use case ends.

3.5.1.16 Comment On Centers

Actors: User

Entry Conditions:

- User is logged in.

- Comment On Centers View Centers use case.

Exit Conditions:

- User closes the application/website.
- User desires to go to a different page.
- User has successfully commented on the content.

Main Flow of Events:

1. User selects a center from the list.
2. Detailed information about the selected center is displayed.
3. User open the comments section.
4. User clicks on “Comment on this Center”
5. The application displayed a message page to the user.
6. User fill the required fields regarding to the comment.
7. User clicks on “Submit Comment”.
8. The entire message is shown to the user.

Alternate Flow of Events:

- 6A1. The user decides not to comment to the center.
2. The user closes the application.
3. The use case ends.

3.5.1.17 View Report

Actors: Admin

Entry Conditions:

- Admin logged in.
- Admin is on the view reports page.

Exit Conditions:

- Admin closes the application/website.
- Admin desires to go to a different page.
- Admin has successfully commented on the content.

Main Flow of Events:

1. Admin selects a report from the list.
2. Detailed information about the selected report is displayed.

3.5.1.18 Remove Content

Actors: Admin

Entry Conditions:

- Remove Content includes Login use case.
- Remove Content includes View Report use case.
- Remove Content includes View Post use case.
- Remove Content includes View Event use case.

Exit Conditions:

- Admin closes the application/website.
- Admin desires to go to a different page.
- Admin has successfully removed the content.

Main Flow of Events:

1. Detailed information about the selected center is displayed.
2. User clicks on "Delete Content".
3. The application deletes the content from the database.
4. Success message is shown to the admin.

Alternate Flow of Events:

- 2A1. The admin decides not to remove the content.
2. The user closes the application.
3. The use case ends.

3.5.1.19 Send Information

Actors: Center

Entry Conditions:

- Center logged in.

Exit Conditions:

- Center closes the application/website.
- Center desires to go to a different page.
- Center has successfully sent the information.

Main Flow of Events:

1. The application displayed a form to the center.

2. Center fills the form with the required information.
3. Center clicks on “Send Form”.
4. The application sends the form to the admin.
5. Success message is shown to the center.

Alternate Flow of Events:

- 2A1. The center decides not to provide information.
 2. The center closes the application.
 3. The use case ends.

3.5.1.20 View Information

Actors: Admin

Entry Conditions:

- Admin logged in.
- Admin is on the view information page.

Exit Conditions:

- Admin closes the application/website.
- Admin desires to go to a different page.

Main Flow of Events:

1. Admin opens the informations page.
2. Admin clicks on “View detailed form”.
3. The form that is filled by the center is shown to the admin.

3.5.1.21 Create Center Page

Actors: Admin

Entry Conditions:

- Admin is logged in.
- Create Sender Page includes View Information.
- Create Sender Page includes View Centers.

Exit Conditions:

- Admin closes the application/website.
- Admin desires to go to a different page.
- Admin resends the form.

- Admin creates the center page.
- Admin deletes the form.

Main Flow of Events:

1. Admin opens the form.
2. Admin clicks on the “Accept center button”
3. The application creates a page for the center.
4. The applications shows a success message to the admin.
5. The applications show the center page to the admin.

Alternate Flow of Events:

- 2A1. Admin decides to delete the form.
2. Admin clicks on “Delete form”
 3. The applications deletes the form.
 4. A success message is shown to the admin.
- 2B1. Admin re-sends the form to the center.

3.5.3 Object and Class Model

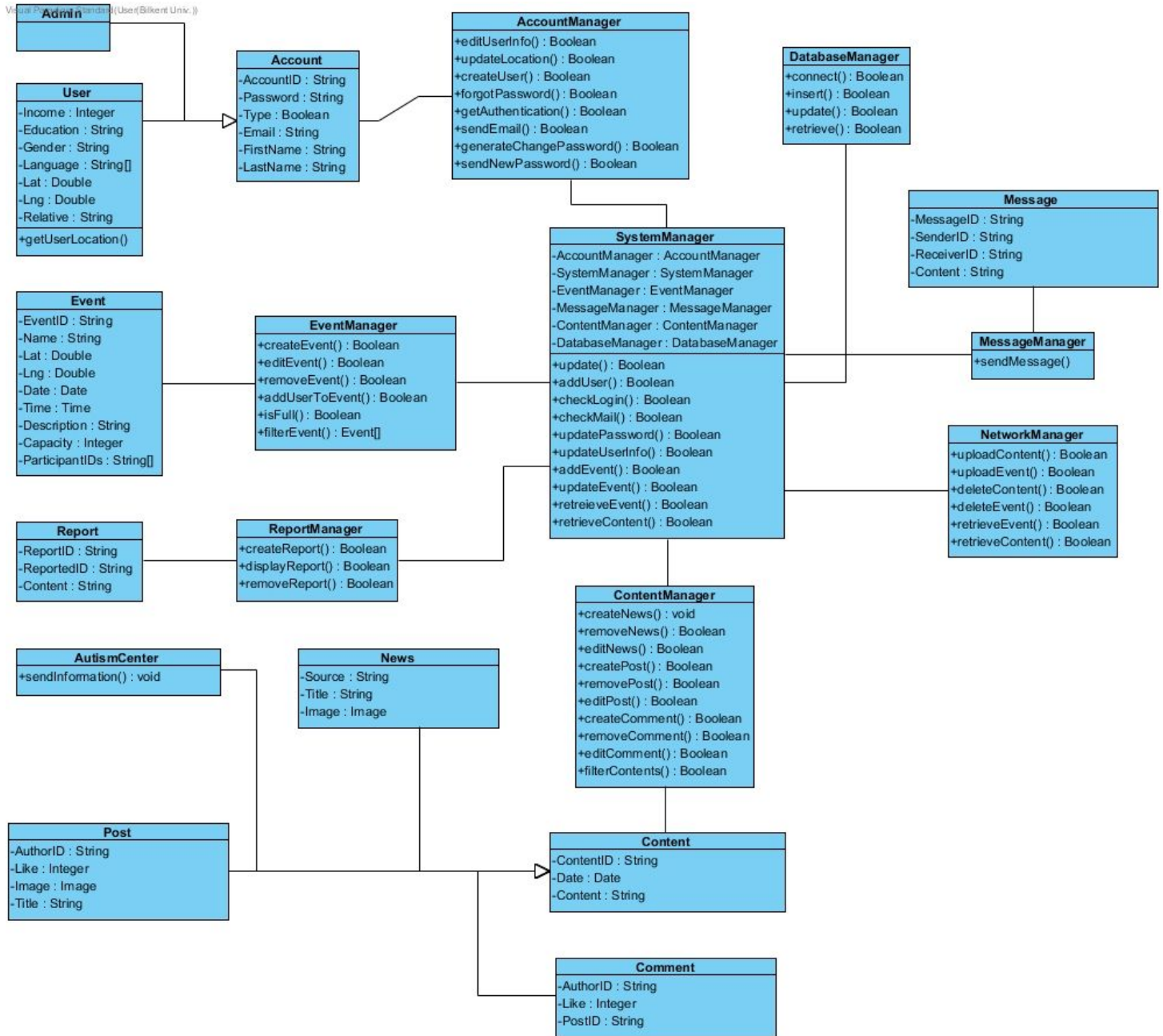


Figure 2: Class Diagram

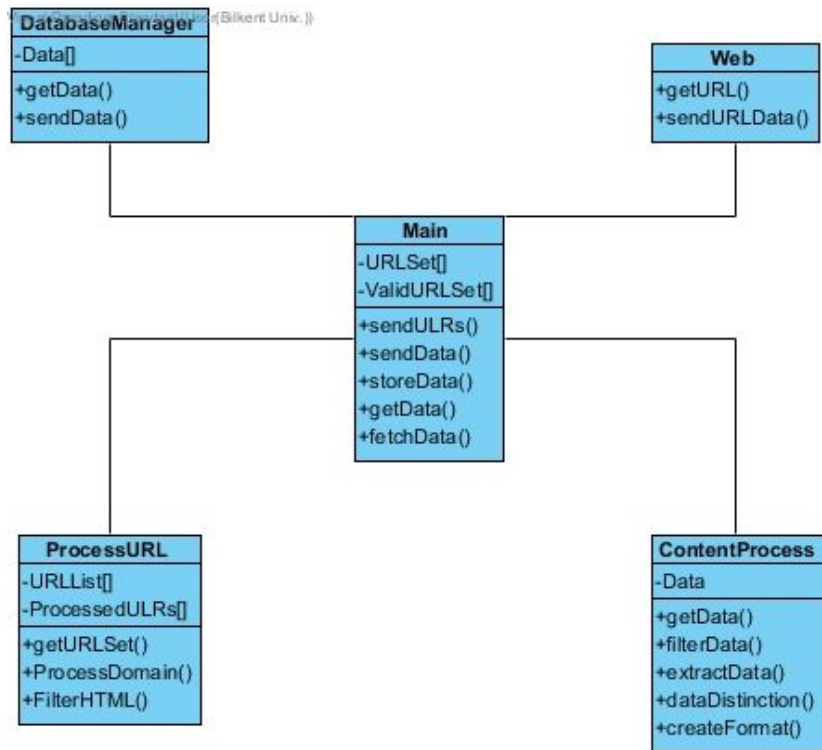


Figure 3: Crawler Class Diagram

The reasoning behind 2 different class diagrams is that one is for crawler. It will be written as a separate application and there is a possibility that we will not use the same language for both applications due to library dependencies.

3.5.4 Dynamic Models

In this section, the dynamic models of the proposed system will be explained in detail.

3.5.4.1 Sequence Diagrams

3.5.4.1.1 Register Sequence Diagram

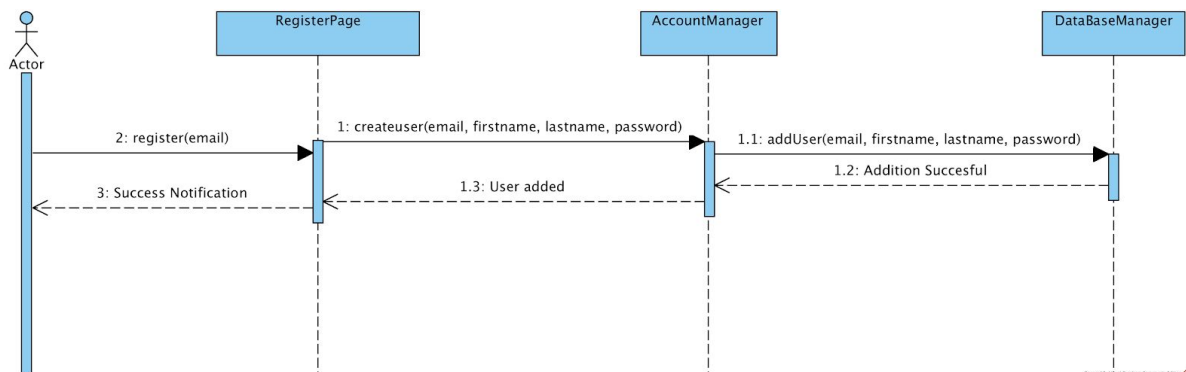


Figure 4: Register Sequence Diagram

In the sequence diagram above shows that, our actor Actor, wants to register to our platform. First Actor goes in to register page. On the register page, he enters his information. Autaware persists those information to database through Account Manager and DataBaseManager. System checks database if it is possible to register Actor to system. If it is possible add user, system prints a success notification to Actor.

3.5.4.1.2 Login Sequence Diagram

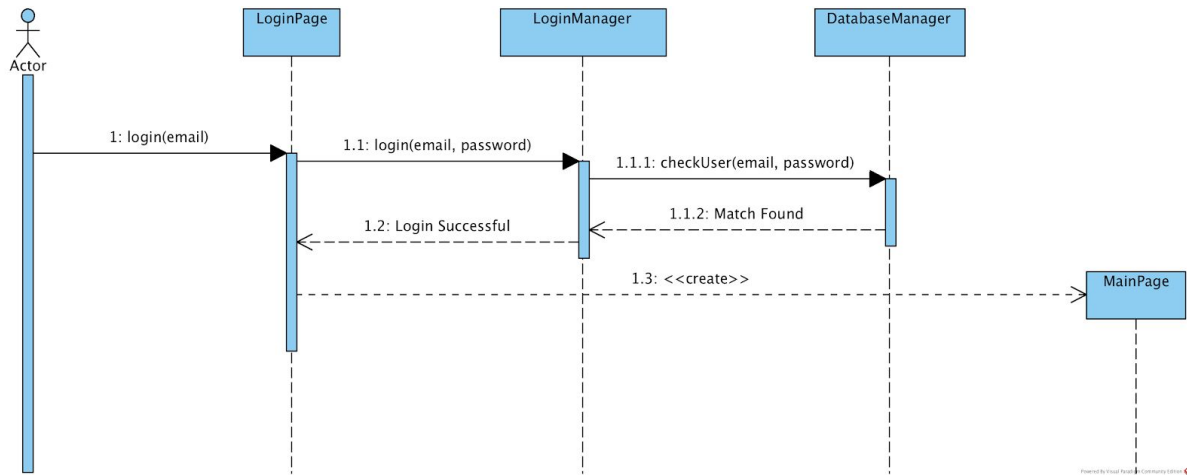


Figure 5: Login Sequence Diagram

In the sequence diagram above shows that, our actor Actor, wants to login to our platform. Again, like in the previous scenario, Actor goes into login page. On the register page, he enters his email and password. With the help of the LoginManager, user email and password is delivered to database manager. Database Manager checks if there is a match with that specific email and password. If there is a match, user is directed to main page.

3.5.4.1.3 Edit Profile Sequence Diagram

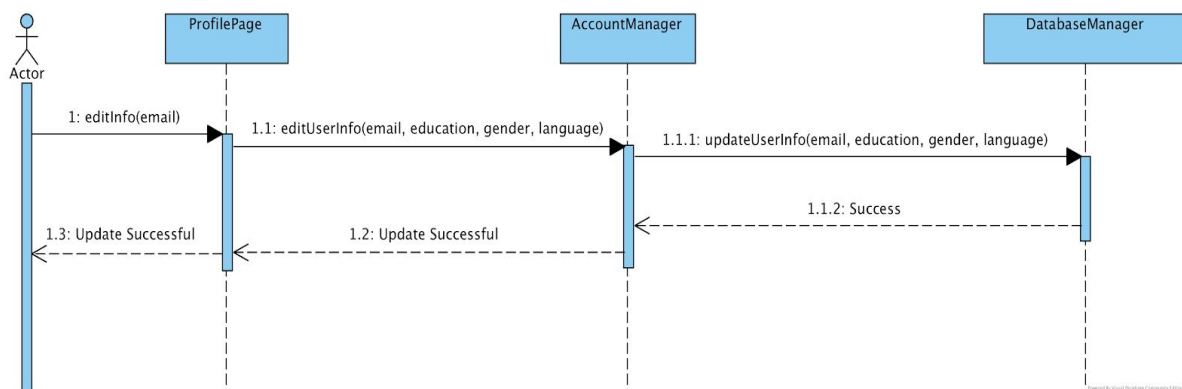


Figure 6: Edit Profile Sequence Diagram

The above diagram shows the case when Actor wants to change his user profile. We assumed that Actor is on his profile page. When he clicks edit profile and changes his information with account manager, system sends this changes to

database with database manager. If it is successful, user gets a successful notification.

3.5.4.1.4 Request New Password Sequence Diagram

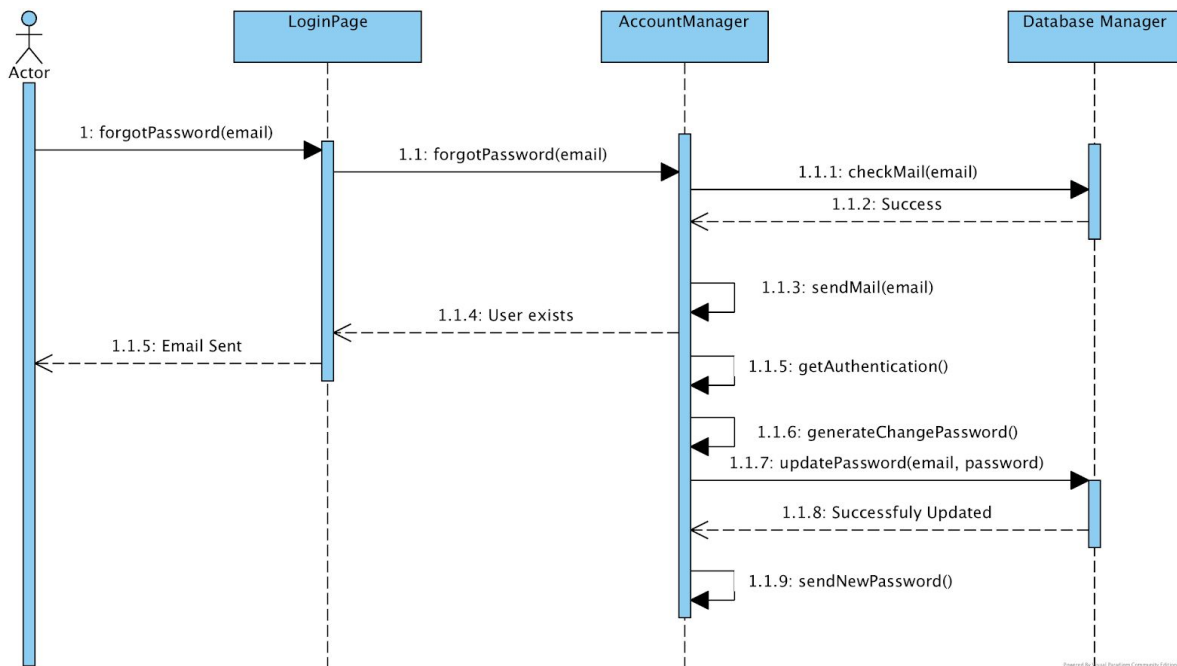


Figure 7: Request New Password Sequence Diagram

The diagram above shows the case where Actor forgets his password and clicks on the forgot my password button on login page. After clicking, he enters his email. Database manager persists this email to database for checking if user with that email address exist and if there is a match, system sends an email to him for continuing change password process. If system gets authentication from the email which is sent, a new password is generated and again send to Actor through email.

3.5.4.1.5 View Events Sequence Diagram

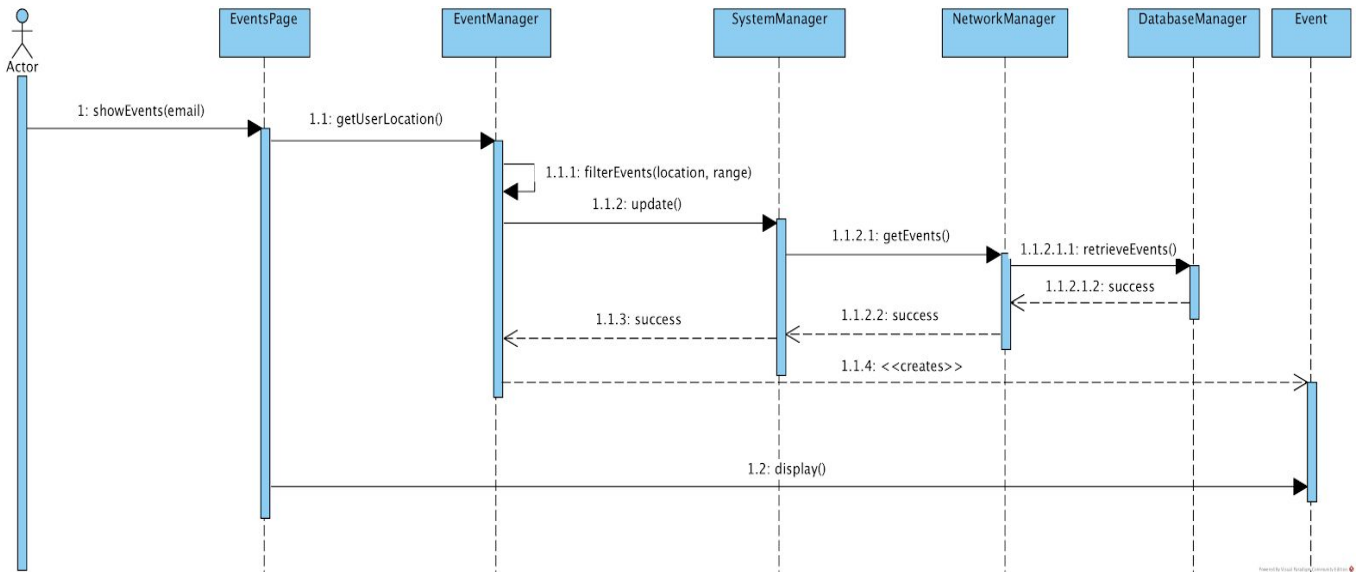


Figure 8: View Events Sequence Diagram

The diagram above shows the flow of execution when user, Actor wants to view events. On events page, if user specifies a range and clicks to show events, with the help of event manager, users location is processed to filter events according to Actors current location and range preferences. Event information is accessed from database through network manager. After necessary information is retrieved, event object is created for Actor to view Events.

3.5.4.1.6 Join Event Sequence Diagram

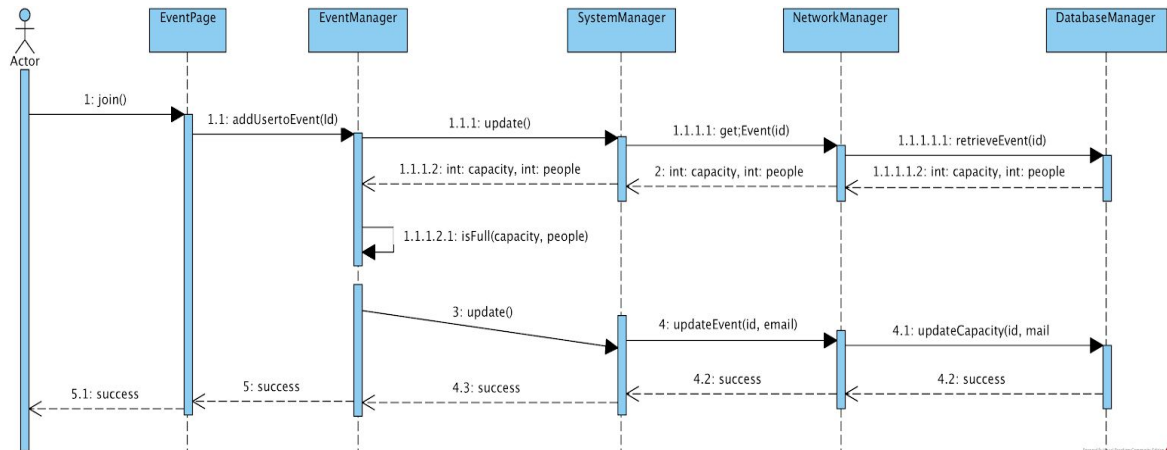


Figure 9: Join Event Sequence Diagram

The diagram above shows the case when Actor is on the events page, he desires to join an event. After clicking to join, System Manager updates the system and delivers request to network manager and database manager. From database, current number of people on the event and maximum capacity is returned. If event is not full, user is saved as a participant to that event. Lastly, database manager updates the database.

3.5.4.1.7 Manage My Events Sequence Diagram

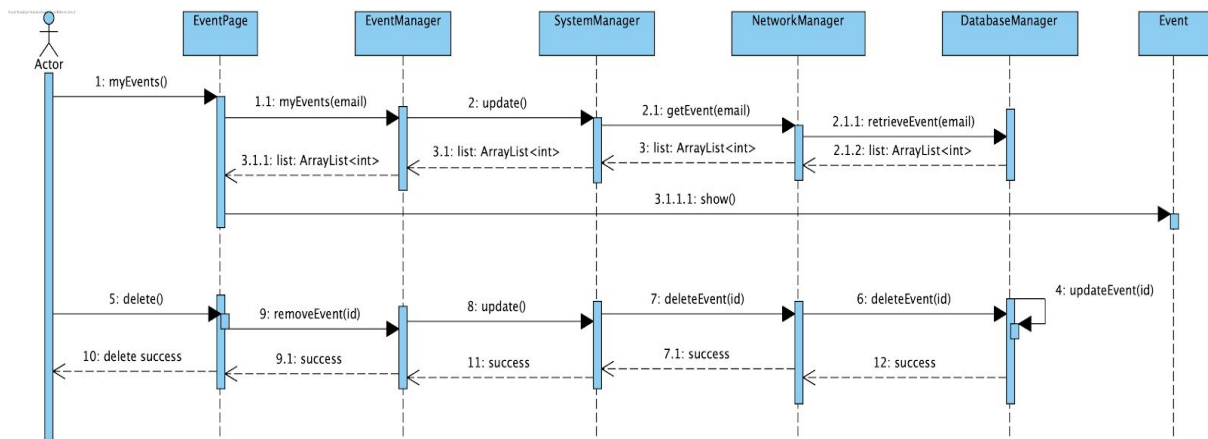


Figure 10: Manage My Events Sequence Diagram

The diagram above shows the case where Actor wants to manage events which he organizes. We assumed that event is already created by Actor. Again, like in the previous scenario, Actor wants to view events but this time he wants to view which he organizes. In this case, database manager returns the list of events that Actor organizes. In addition to this, after viewing events, Actor can desire to cancel event. On event page, he clicks on delete event. Event manager transfers this wish to system manager. Again with the same logic, event is deleted from database.

3.5.4.1.8 View Content Sequence Diagram

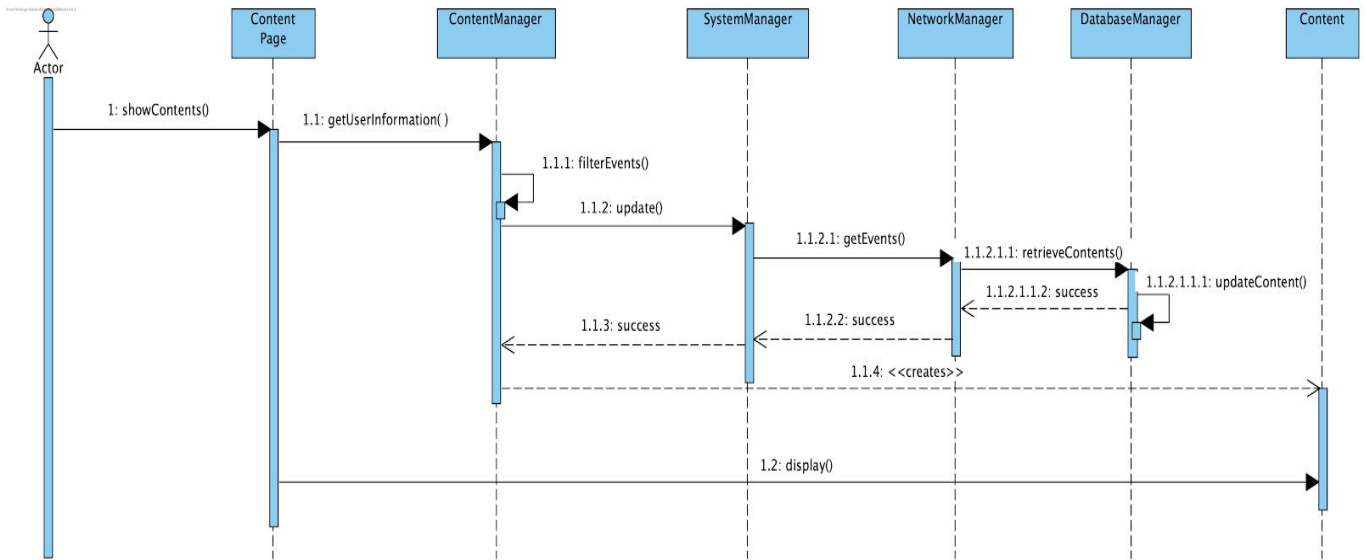


Figure 11: View Content Sequence Diagram

The diagram above shows the flow of execution when, Actor wants to view contents. On contents page, if user can specify contents which he wants to view like news or nearest autism centers etc. Content Manager receives view content request. Content information is accessed from database through network manager. After necessary information is retrieved, content object is created for Actor to view contents.

3.5.4 Dynamic Models

3.5.4.1 Register/Login Activity Diagram

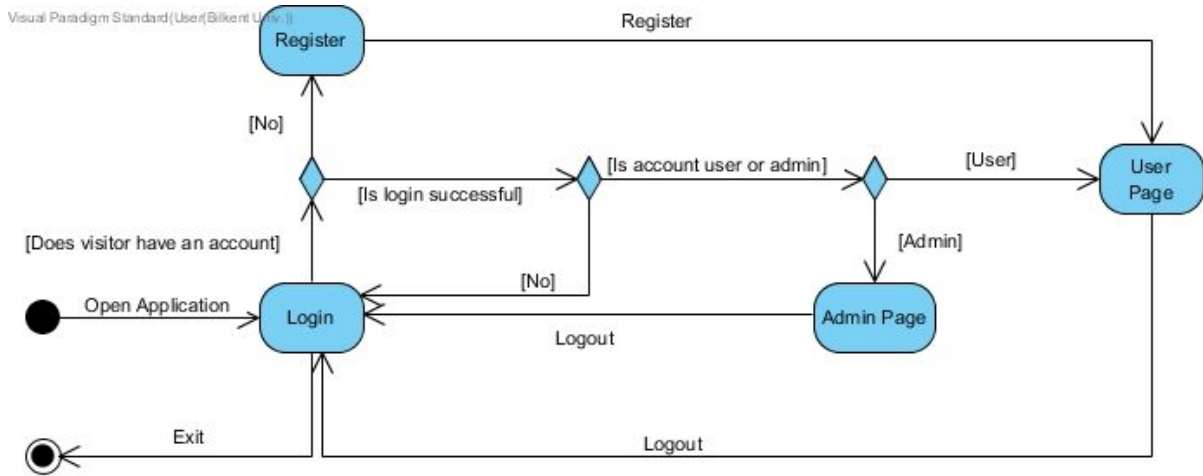


Figure 12: Register and Login Activity Diagram

3.5.4.2 Application Flow Activity Diagram

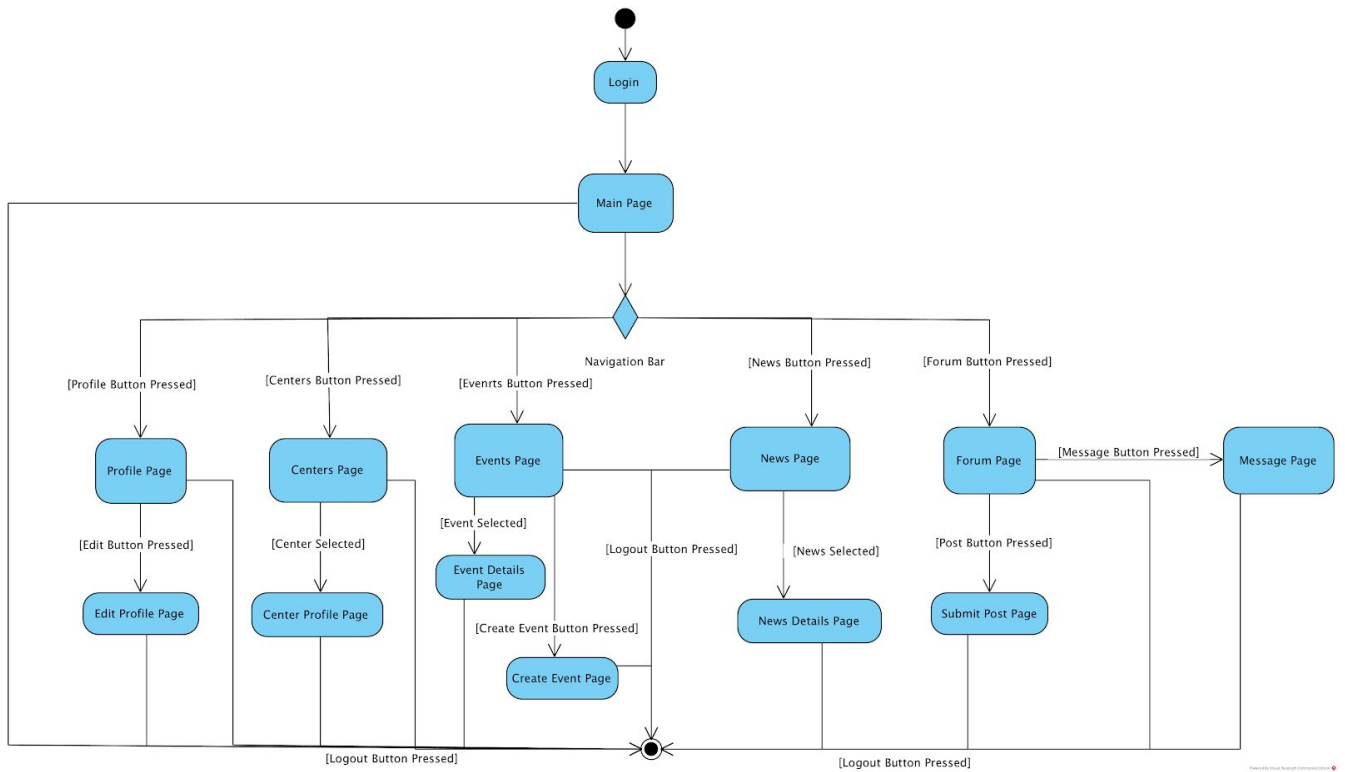


Figure 13: Application Flow Activity Diagram

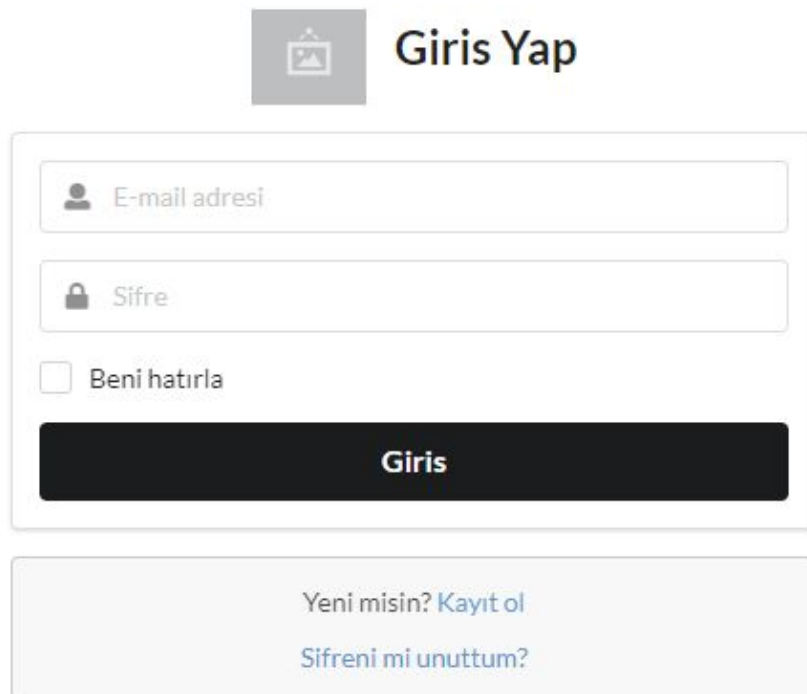
3.5.5 User Interface

None of the user interface designs in this section are finalized and therefore they are subject to change. There is a possibility that some components or colour choices can be changed to improve usability during development. Although, most of the fundamentals will stay same.

Mockups are written in Turkish because our target audiences are Turks, but the latest version will include English version as well.

3.5.5.1 Web Based Application Mockups


3.5.5.1.1 Login Page



The mockup shows a login page with a header area containing a grey square icon with a white camera symbol and the text "Giris Yap". Below this is a white form box with a rounded border. Inside the form, there are two input fields: the first is labeled "E-mail adresi" with a person icon, and the second is labeled "Sifre" with a lock icon. Below the password field is a checkbox labeled "Beni hatırla". At the bottom of the form is a black button with the white text "Giris". Below the form is a light grey box containing two links: "Yeni misin? Kayıt ol" and "Sifreni mi unuttum?".

Figure 14: Login Page Mockup

3.5.5.1.2 Register Page



Hesap Olustur


Cinsiyet Erkek Kadın

Kayıt

Zaten hesabın var mı? [Giris Yap](#)

Figure 15: Register Page Mockup

3.5.5.1.3 Reset Password Page



Sifreni Bul

Lutfen email adresinizi asagidaki bosluga yaziniz.

Bul

Figure 16: Reset Password Page Mockup

3.5.5.1.4 General Layout

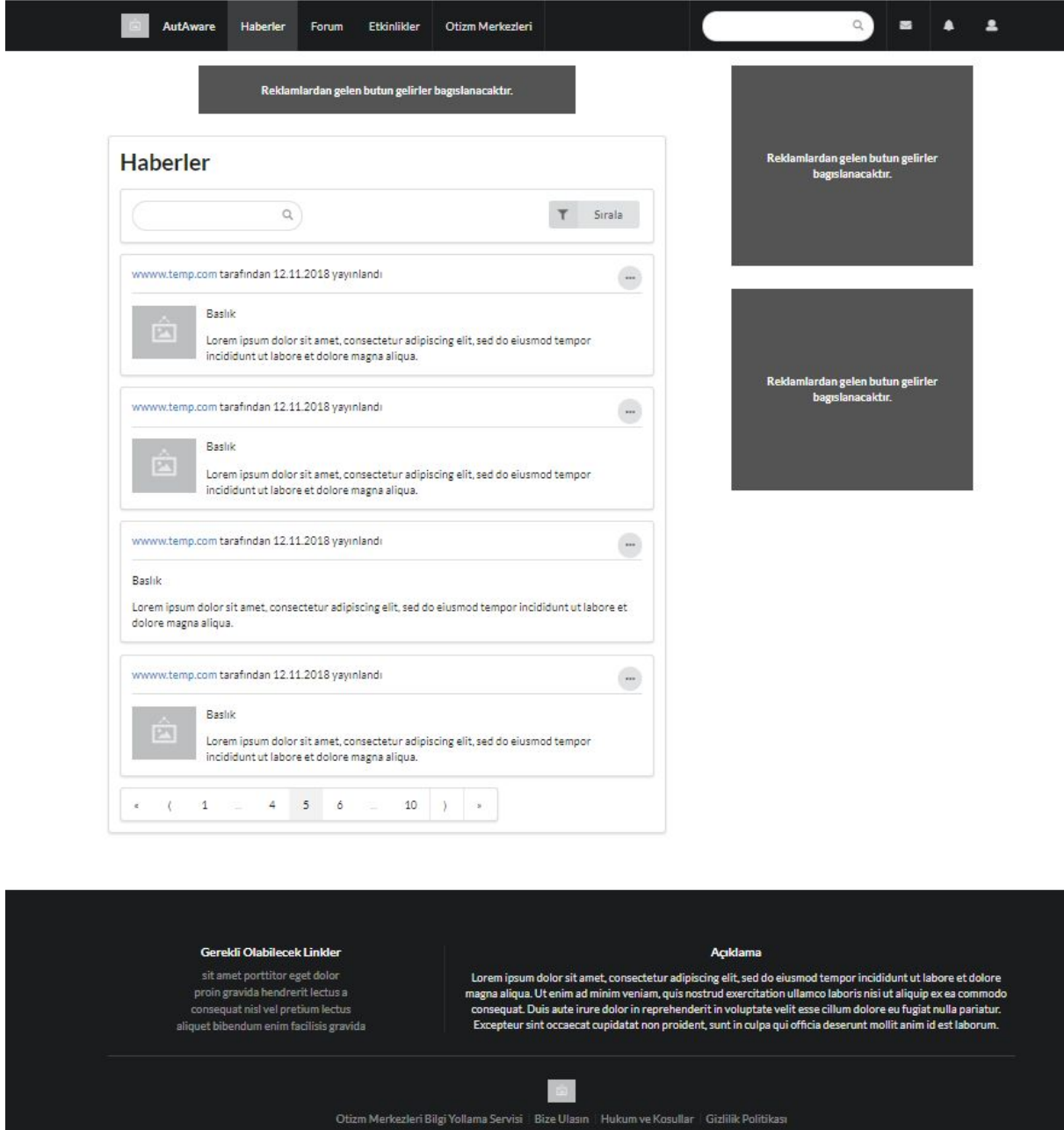


Figure 17: General Layout Mockup

AutAware Web Application is composed of 3 different layers which are Header, Body and Footer. Header and Footer says same through the application and only Body part changes.

3.5.5.1.5 Header

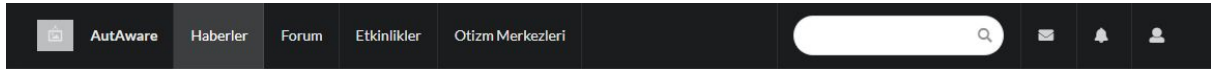


Figure 18: Header Mockup

An early header design that includes a navigation bar, quick search option and shortcuts.

3.5.5.1.6 Message Shortcut Feature

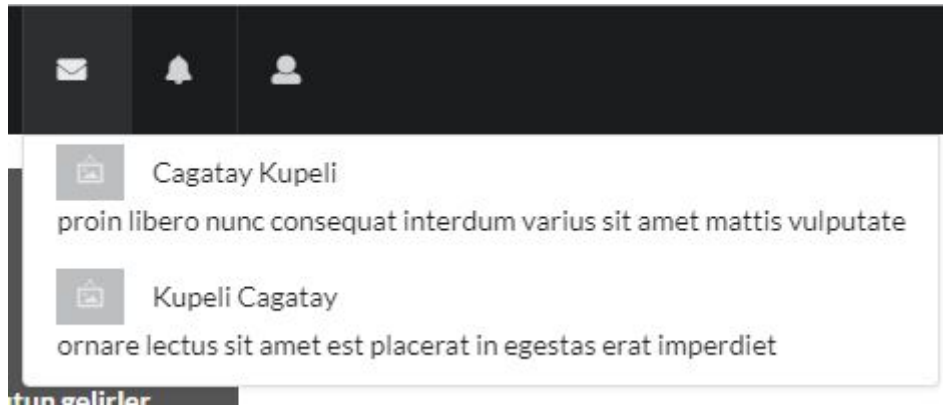


Figure 19: Message Shortcut Mockup

It will work both as Dropdown and Button. It displays unread messages.

3.5.5.1.7 Mention Shortcut Feature



Figure 20: Mention Shortcut Mockup

Similar to Message Shortcut Feature, but for mentions.

3.5.5.1.8 Settings

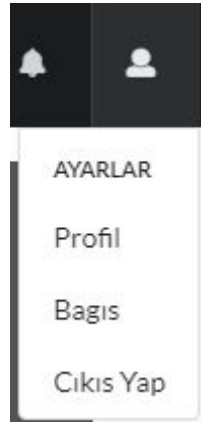


Figure 21: Settings Mockup

During development, new shortcuts can be added under Settings and named with different header.

3.5.5.1.9 Advertisements

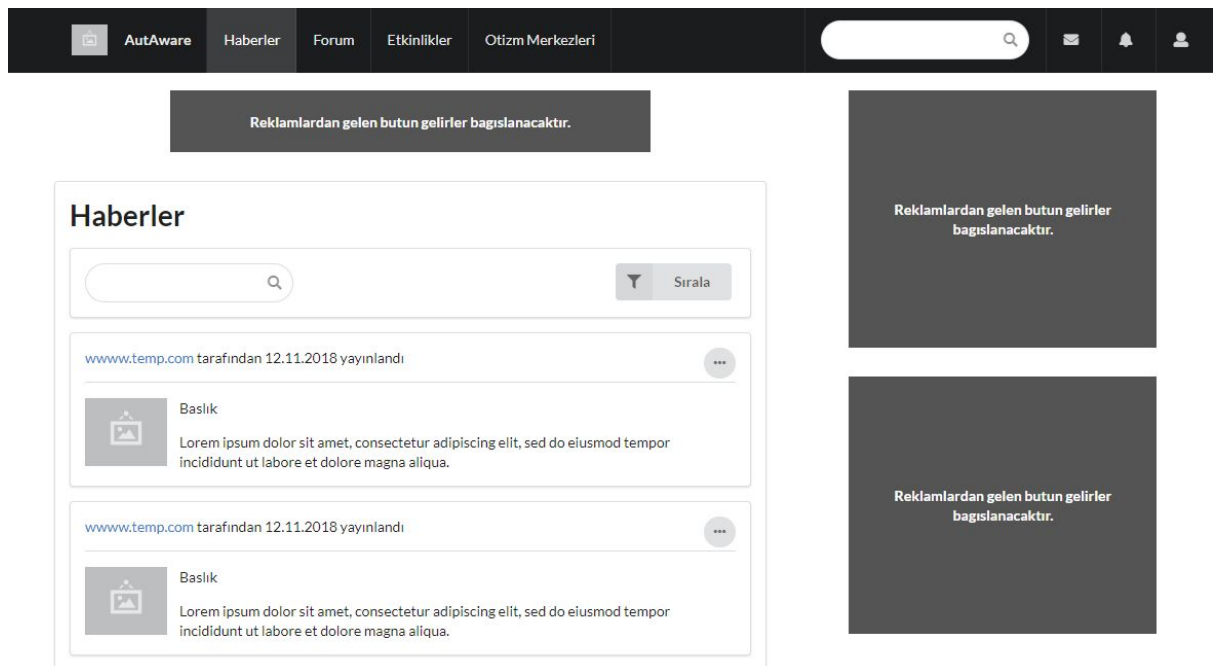


Figure 22: Advertisement Locations Mockup

All the money come from advertisements will be donated to people in need. Therefore we allocated some space for these advertisements.

3.5.5.1.10 Report Feature

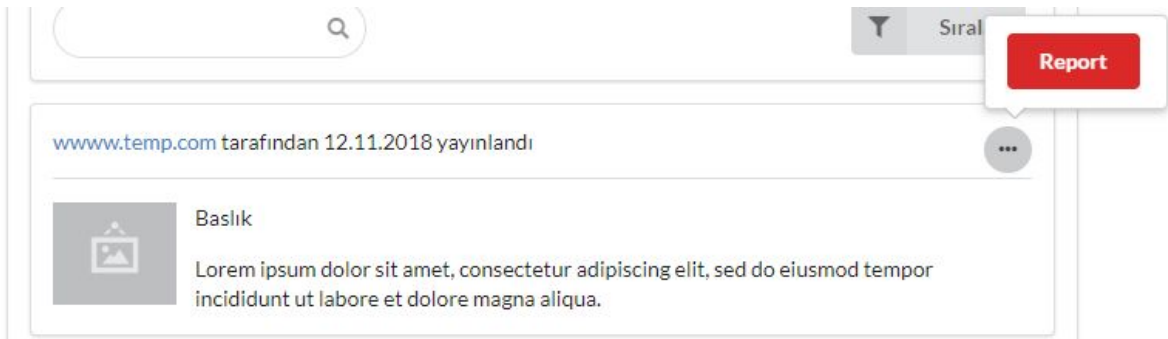


Figure 23: Report Mockup

A popup report button. This is a early design and probably gonna need some improvements to provide best user experience.

3.5.5.1.11 News Page

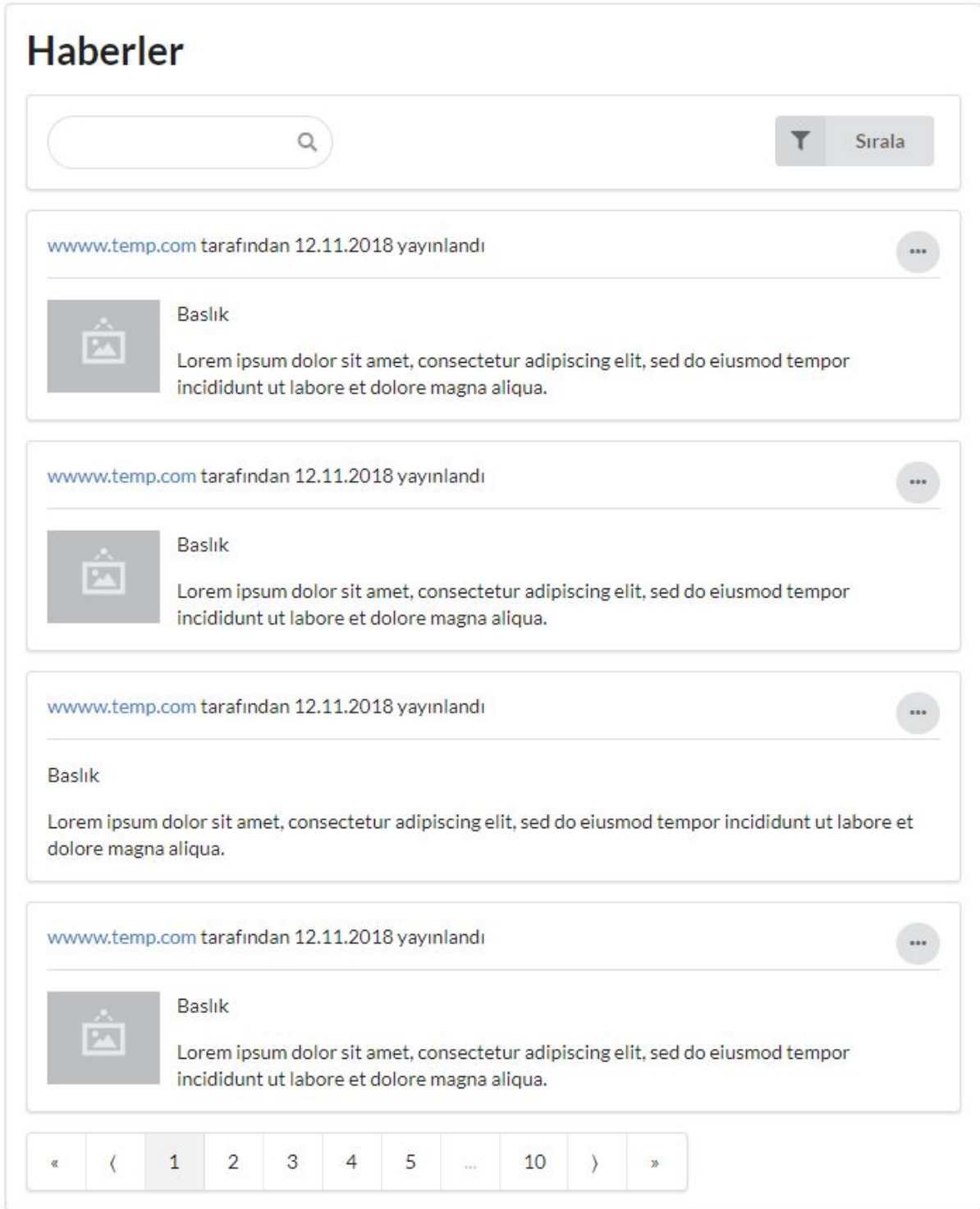


Figure 24: News Mockup

3.5.5.1.12 Filter Feature



Figure 25: Filter Mockup

We haven't decided that how smart listing work. Therefore it is better to provide more options that does not include in smart listing service.

3.5.5.1.13 Specific News Page

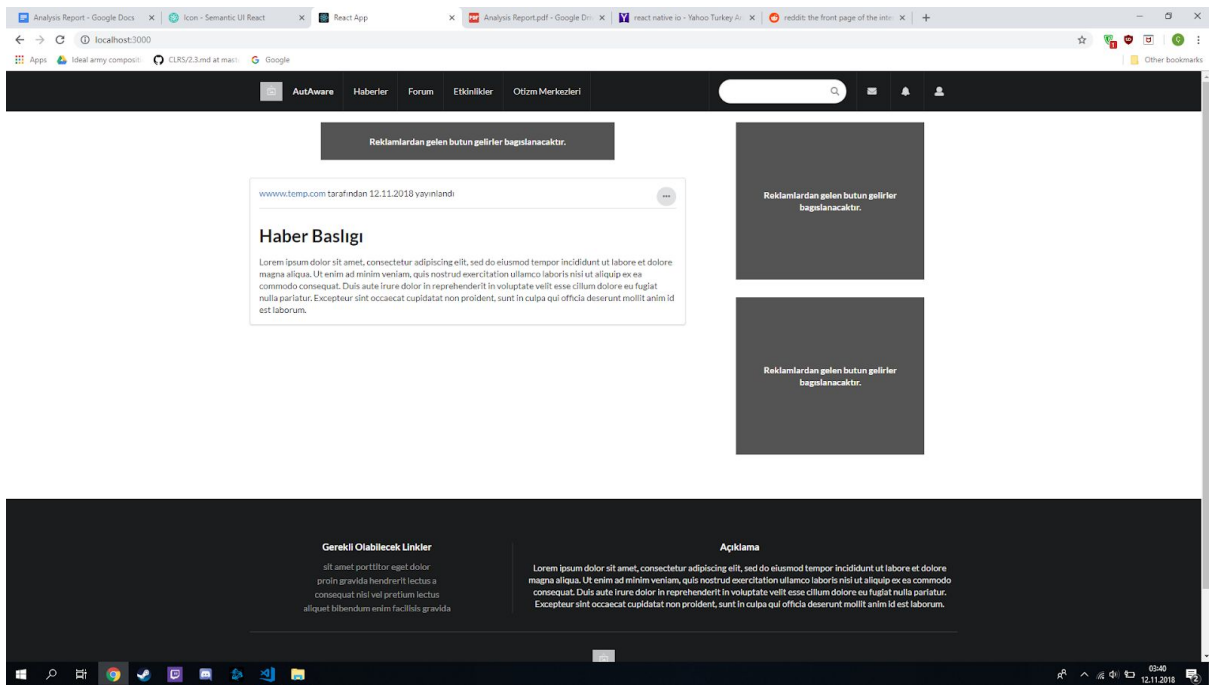


Figure 26: Specific News Mockup

3.5.5.1.14 Forum

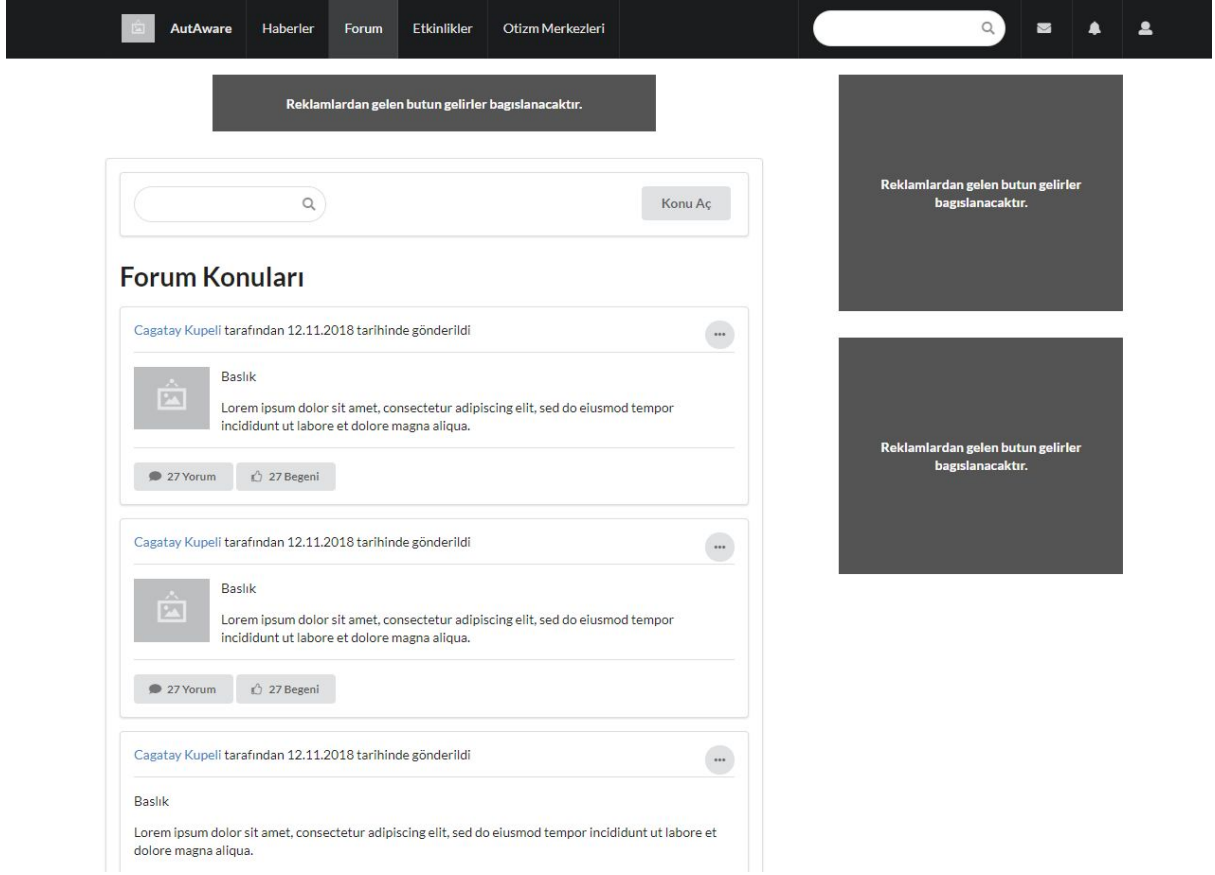


Figure 27: Forum Mockup

3.5.5.1.15 Specific Forum Posts

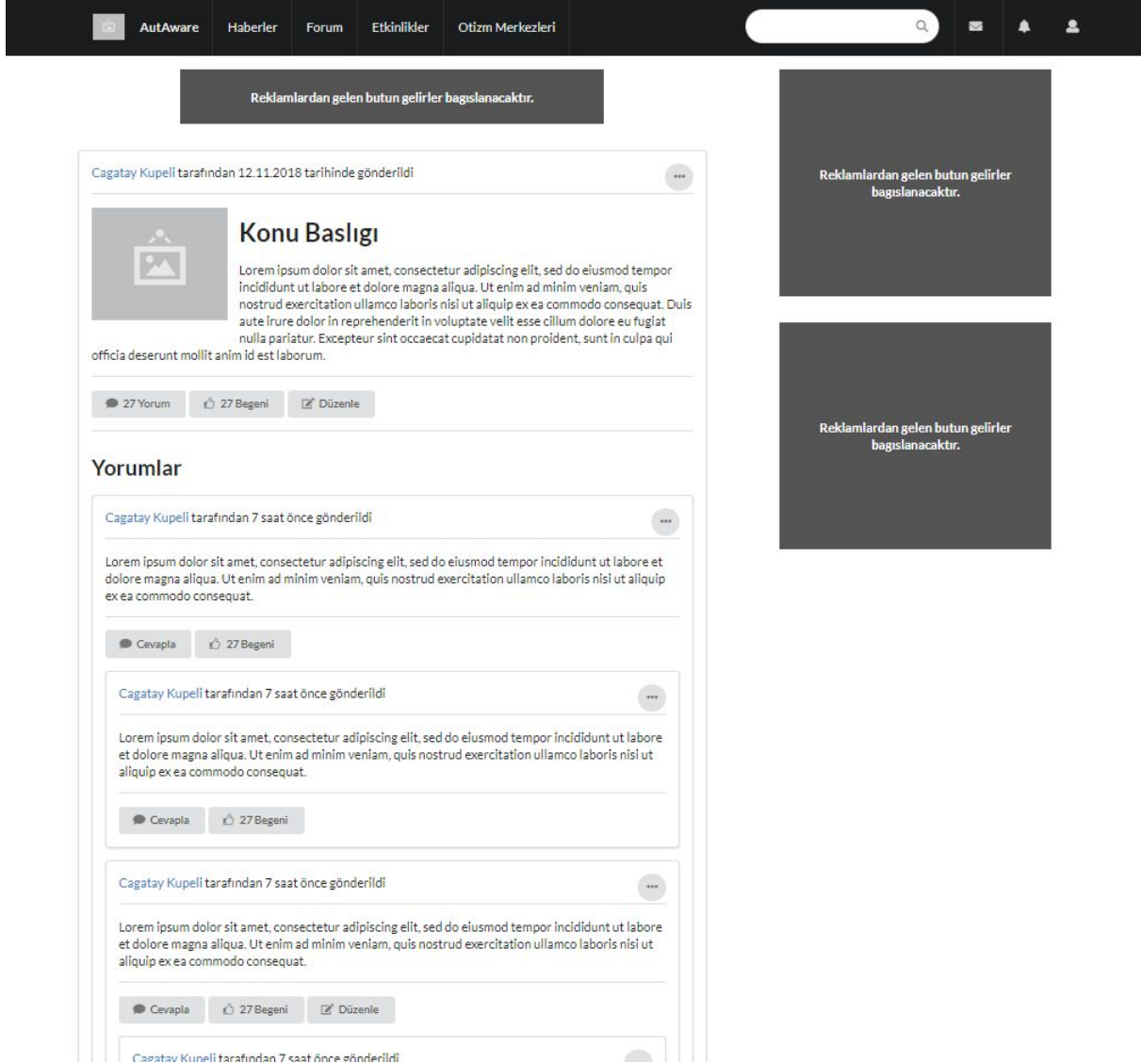


Figure 28: Specific Forum Post Mockup

Not all posts and comments include edit options. Only the author of that content can change that option.

3.5.5.1.16 Submit/Edit Post

AutAware Haberler Forum Etkinlikler Otizm Merkezleri

Reklamlardan gelen butun gelirler bagislanacaktir.

Konu Aç

Baslik

B I H ●

Yazi

Gönder

Reklamlardan gelen butun gelirler bagislanacaktir.

Reklamlardan gelen butun gelirler bagislanacaktir.

Figure 29: Submit/Edit Post Mockup

3.5.5.1.17 Comments

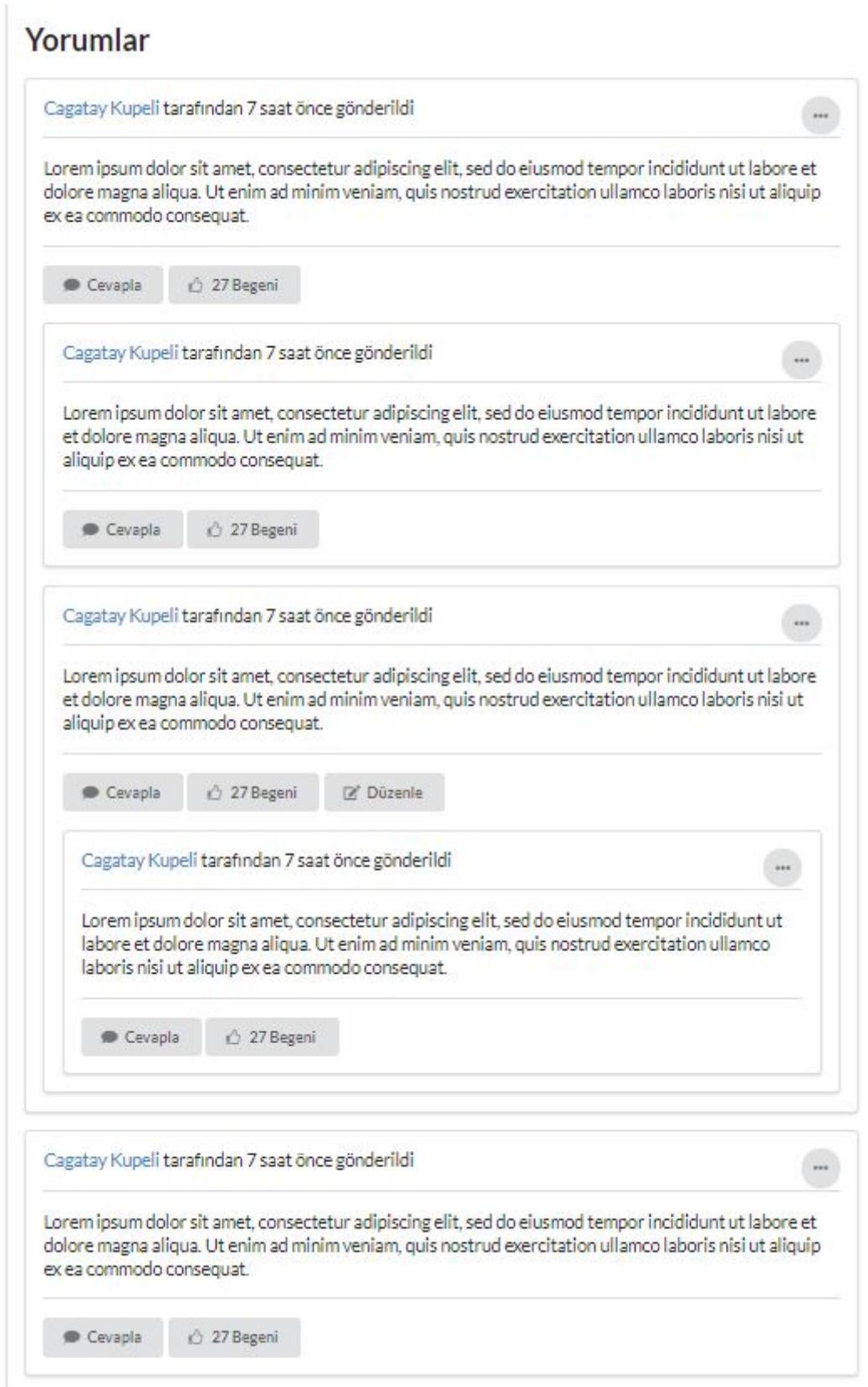


Figure 30: Comments Mockup

3.5.5.1.18 Events

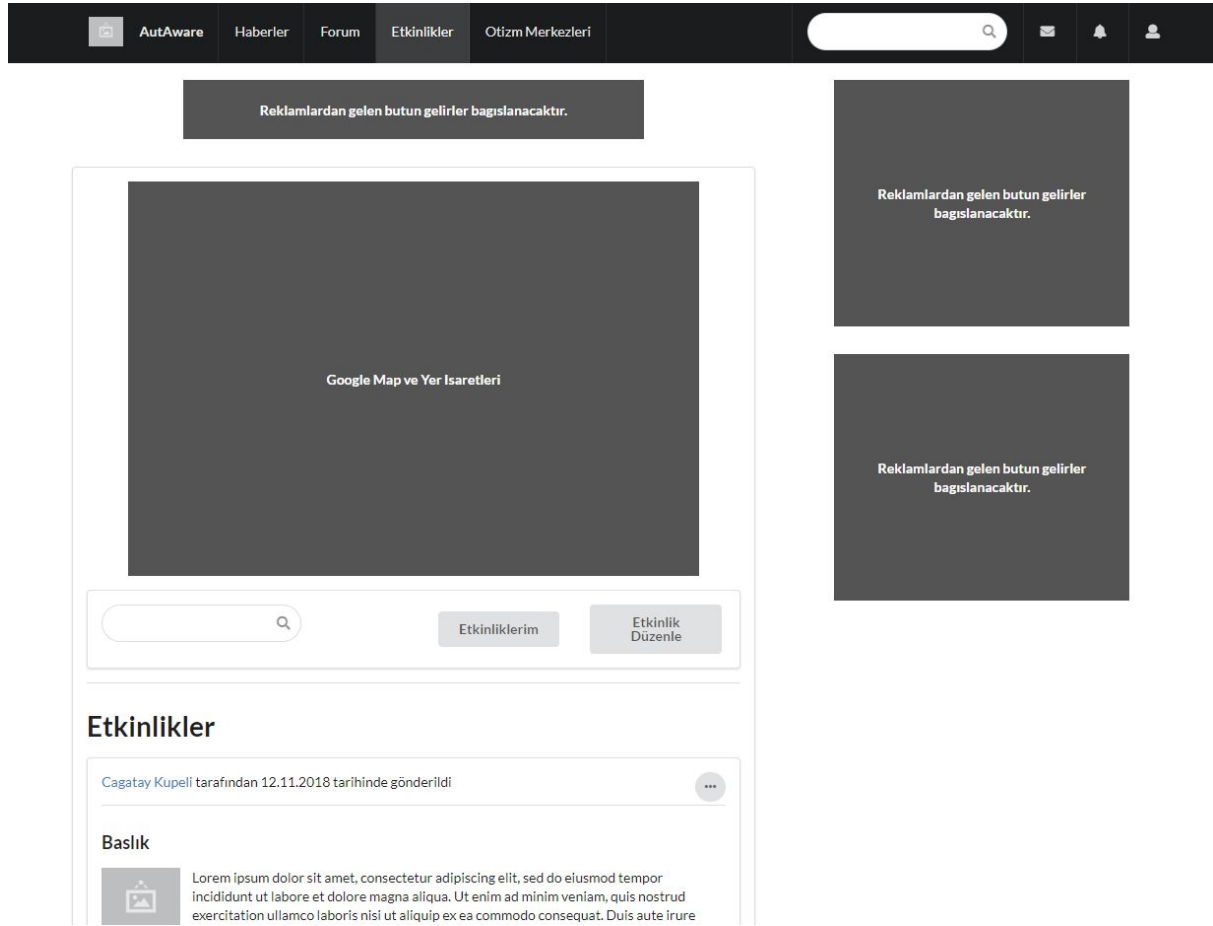


Figure 31: Events Mockup


When you type in search bar, it will automatically update the event list below. Same is true for other listing elements as well.

3.5.5.1.19 Event Listing

Etkinlikler

Cagatay Kupeli tarafından 12.11.2018 tarihinde gönderildi

Baslık


 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.

27/30 Katılımcı

Etkinlege Katıl

Cagatay Kupeli tarafından 12.11.2018 tarihinde gönderildi

Baslık


 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.

27/30 Katılımcı

Etkinlegi Iptal Et

Cagatay Kupeli tarafından 12.11.2018 tarihinde gönderildi

Baslık

 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.

27/30 Katılımcı

Etkinlege Katıl

Figure 32: Event Listing Mockup

3.5.5.1.20 Specific Event

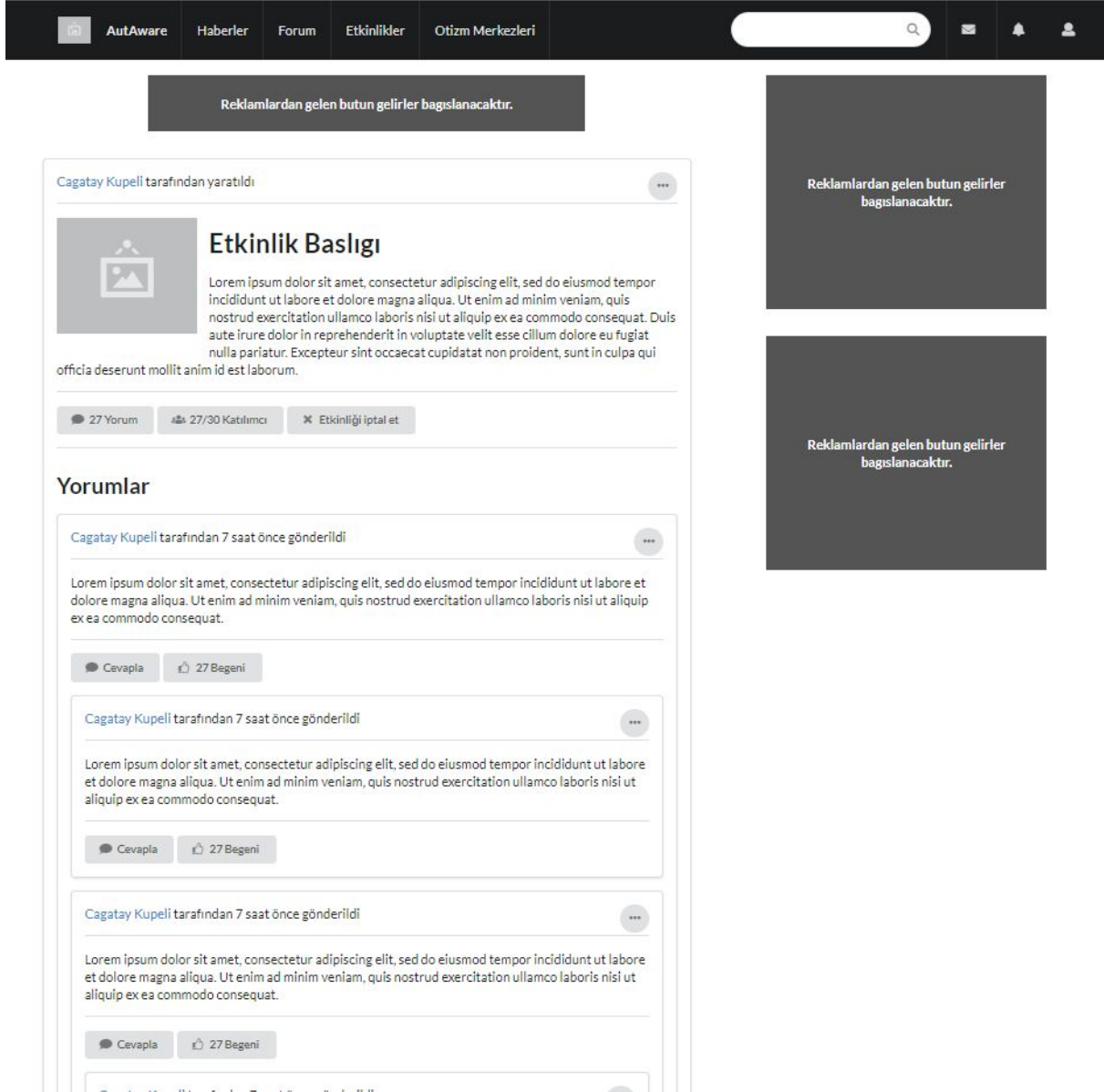


Figure 33: Specific Event Mockup

3.5.5.1.21 Autism Centers

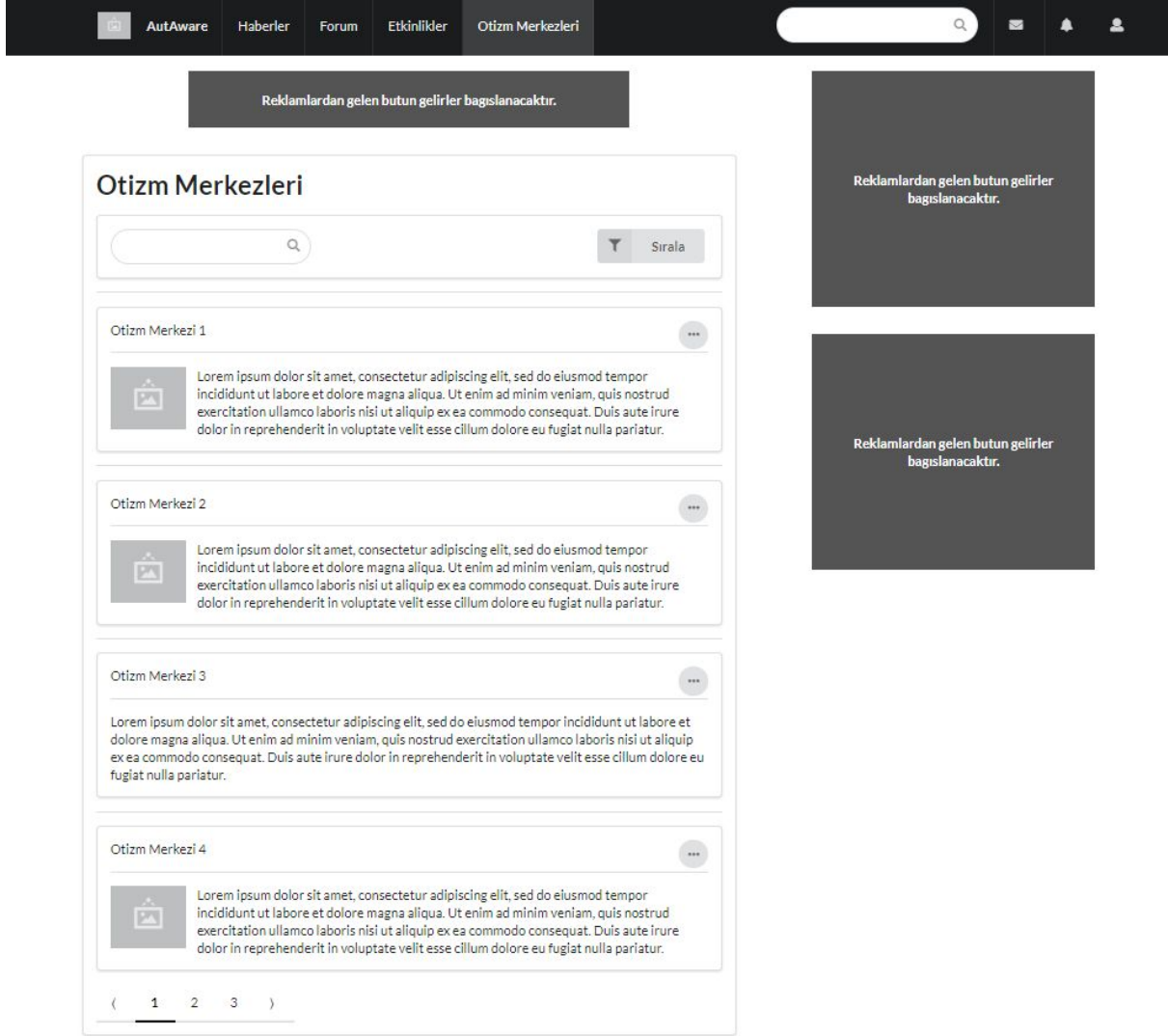


Figure 34: Autism Centers Mockup

3.5.5.1.22 Specific Center

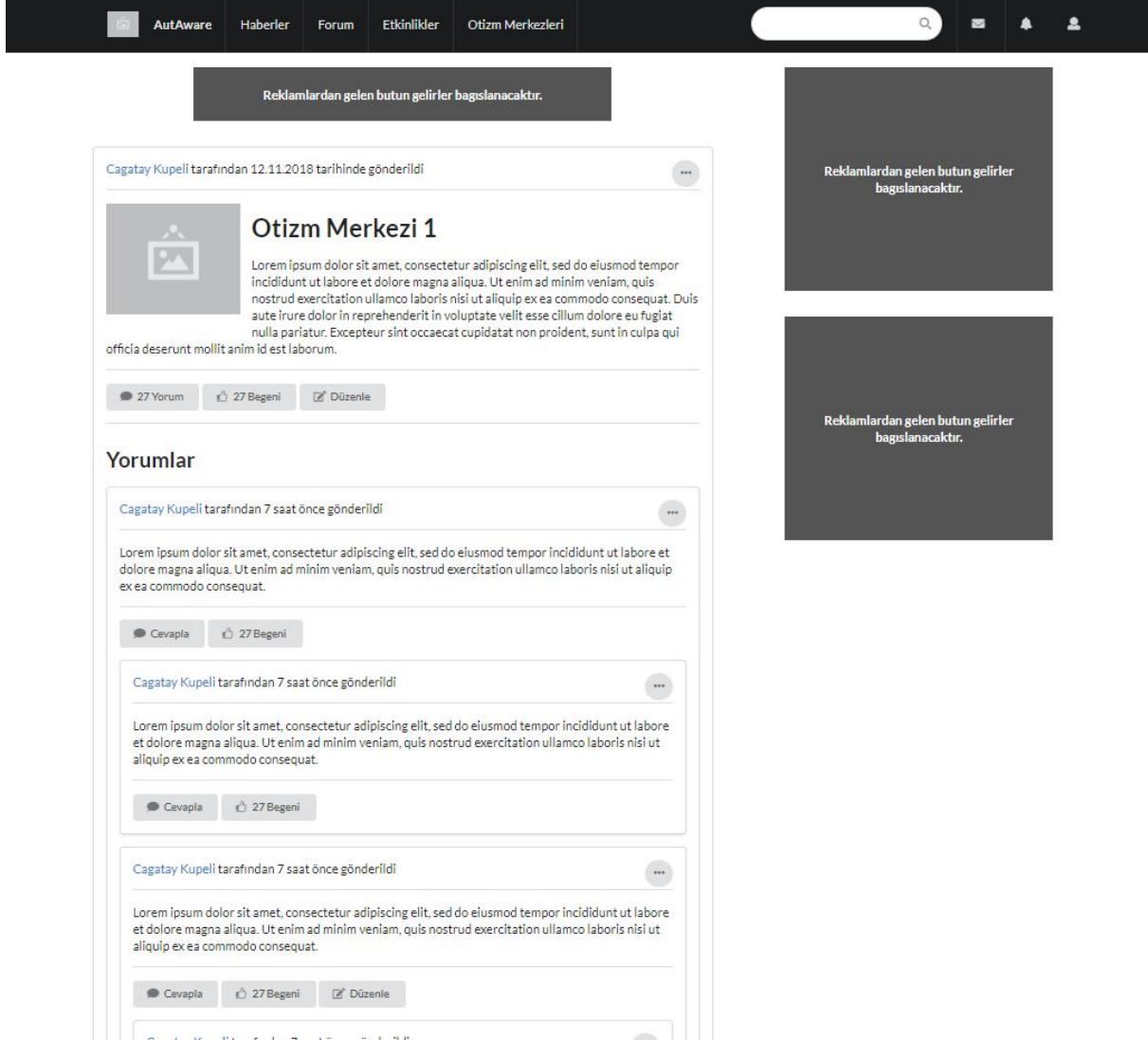


Figure 35: Specific Autism Center Mockup

3.5.5.1.22 Profile

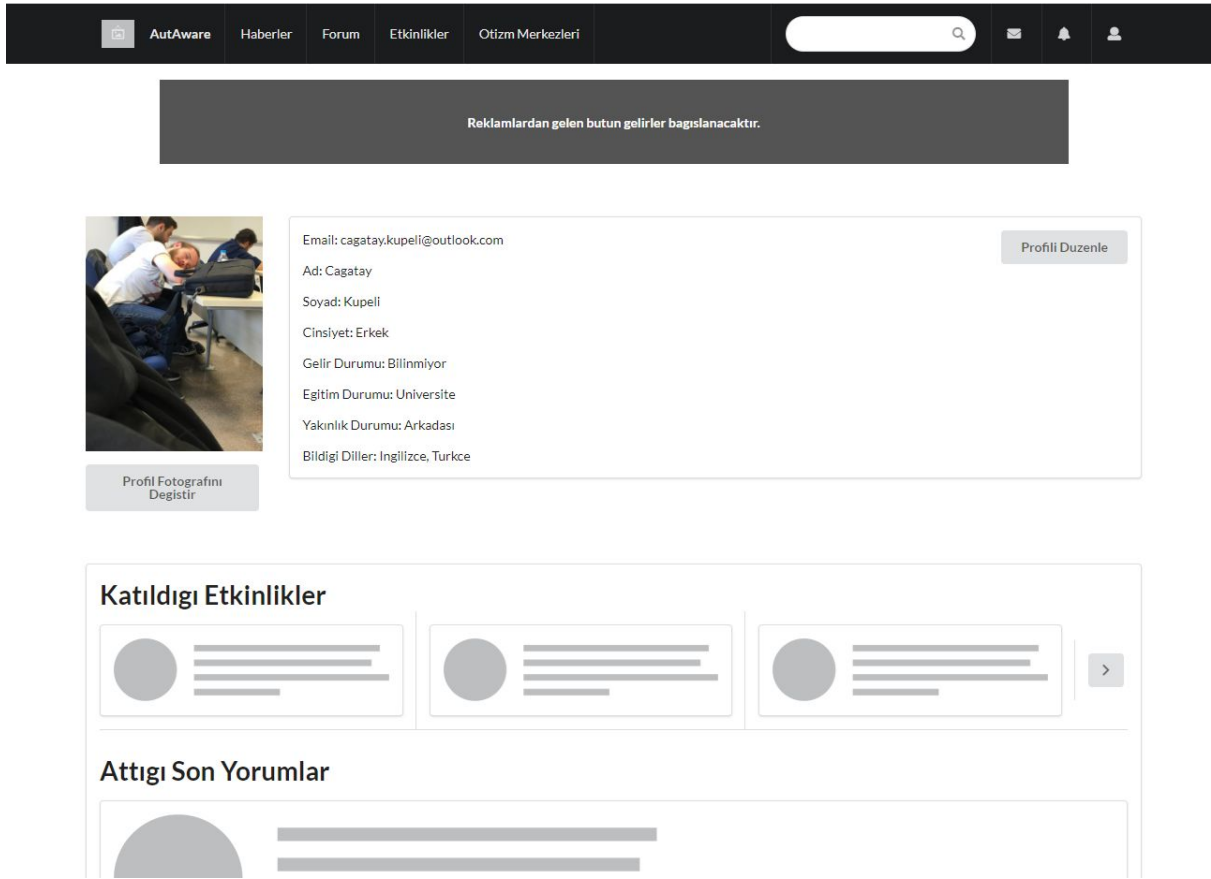



Figure 36: Profile Mockup

Not a final product just a prototype. It requires some improvements.

3.5.5.1.23 Edit Profile

AutAware Haberler Forum Etkinlikler Otizm Merkezleri

Reklamlardan gelen bütün gelirler bağışlanacaktır.



Profil Fotoğrafını Değiştir

Email
cagatay.kupeli@outlook.com

Ad
Cagatay

Soyad
Kupeli

Cinsiyet
Erkek

Gelir Durumu
1000-

Gelir durumumu profilimde göster

Eğitim Durumu
Üniversite

Eğitim durumumu profilimde göster

Bildiginiz Diller
Diller

Kaydet

Figure 37: Edit Profile Mockup

3.5.5.1.2 Android Based Application Mockups

3.5.5.1.2.1 Login Page

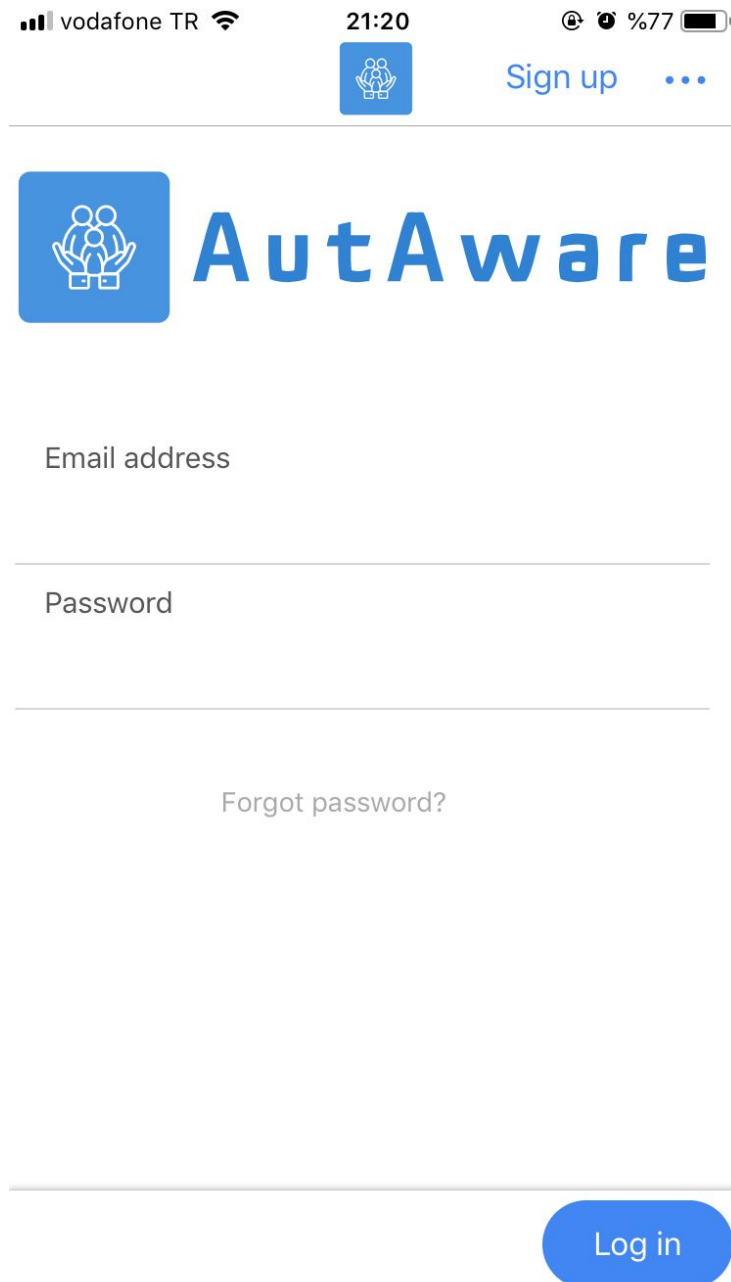
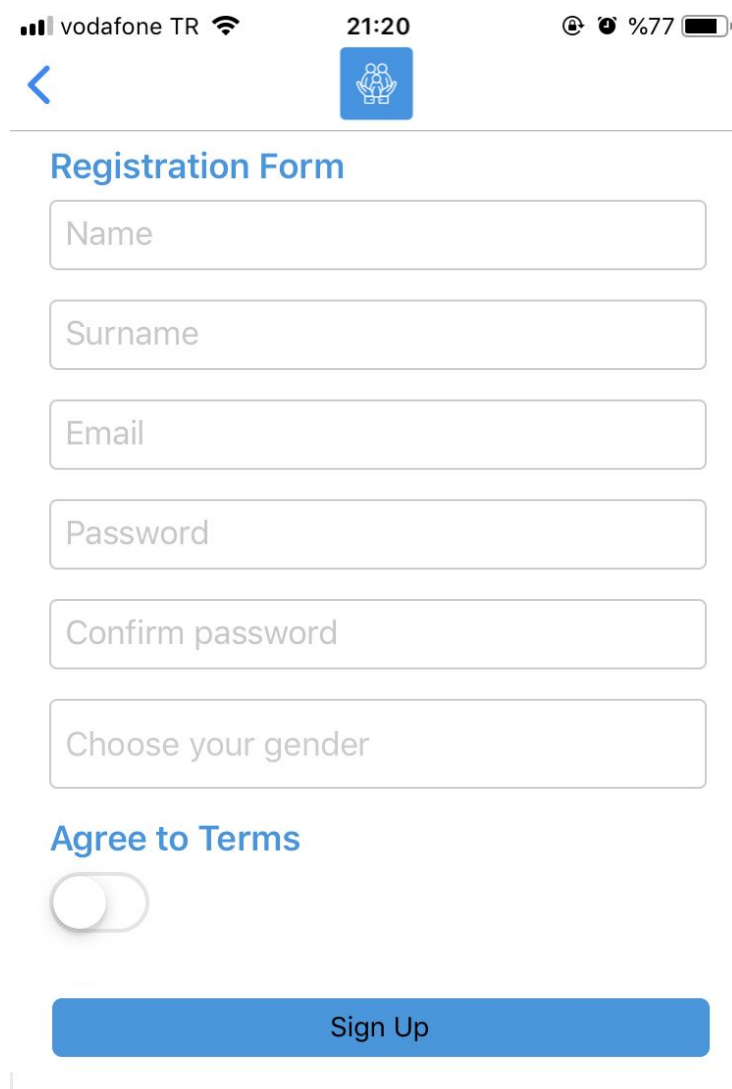


Figure 38: Mobile Login Page Mockup

3.5.5.1.2.2 Register Page



The image shows a mobile application registration page. At the top, the status bar displays 'vodafone TR', the time '21:20', and a battery level of 77%. Below the status bar is a navigation bar with a blue back arrow on the left and a blue icon of two people on the right. The main content area is titled 'Registration Form' in blue. It contains six input fields: 'Name', 'Surname', 'Email', 'Password', 'Confirm password', and 'Choose your gender'. Below the input fields is a section titled 'Agree to Terms' with a toggle switch that is currently turned off. At the bottom of the form is a blue button labeled 'Sign Up'.

Figure 39: Mobile Register Page Mockup



Registration Form

Erdem

Adaçal

erdemadacal@gmail.com

●●●●●●●●●●

●●●●●●●●●●

Male

Agree to Terms



Sign Up

Figure 40: Mobile Registration Example

3.5.5.1.2.2 Forum

📶 vodafone TR 📶 21:56 📶 🔋 %69

  Forum 

 **Erdem Adaçal**
AutAware Team

Otizm, üç yaşından önce başlayan ve ömür boyu süren, sosyal etkileşime ve iletişime zarar veren, sınırlı ve tekrarlanan davranışlara yol açan beynin gelişimini engelleyen bir rahatsızlıktır.

 379  29 

 **Arnesh Marar** Report
Otizm Hakkında Bilinmeyenler

Otizm vakalarının sayısı 1980'lerden beri oldukça fazla oranda artmıştır. Bunun nedeni kısmen tanı koyma yöntemlerindeki değişikliklerdir...daha fazla

 0  20 

 **Arnesh Marar** Report
Otizm Nedir?

Otizm, üç yaşından önce başlayan ve ömür boyu süren, sosyal etkileşime ve iletişime zarar veren, sınırlı ve tekrarlanan

Figure 41: Mobile Forum Mockup

3.5.5.1.2.2 Submit Post

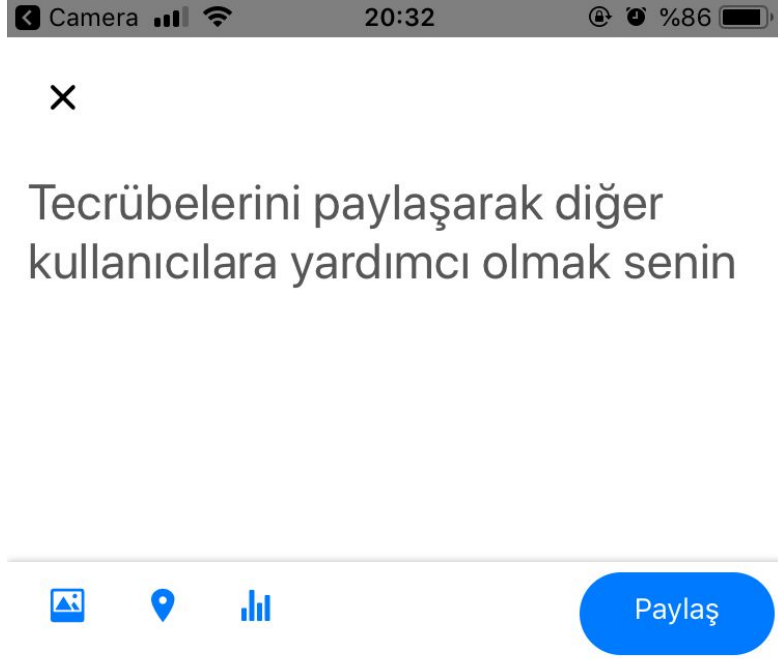


Figure 40: Submit Post Example #1

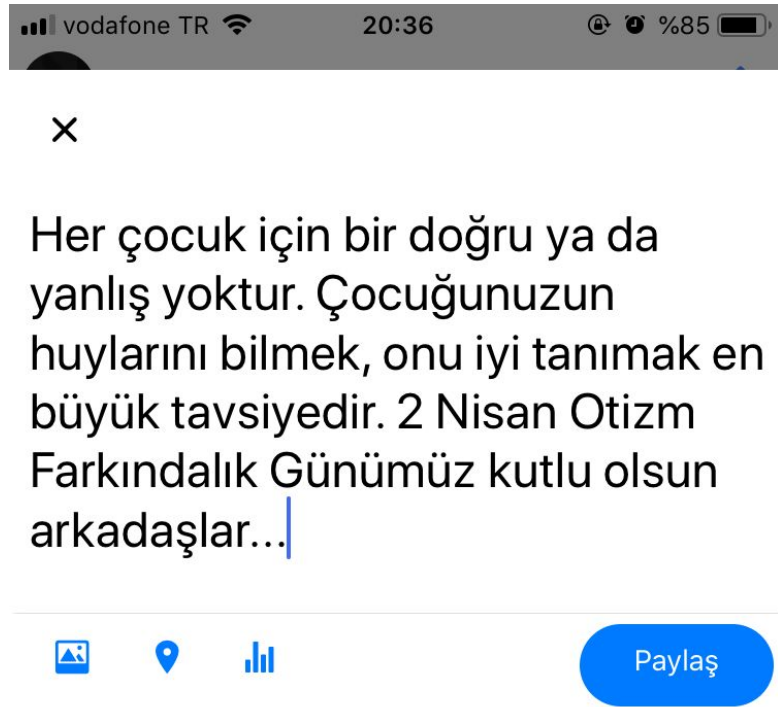


Figure 42: Submit Post Example #2

3.5.5.1.2.2 News Page

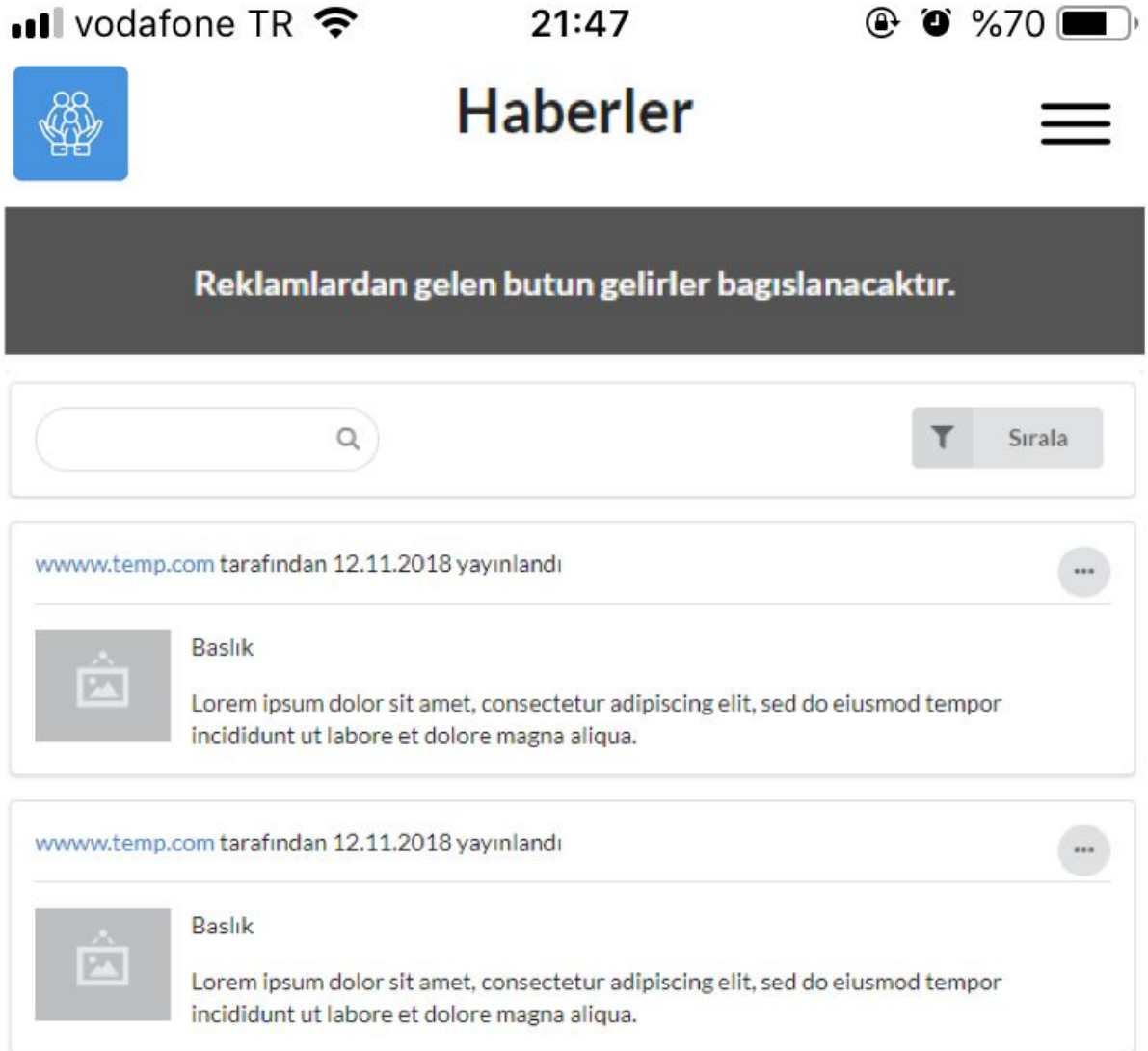


Figure 43: Mobile News Page Mockup

3.5.5.1.2.2 Navigation Bar



Figure 44: Navigation Bar Mockup

3.5.5.1.2.2 Autism Centers

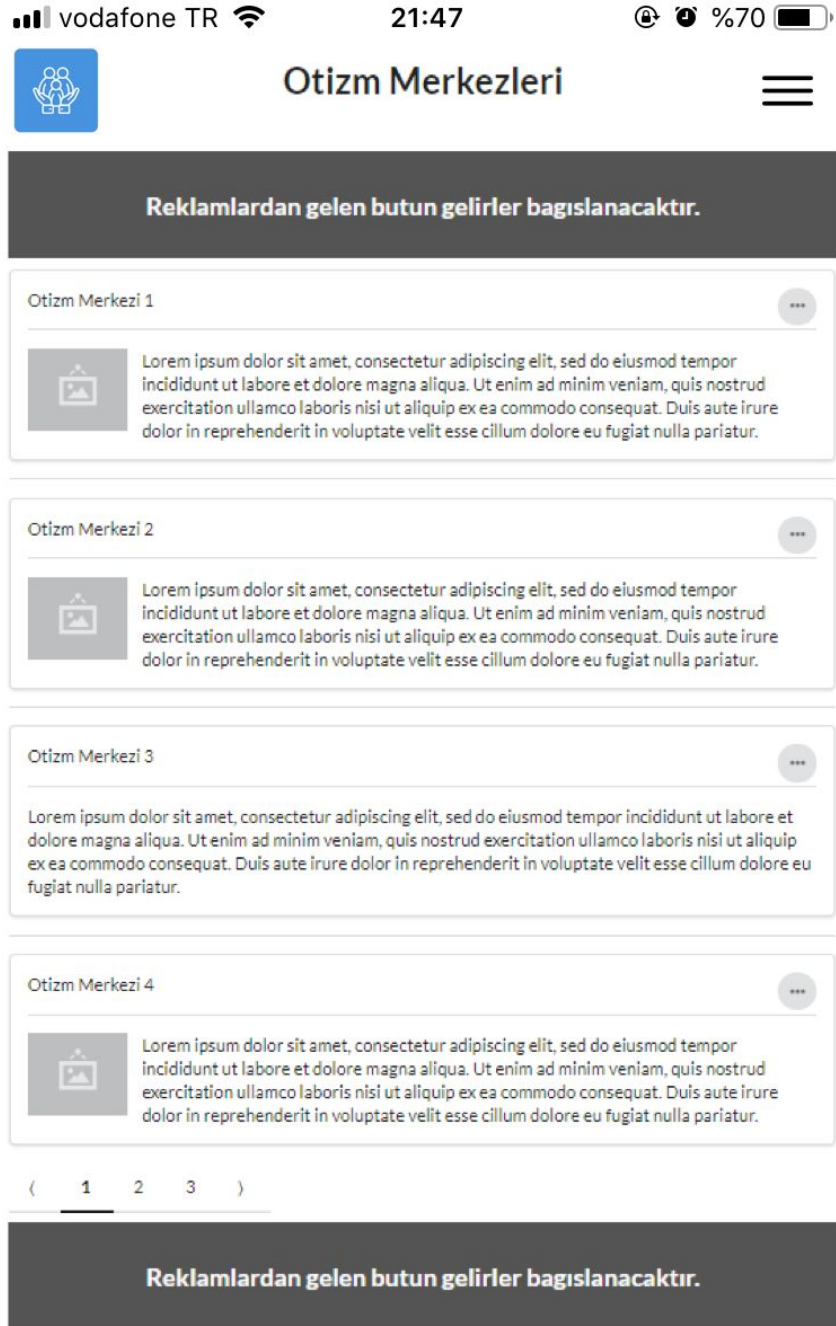


Figure 45: Mobile Autism Centers Mockup

3.5.5.1.2.2 Event Listing

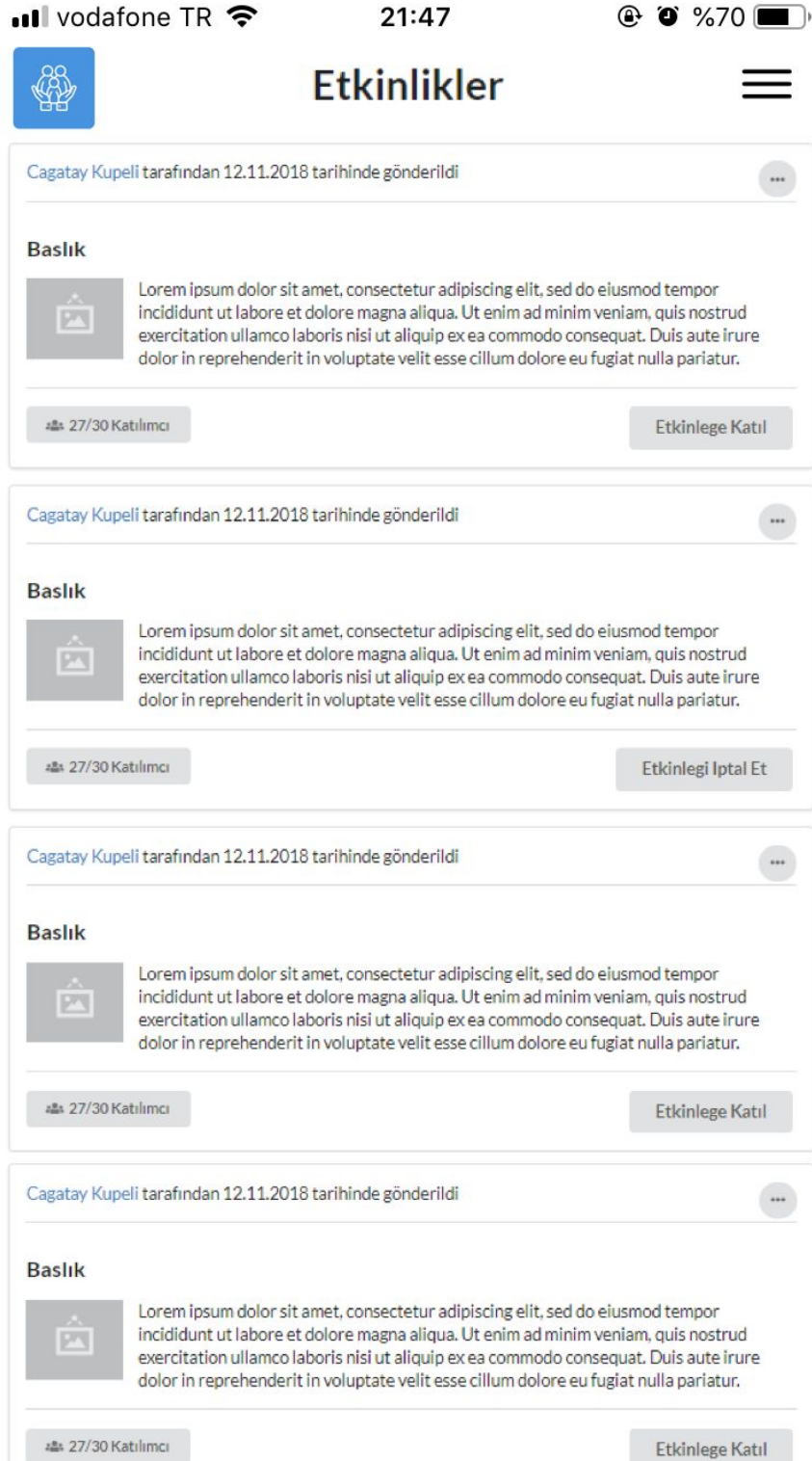


Figure 46: Mobile Event Listing Mockup

3.5.5.1.2.2 Specific Autism Center

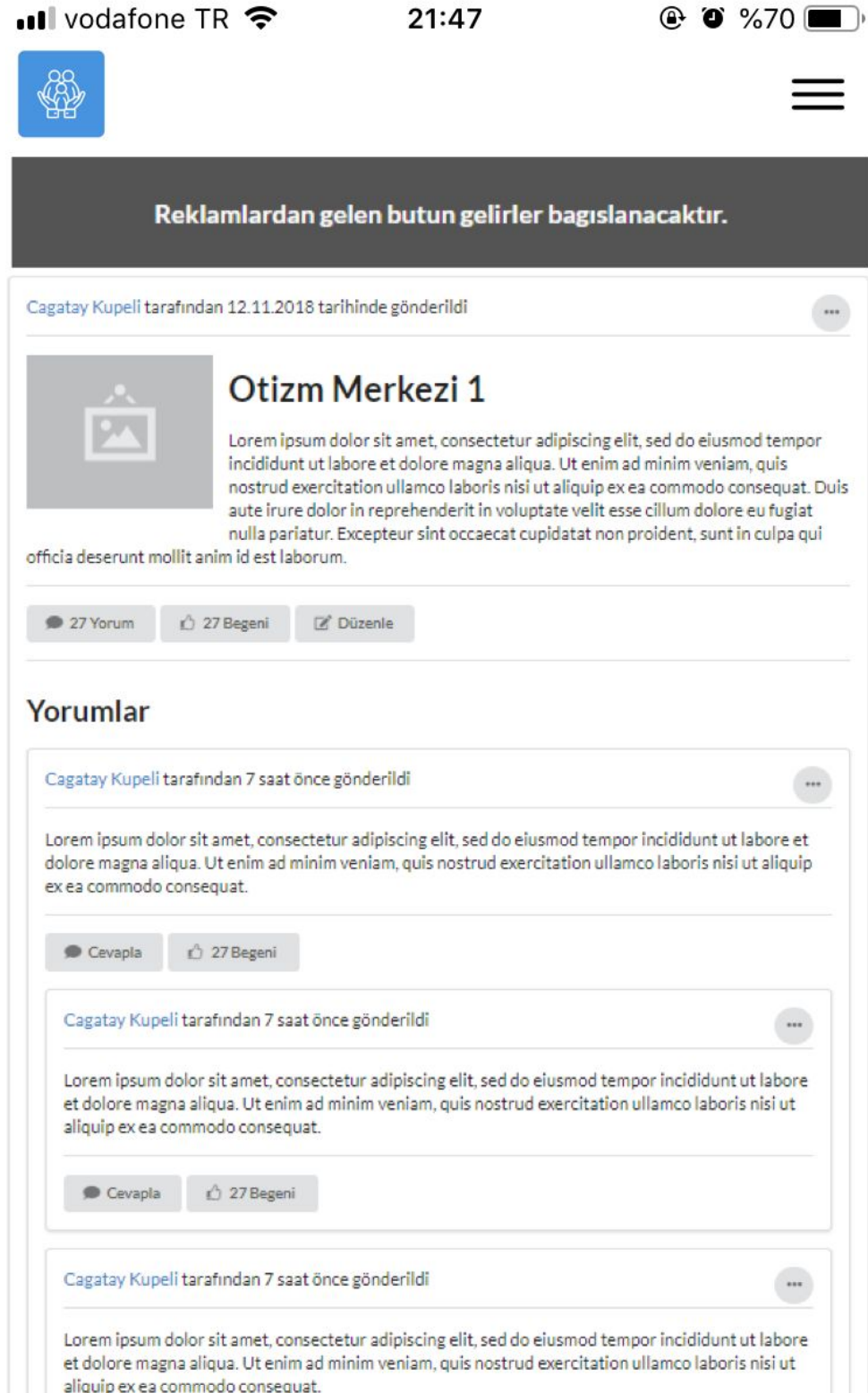


Figure 47: Specific Autism Center Mockup

3.5.5.1.2.2 Profile

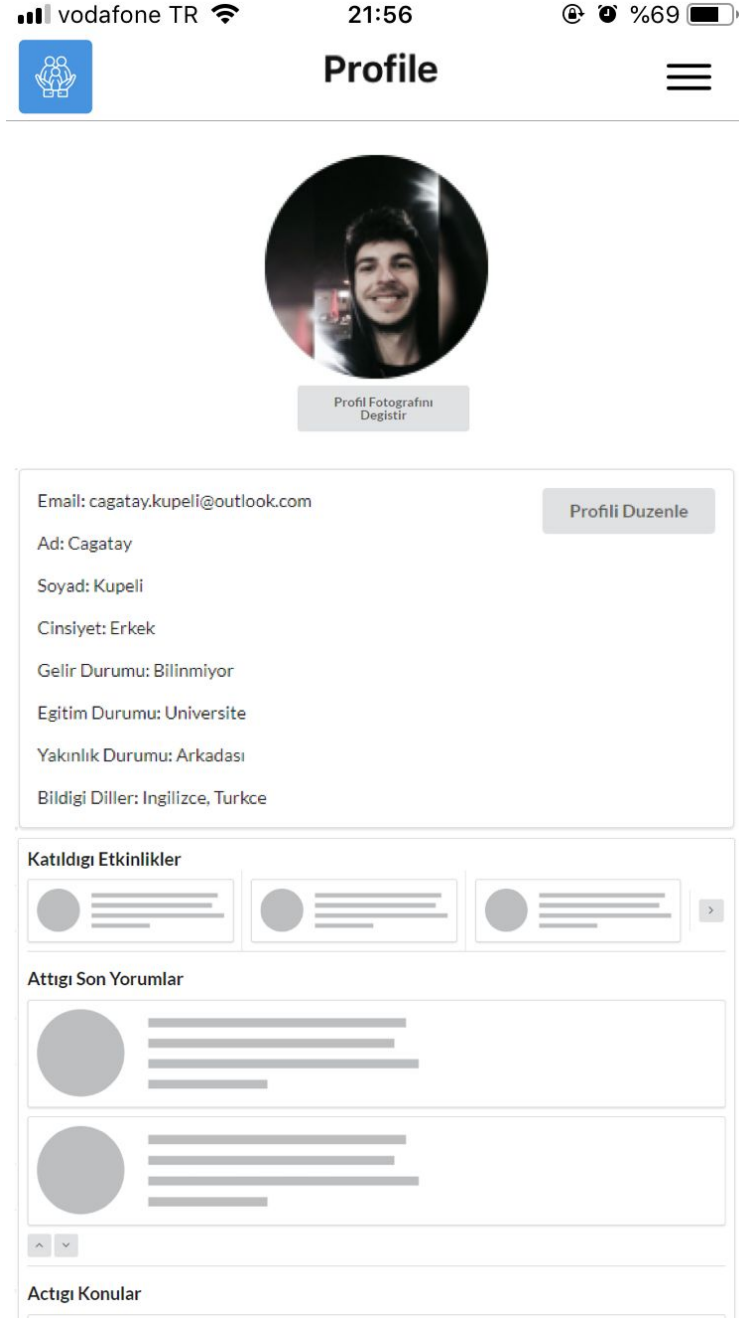



Figure 48: Mobile Profile Mockup

3.5.5.1.2.2 Edit Profile

Mobile Edit Profile Mockup

Mobile status bar: Vodafone TR, 21:56, %69 battery.

Navigation bar: Home icon, Edit Profile, Menu icon.

Profile Photo: 
Profil Fotoğrafını Değiştir

Email
cagatay.kupeli@outlook.com

Ad
Cagatay

Soyad
Kupeli

Cinsiyet
Erkek

Gelir Durumu
1000-
 Gelir durumumu profilimde göster

Eğitim Durumu
Universite
 Eğitim durumumu profilimde göster

Bildiginiz Diller
Diller

Kaydet

Figure 49: Mobile Edit Profile Mockup

References

- [1] Understanding Autism.
<https://www.webmd.com/brain/autism/understanding-autism-basics#3>
[Accessed 13.10.2018]
- [2] Otizmlı Çocuęa Sahip Ebeveynlerin Otizm Tanılama Sürecinde ve Tanı Sonrasında Yaşadıkları Deneyimlerine İlişkin Görüşlerinin İncelenmesi.
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