



CSE 3105/CSE 3137

OBJECT ORIENTED ANALYSIS AND DESIGN

FALL 2020

COURSE PROJECT: *MEDIA BROWSER APPLICATION*

Requirements Analysis Document

Group 27

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1 Introduction

The name of our application is M&E. Although the main purpose of this application is to view video / audio / images, in addition to this feature, we are creating in-app activities and interacting between users (following, getting likes, messaging). For this purpose, although we are in our homes due to covid-19, we have tried to socialize people with such events (e.g.,online concerts, live broadcasts, competitions).

2 Current System

While making this application, we decided to make such an application, inspired by the missing aspects of various platforms such as instagram, icloud, spotify and youtube. For example; Simultaneous performance of some activities is not supported in all of these applications. (The two friends cannot listen to the same song simultaneously.)

To give another example; Most of these platforms do not organize an online event. Finally, other apps except Instagram do not prioritize account privacy.

3 Proposed System

(1) The feature that distinguishes the system we propose from other systems is that it can create events. For example, an artist can hold an online concert, a producer can hold an online script contest, or a teacher can lecture live.

(2) In addition, two or more people can simultaneously view media in our system.

(3) People will be able to stay in touch with the messaging feature that is not available in most media browsers.

(4) Finally, we aim to solve the problems of our users as soon as possible by adding a live support line to our system (via messaging), even if we see it on a few platforms.

3.1 Overview

The purpose of this system is to provide features such as organizing online events, viewing common media, creating and sharing playlists that other media browsers do not provide to the user.

3.2 Functional Requirements

- Users can be friend, or follow each other.
- Users, who are friends, are able to send message.
- Users can join and create event.
- Users upload and download media content also they can sell them.
- Users can search media content .
- Users can view media content individually or with her/his friends.
- Users can share post in her/his profiles to followers.
- Users can live chat in event while viewing media content.
- Users can invite own friends to event.
- Users can reach Live Supporter.
- Users can create and line up own libraries.
- Users can tag some words below their media content.
- Users can cancel her/his event.

3.3 Nonfunctional Requirements

Performance

- Live Supporter should be able to respond to messages within 1 minute.
- System must pay back to the Participants Of Event within 24 hours.
- Users can reach Live Supporter all day long.

Usability

- Event Producer can cancel the Event up to one day before theEvent.
- Users can search media content with details.

Supportability

- At least 50.000 participants can join the event.
- Users can listen audio file offline.

Reliability

- Users are able to change their account' s as private account.

3.4 System Models

3.4.1 Scenarios

Scenario name: shortMovieCompetition

Participating

Actor instances: Sarp, Pinhani: ContentProducer

Vision, Ali: EventOrganizator

Juries, Ali, Ayşegül: Participant

Flow of events:

1. When Sarp logged in Events, he saw that it was organizing an international short film competition in the announcement shared by Vision, which he had previously followed on his homepage. Sarp decided to participate in the competition with his team under the name of Kavak Yelleri.

2. His team registered in the Events and created own profiles.

3. The movie named Şekerportakalı can only be viewed by the judges determined by Vision until the day of the competition, and stated the type of content (short film, drama), after adding a short description (subject), its trailer, by tagging the cast of the film (actors, scriptwriter, director, music list etc.) Uploaded it on sale at an affordable price.

4. Vision has created a private event that only pre-determined juries will participate for the qualifiers. The participating juries rated the films they watched simultaneously (from the chat panel).

5. Vision's host, John, has set up a free public live broadcast event where he will announce the winning movie. After his opening speech, he announced what the winning movie was, Şekerportakalı.

6. Ali, one of the many users who watched the live broadcast, bought the movie and watched it simultaneously on Events with Ayşegül, with whom they were friends.

7. Ayşegül, who liked the soundtrack of the movie, saw that the music was prepared by the Pinhani group in the explanation part of the film, and bought her albums and added them to her library to listen to them again.

8. Ayşegül added and edited the music of the album she bought to the playlist she had previously prepared.

9. Ayşegül searched Pinhani to see the group's posts.

10. In the photos shared by the group, she saw the photos of her past concerts.

11. She followed Pinhani to see the upcoming concert announcements.

Scenario name communicateWithLiveSupporterForTicket

Participating Ömer : Participant Carla : Participant

actor instances Erem: Supporter

Flow of events

1. One day, Ömer wakes up with a call from his lover, Carla, who tells him that their favorite band, Gentleman, has a concert on the weekend on the M&E application.
2. Omer is happy with the news and tells her to buy tickets immediately. They enter the application with Carl and get their tickets.
3. On the day of the concert, two lovers enter the application half an hour early and enter their ticket codes into the system. Although Carla was able to enter the concert, Ömer could not enter the concert.
4. Annoyed by this situation, Ömer sends a message to the live support line of the application and explains the situation.
5. Erem, who is on the live support line, asks Ömer for the information and receipt of the ticket.
6. After Ömer has sent the receipt, Erem tells that there is a systematic malfunction and that she will allocate the ticket to Ömer's Account after taking the necessary actions. Omer thanked her gladly.
7. The system sends an apology message to Ömer with a notification stating that the ticket has been loaded.
8. Omer gets seamless access to the concert with his lover, Carla.

Scenario name EzhelCancelConcert

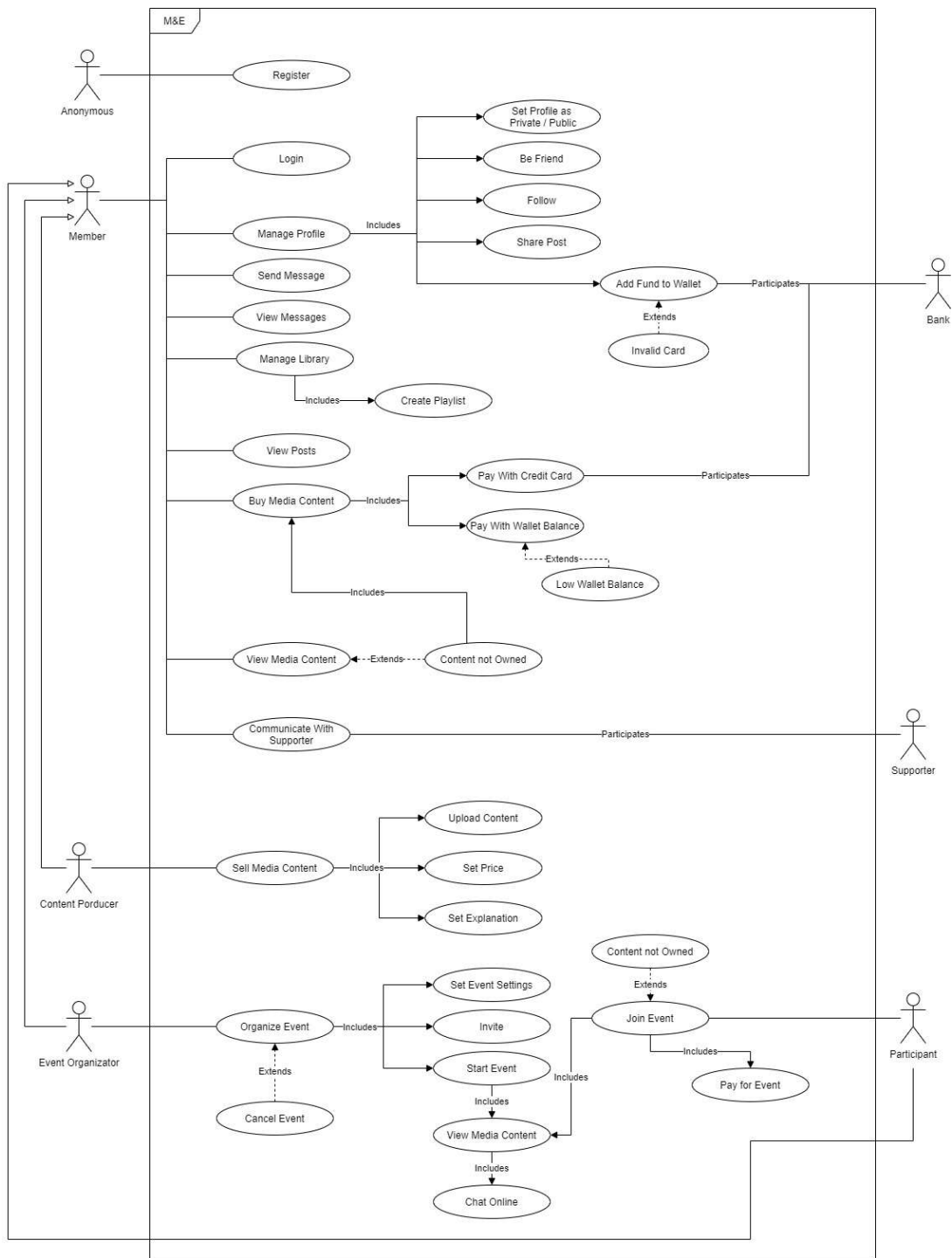
Participating Ezhel:EventOrganizator

actor instances Users:Participants

Flow of events

1. Ezhel announces that he will hold a paid online concert from his profile in the M&E application last week
2. But the concert is canceled because his mother is caught in the corona. He logs into his profile in M&E and cancels the online concert.
3. Ezhel takes a message that asking are you sure you want to cancel sent by the M&E and confirms that.
4. After that he takes an apology video and releases it from his account.
5. Ezhel receives the notification by the system that the fees of users who paid for concert are distributed back by the M&E.

3.4.2 Use Case Model



Use Case Name: OrganizeEvent

Participating Actors: Initiated by EventOrganizator

Communicates with Participant

Flow of events:

1. The EventOrganizator creates an Event
2. System request Event details (private or public, price, which media).
3. EventOrganizator sets Event details.
 4. System creates a Room.
5. EventOrganizator invites Participant(s) (The EventOrganizator and Participant must be friends on EVENT) (include use case beFriend).
6. System sends to Participants an invitation.
7. Participant accepts invitation, if event paid, Participant should pay or he/she does not have the Media Content, should get it. (include use case BuyContent).
8. System adds Participant to the room.
9. EventOrganizator starts the Media Content (include use case viewMediaContent).
10. The selected Media Content plays in the Room for every Participant simultaneously.
11. Participant sends message in chat panel (include use case chatOnline).
12. System enables communication between Participants.

Entry Condition: - The EventOrganizator calls creating Event function.

Exit Condition: -EventOrganizator and Participants viewed the Media Content simultaneously and chatted while its playing.

Quality Requirements: -At least 50.000 Participants can join the Event.

Exceptions

3. EventOrganizator sets Event details. [contentNotOwned]

7. Participant accepts invitation. [notEnoughMoney] [contentNotOwned]

[notEnoughMoney] The EVENT announces the failure and offer to load money to own wallet. If Participant reject it EVENT cancels the invitation, else the Participant pays for loading money to Wallet, pay the fee and joins the Room.

[contentNotOwned] If the content should be paid to view, EVENT offers to buy the content. If Participant buys it, joins to the Room else, EVENT cancels the invitation.

Use case name CommunicateWithLiveSupporter

Participating actors Initiated by Participant
Communicate with Supporter

Flow of events

1-Participant encounters a problem and reports this to M&E.

2-Supporter contacts Participant to resolve the situation and asks for event information and invoice.

3-Participant sends the event information and invoice to the Supporter.

4-Supporter checks the accuracy of the information, solves the problem and provides feedback that the problem has been resolved.

5-Participation accesses the event without any problems.

Entry condition Participants must encounter a problem.

Exit condition Support should solve the error in the system and provide Feedback.

Quality requirements Supporters should be able to respond to messages within 1minute .

Use case name CancelEvent

Participating actors Initiated by EventOrganizator
feedback to Participants

Flow of events

1-EventOrganizator cancels the Event created with OrganizeEvent with the cancel function.

2-M&E sends a notification for confirming to the EventOrganizator.

3- EventOrganizator confirms the notification by using confirming function.

4-M&E distributes the fees back to the M&E Accounts of Participants and sends the feedbacks to the EventOrganizator and Participants.

Entry condition EventOrganizator must use the cancel function for the Event created with OrganizeEvent.

Exit condition System must distribute money to the Participants Accounts and Event is canceled.

Quality

Requirements -System must pay back to the Participants within 24 hours.
- EventOrganizator can cancel the Event up to one day before the Event.

3.4.3 Object Model

<Object model section documents in detail all the objects we identified, their attributes, and, operations. As each object is described with textual definitions, relationships among objects are illustrated with class diagrams.>

Step 5 activity

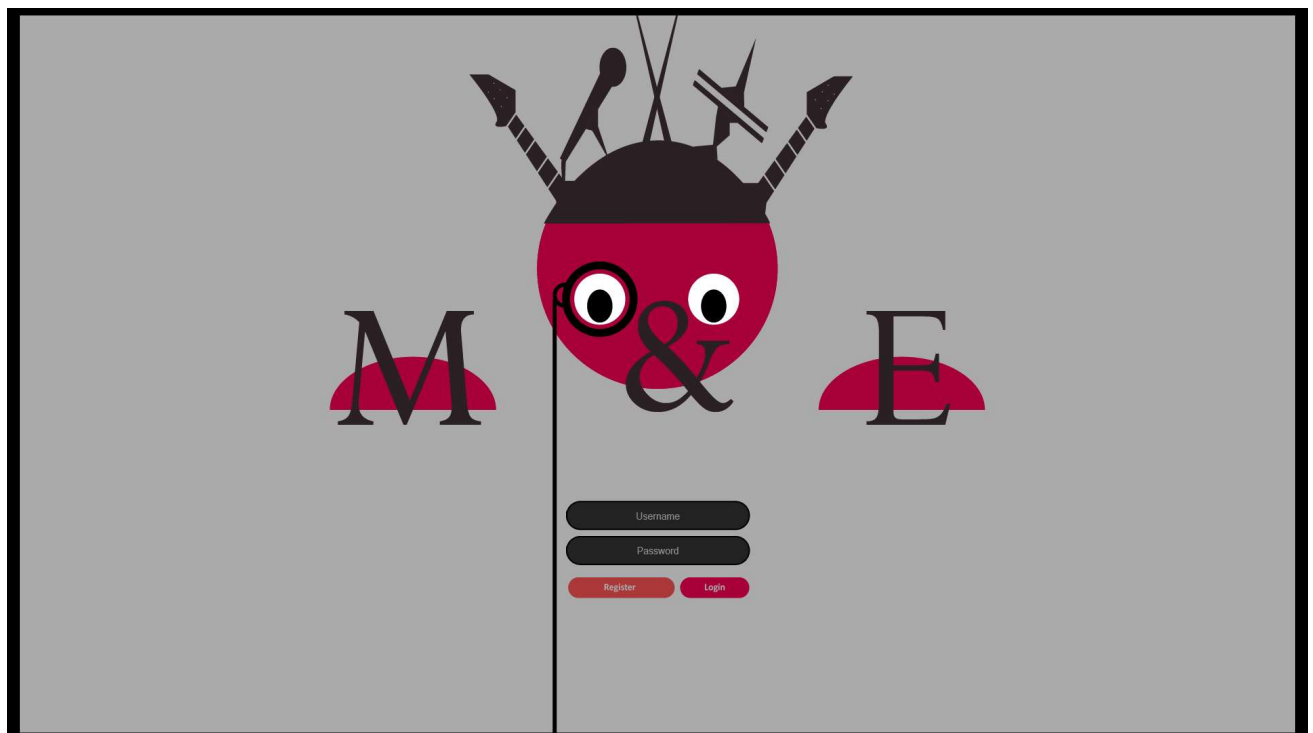
3.4.4 Dynamic Models

<Dynamic models section documents the behavior of the object model in terms of state machine diagrams and sequence diagrams. Although this information is redundant with the use case model, dynamic models enable us to represent more precisely complex behaviors, including use cases involving many actors.>

Step 5 activity

3.4.5 User Interface Mock-ups

- You can login and register.



- This page is our home page. We can access the most up-to-date shares here.

Follows & Friends

Ezhel 4h
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus tempus purus ac tincidunt bibendum. Donec a diam eleifend, facilisis ante nec, ullamcorper orci. Donec varius non tortor eget fermentum. Curabitur non dui nunc.

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Ezhel 4h
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New Video Contents

Ezhel 4h
Starting HTML & CSS From scratch
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus tempus... [Read More](#)

Ezhel 4h
Starting HTML & CSS From scratch
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus tempus... [Read More](#)

Ezhel 4h
Starting HTML & CSS From scratch
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus tempus... [Read More](#)

New Musics

Ezhel 4h
Ezhel 4h
Ezhel 4h

Friends Activities

Ali Ata Bak
Watch Şeker Portakalı with Ayşe Atıcı
[Sarp](#)

Ali Ata Bak
Watch Şeker Portakalı with Ayşe Atıcı
[Sarp](#)

Ali Ata Bak
Watch Şeker Portakalı with Ayşe Atıcı
[Sarp](#)

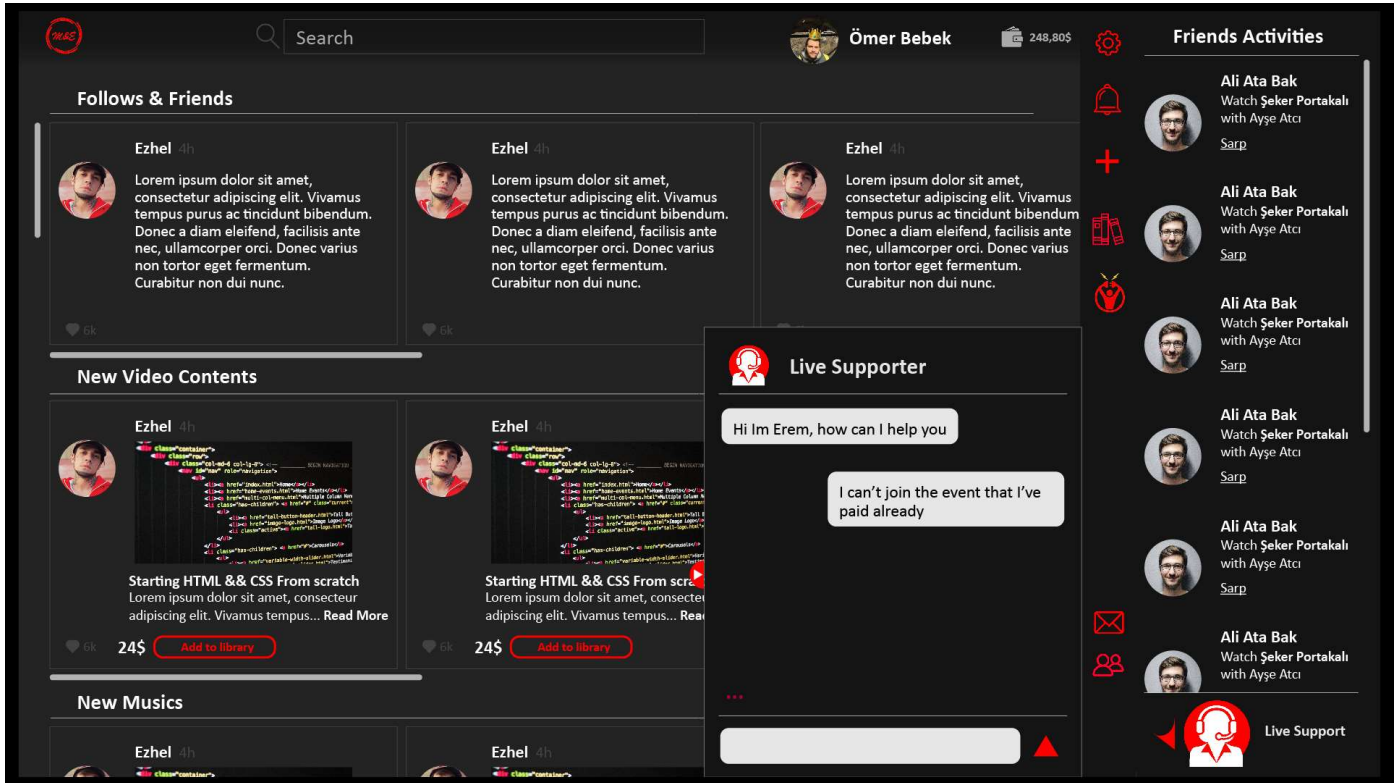
Ali Ata Bak
Watch Şeker Portakalı with Ayşe Atıcı
[Sarp](#)

Ali Ata Bak
Watch Şeker Portakalı with Ayşe Atıcı
[Sarp](#)

Ali Ata Bak
Watch Şeker Portakalı with Ayşe Atıcı
[Sarp](#)

Live Support

- There is an example of communicate with the live support, you can also chat with your friends in same way.



- You can create your event with details.

The screenshot shows a 'Create Your Event' form in a dark-themed application. The form is organized into two columns. The left column contains fields for 'Name', 'Preview Image', 'Price', and 'Participant Limit'. The right column contains fields for 'Media Content', 'Event description', 'Date', and 'Privacy'. A 'Create' button is located at the bottom right of the form. The top of the application shows a search bar, a user profile for 'Ömer Bebek' with a balance of 248,80\$, and a sidebar with various icons. The form fields are as follows:

- Name:** A text input field.
- Media Content:** Radio buttons for 'Live Broadcast' (selected) and 'Select From Library'.
- Preview Image:** A placeholder image with a red icon of a person and a plus sign.
- Event description:** A large text area.
- Price:** A text input field followed by a dollar sign (\$), with a checkbox for 'Free'.
- Date:** A date picker with fields for day, month, and year, and a checkbox for 'Start Now'.
- Participant Limit:** A text input field, with a checkbox for 'Unlimited'.
- Privacy:** Radio buttons for 'Public' (selected) and 'Private'.

A red 'Create' button is positioned at the bottom right of the form area.

- You can see your upcoming events, and you can reach that contents which you bought. You can easily cancel your event, and create playlist etc.

The screenshot shows a user interface for a digital library or event platform. At the top, there is a search bar and a user profile for "Ömer Bebek" with a balance of 248,80\$. The main section is titled "Library" and features a "Your Upcoming Events" section. This section displays an event titled "Online unity course" by Ömer Bebek, scheduled for 22.12.2022, with 22k attendees. The event description mentions learning basic principles on Unity. Below this, there is a section for "Upcoming Events" featuring three other events: "Geceler Geceler" by Ezhel on 01.01.2023, "Yapay Zeka" by Şadi Evren Şeker on 04.01.2023, and "Haftalık Yayın #26" by Elraen. Each event card includes a thumbnail image, the event title, the host's name, the date, and a "Read More" link. The interface also includes a sidebar with various icons for navigation and a bottom navigation bar.

Search

Ömer Bebek 248,80\$

Library

Your Upcoming Events

Ömer Bebek 22.12.2022

[Change date](#)

[Cancel Event](#)

Online unity course

We are going to learn basic principles on Unity... [Read More](#)

22k

Upcoming Events

Ezhel 01.01.2023

[Quit Event](#)

[Remind me](#)

Geceler Geceler

Yeri gelecek şarkı söyleyeceğiz, yeri gelecek sohbet edeceğiz... [Read More](#)

3m

Şadi Evren Şeker 04.01.2023

[Quit Event](#)

[Remind me](#)

Yapay Zeka

Yapay Sinir Ağları ve Python... [Read More](#)

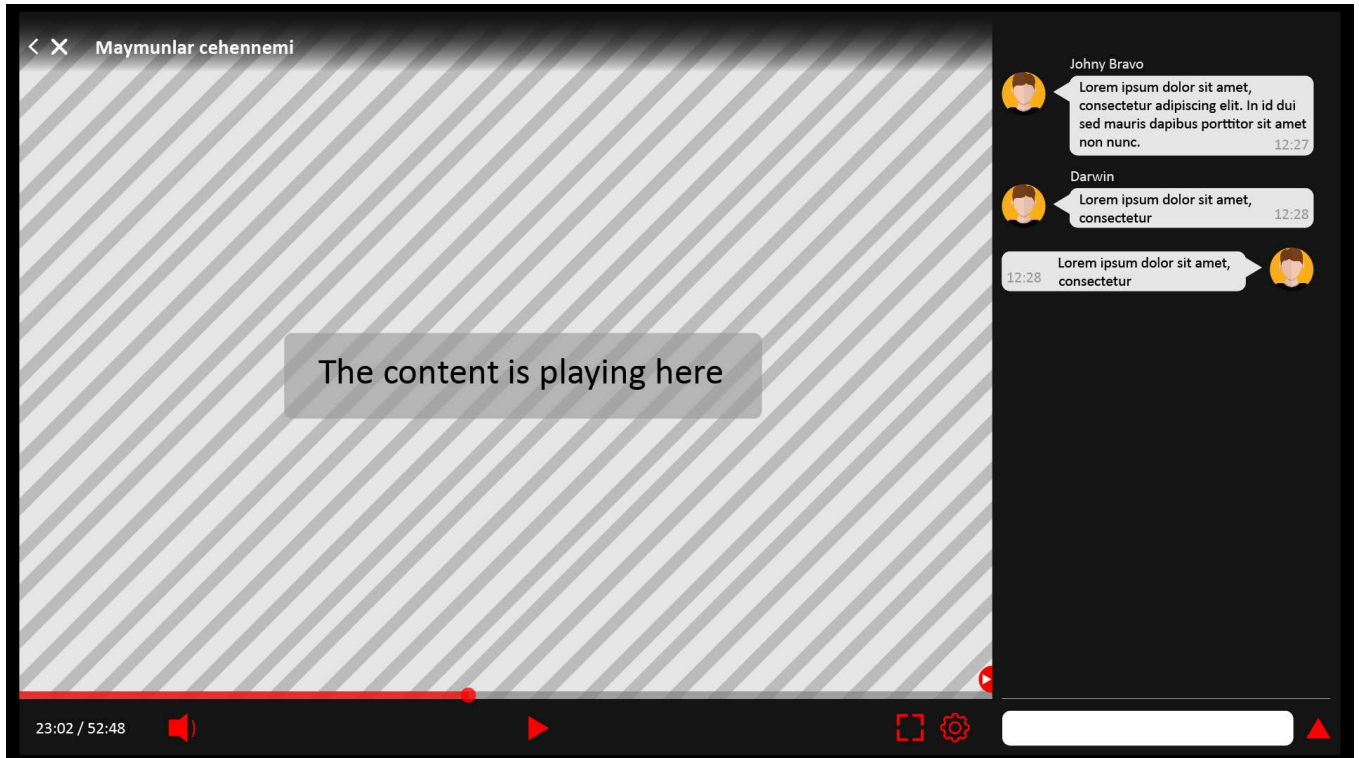
78

Elraen

Haftalık Yayın #26

Gelin bakınız ne yapacağımıza daha patlatırız bi Among Us... [Read More](#)

- You can view any content with your friend in simultaneously. Also you can chat while media content is playing.



4 Glossary

Wallet: The balance users have in the system.

Event: Event is an online gathering, such as online concerts, training sessions, etc., which the users can organize through their own profiles and also attend the audience.

EventOrganizator: The person who starts or organizes the Event.

Room: The environment in which people attending the event can watch the broadcast and chat.

Media Content: Various audio, video, image formats.

Account: Account is the profile that each user creates by entering their information about themselves when they log into the M&E.

Supporter: The person in the support line that users can reach by message in case they encounter any problems while using M&E.

Participant: Every audience participating in the Event created by a EventOrganizator.

Member: Every user who creates a profile on M&E.