

# **SWEN 303**

## **Assignment 2**

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# Introduction

## Description

Being able to show future students practical and real world examples of various subjects will help the students with deciding their future study. AREntertain is a University run program for current and future students, showing them how virtual/augmented reality works and what it is being used for in the industry. The main focus is to teach highschool and university students thought fun and interactive examples and lectures from industry leaders and professors.

The focus is to create interest in the field of software engineering, as well as teach future leaders and professional workers what they will be working on when they join the industry.

AREntertain is a multi-week program that ends with a big exhibition showcasing interactive industry examples and university projects. Participants will be assigned a group with a staff member who will be their tutor for the program. Participants will be encouraged to collaborate with their group to create a prototype of a program or game that they could give a small presentation at the final meet-up. They can also use the tool to manage and view your interests and timetable of all the lectures and events, and ask questions to the organizers and lecturers. The program is run co-run with the organizers of Summer of Tech.

## Business Objectives

Some students have trouble deciding what to study and giving them practical examples and lectures will help them decide if software engineering is what they want to study. The university should cater to these students by making this process as simple as possible.

AREntertain objectives is to educate and inspire future engineers. Inspiring them with university projects worked on by students during summer scholarships, and possibilities of working summer internships in the industry with the partnership with Summer of Tech. The tool should be easy and simple to use, as is to help make participation in the program easier and connecting like minded students. The tool should also be as efficient as possible for lecturers and tutors so more time can be spent teaching material to students.

## Importance to Stakeholders

AREntertain will be a vital program for inspiring future engineers. It will give students the understanding of where the industry is at the moment and where it is heading, and giving them the support they need to see if they are interested in studying software engineering. Having support from the industry leaders in VR/AR in New Zealand and Summer of Tech, AREntertain will help create the necessary engagement of interest.

## Model Overview

Using a few interviews I did with my friends and classmates I created the first version of my use-cases. Using a more free flowing interviews format, I was able to have a back and forth discussion about AREntertain and if they would participate, and what they would like to change to the proposed idea. Using my own ideas and the ideas of the interviews, I role played how the task would naturally play-out, in a User and System environment. That helped create the base of the system.

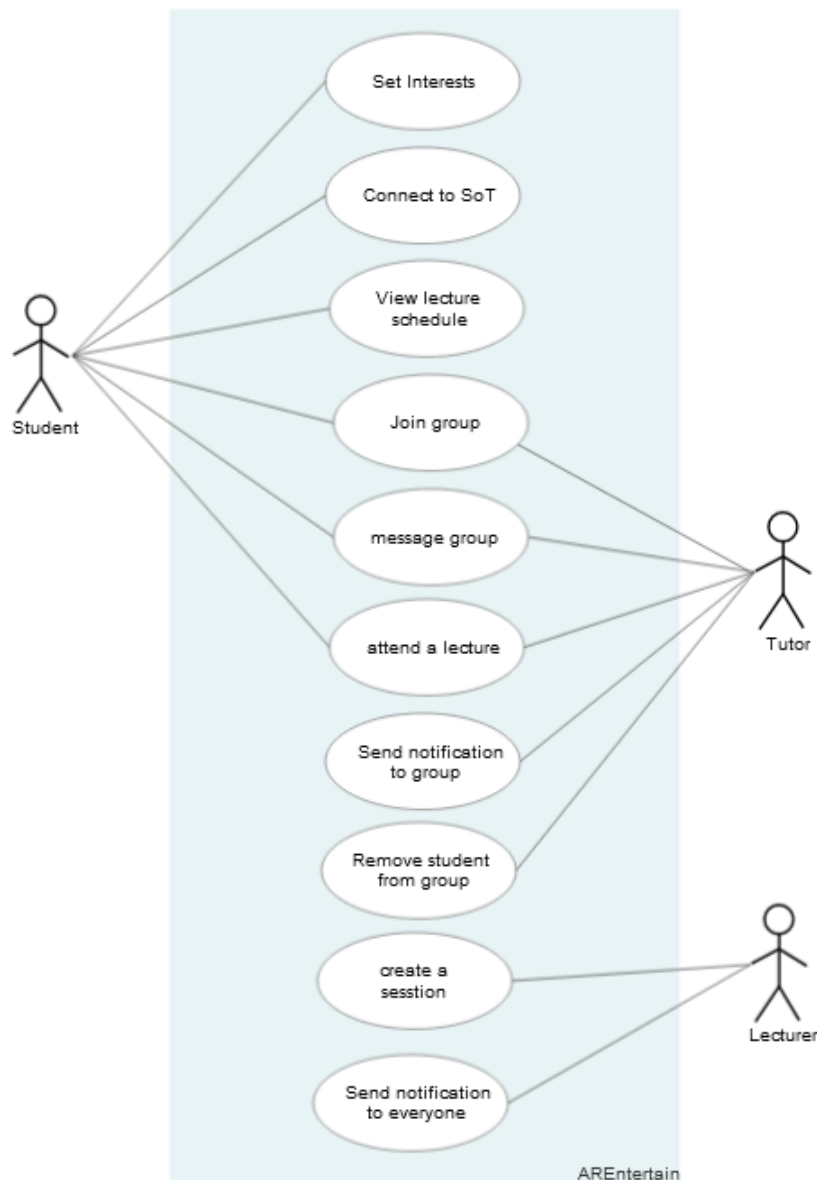
There are three main roles in the system; Students, Tutors and Lecturers. For my personas I wanted to spread it and make a student and a tutor, as I could not interview a lecturer. For the student I interviewed a high school student, and for a tutor I interviewed a fellow

university student who is a tutor for some first year students and who has worked on summer projects for the university.

I was able to identify their behavioral variables, such as activities, attitudes, aptitudes and motivations.

When creating my lecturer's persona I based it on my peer's and my own perceptions of them. As the lecturers are not the main focus of my system, I think this is acceptable.

I decided to not create a map, however I was still able to identify significant behavior patterns.



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## Personas

## **Ostoja Pantic**

Ostoja is a 17 Year old High Student, he is in the final year of studying for his secondary education. He is interested in the field of computer science and software engineering, but is not yet sold on the idea. He would love to join like minded people and experience lectures and meetups on the topic of VR/AR. He would listen to lectures he has interest in and expand his knowledge of software engineering before he has to choose his major at the start of university. He wants a environment to learn and grow, as well as meet new people who have the same interests as him

**Activities:** Ostoja is a person who learns most at lectures and when he can have hands-on examples and activities. He spends most of his free time outside playing sports or with friends.

**Attitude:** Ostoja has a hard time focusing on studying when not in the proper environment, as such he prefers to learn as much as he can at lectures and tutorials.

**Aptitude:** Ostoja is a creative thinker and kind of lazy, he uses his existing knowledge to find fast and effective solutions to problems when studying and in life.

**Weaknesses:** Ostoja is lazy, and tends to not leave enough time to finish his assignments.

**Domain knowledge:** Ostoja has never attended any courses not offered by his school.

**System Knowledge:** Ostoja is unfamiliar with the University, however, he is familiar with tech and is capable of understanding new systems.

**Interaction:** Ostoja will listen to lectures he is interested in and try to find a group of students he can spend his free time with talking about the system and everyday life.

**Priorities:** Ostoja wants to know when and where the lectures will take place, as to have time for his other activities.

**Motivations:** With University starting soon, Ostoja wants to figure out what he wants to study, as changing majors or degrees is not something he would like to deal with. Figuring out what he would like to study will give him a better understanding and interest in his future courses.

**Computer self-efficacy:** Ostoja is confident with using technology, he wants to see what can and will be possible in the VR/AR scene.

**Risk Tolerance:** Ostoja has some risk tolerance, if he gets stuck on a problem, his motivation can go down and become easily distracted.

**Information processing:** Ostoja likes to learn as much as he can about the topic he is interested in, however, he has a hard time finding new stuff outside of lectures and tutorials..

**Tinkering:** Ostoja is a thinker, however, he normally stays in the boundary of the system he is using.

## **Nebojsa Djeric**

Nebojsa is a 24 year old domestic student, living at home, and studying at Victoria University of Wellington. He is a studying business and is finishing his masters. He has been a tutor for multiple courses and is experienced with both giving lectures and tutorials. He loves helping fellow students learn and helping them fulfill their academic goals. He wants to inspire the future students with practical examples and examples from the industry.

**Activities:** Nebojsa is a person who learns most at home and alone. However he loves explaining and teaching students. He spends most of his free time studying and playing online games with friends.

**Attitude:** Nebojsa easily focuses on studying when in a proper environment, he focuses a lot of time on tutoring as he had a lot of help from tutors when he was younger. He wants to help others to succeed.

**Aptitude:** Nebojsa is confident in his studies and in his ability to help others.

**Weaknesses:** Nebojsa is apathetic, and tends to get emotional with his students, even at a detriment.

**Domain knowledge:** Nebojsa knows a lot about extra course work and summer projects.

**System Knowledge:** Nebojsa is very familiar with systems like SoT, however, this will be his first time using it in a tutor position.

**Interaction:** Nebojsa has a lot of knowledge of tutoring students, and wants to help new and coming students with learning and understanding of the program. He will check in a few times a day to answer any questions students have.

**Priorities:** Nebojsa wants to help students, even at the detriment to his own study.

**Motivations:** As he is working on a summer project that will be in the scope of the AREntertain system. He wants to show his project to inspire students.

**Computer self-efficacy:** Nebojsa is confident with using technology. He has no problem communicating with others online.

**Risk Tolerance:** Nebojsa has some risk tolerance, if he gets stuck with helping a student, he will prioritize them over his study.

**Information processing:** Nebojsa likes to teach others about what he is doing over the summer, he is good at processing difficult information into something that is easy to understand.

**Tinkering:** Nebojsa does not like tinkering, as he has not much time with his own study and his tutoring.

## Scenarios

**Task 1: Choosing interests, viewing lectures and attending lectures, viewing lectures and attending res; by Ostoja**

User	System
	Display actions
Choose My interests	
	Display all interests
Chooses from his interests	
Saves choices	
Chooses lecture schedule	
	Display all lectures
Chooses filter by "interest"	
	Displays all lectures with given parameters
Chooses lectures to attend	
	Displays availability for courses
Confirms attendance	
	Saves attending lectures to "Personal lecture schedule"

#### Task 2: Attending a session; by Ostoja

User	System
Show up for a lecture	
	Display attendants list
Show ID	
	Checks ID in in attendemts list
	Approves entry
Attends lecture	
Gives feedback	
	Adds feedback, if given

#### Task 3: Create public group; by Nebojsa

User	System
	Display actions
Choose create group	
	Display group creation options
Choose public group	
Add a description of the group	
Add interests tags	
Confirm group	
	Add to database for users to find

#### Task 4: Group messaging; by All

User	System
	Display actions
Choose my groups	
	Display my groups
Select group	
	Display group information
Choose chat	
	Display Chat
Write and send message	
	Send message to group chat

#### Task 5: Create a group for a project; by Nebojsa

User	System
	Display actions
Choose Create Group	
	Display create group options
Select private group	
Add description to group	
Add people to group	
Add Project team roles	
Confirm group	
	Add to database for users to find
	Send out invires to invited users

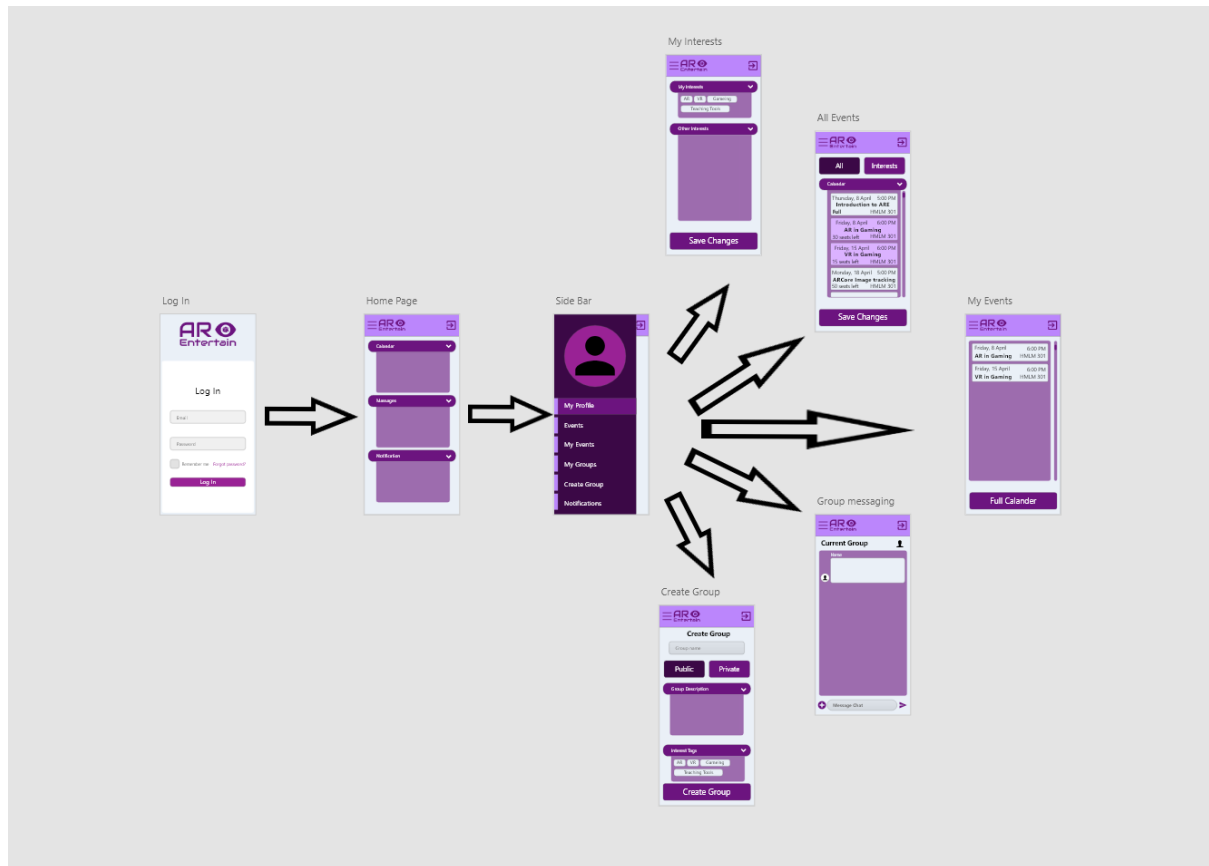
## Design

My design revolves around a simple and clean look using a vibrant color to make it pop. For this part I wanted to focus on the mobile app, as I could focus more on the design of the system. With just focusing on the mobile app, I am trying to make a system with a good design and something that would be familiar and natural for the users.

I was able to follow mobile trends such as a sidebar which gives access to most parts of the system independent of where you currently are. As the system would be only used for short periods of time(looking up event times, checking messages and notifications), I wanted the user to be able to quickly check all the necessary information as quickly as they can.



# Storyboard



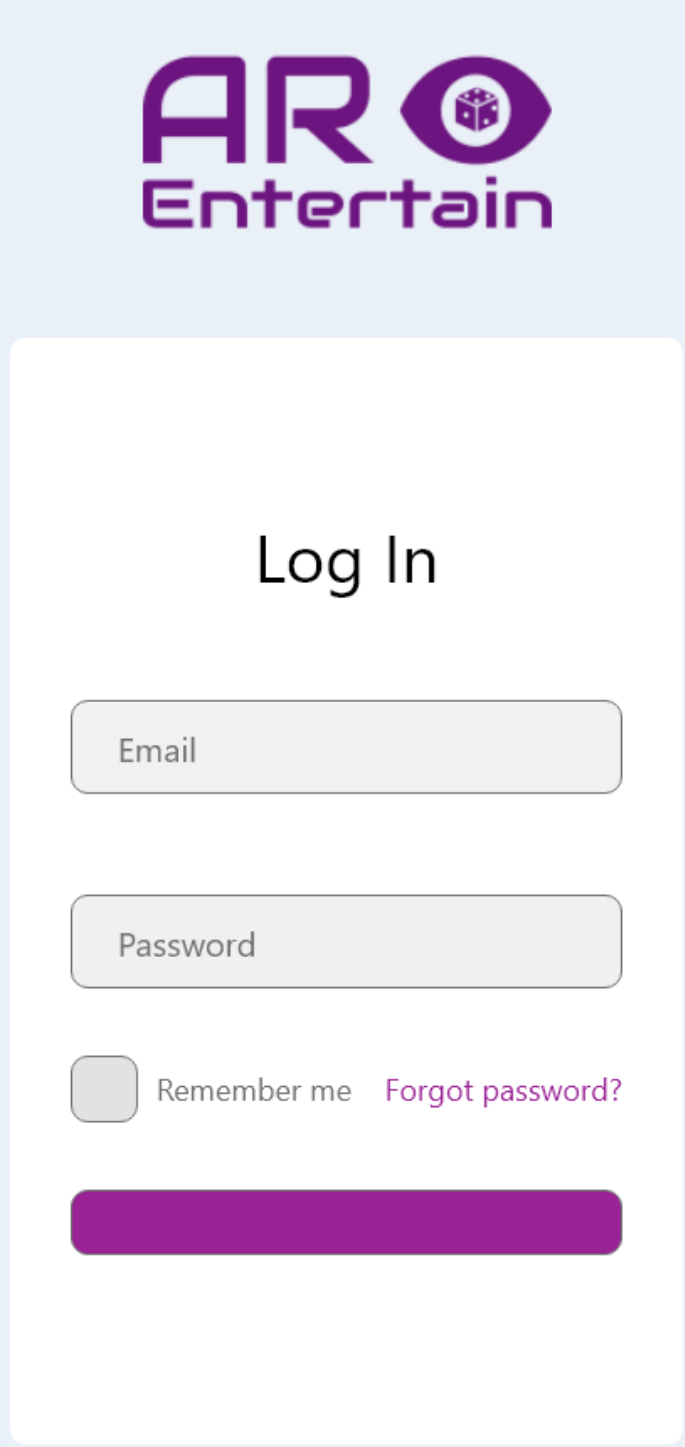
# Login

## Personas

- Ostoja Pantic
- Nebojsa Djeric

Related Tasks: None(assumption is that everyone needs to login)

This is the login page, where users must login with their credentials. It's a simple and standard login page used for most apps today.



The image shows a login page for 'ARO Entertainment'. At the top, the logo 'ARO Entertainment' is displayed in a purple font, with the 'O' in 'ARO' containing a small cube icon. Below the logo, the text 'Log In' is centered in a large, black, sans-serif font. Underneath, there are two light gray input fields with rounded corners. The first field is labeled 'Email' and the second is labeled 'Password'. Below these fields, there is a small gray checkbox followed by the text 'Remember me' and a link 'Forgot password?' in a purple font. At the bottom of the form, there is a solid purple button with rounded corners.

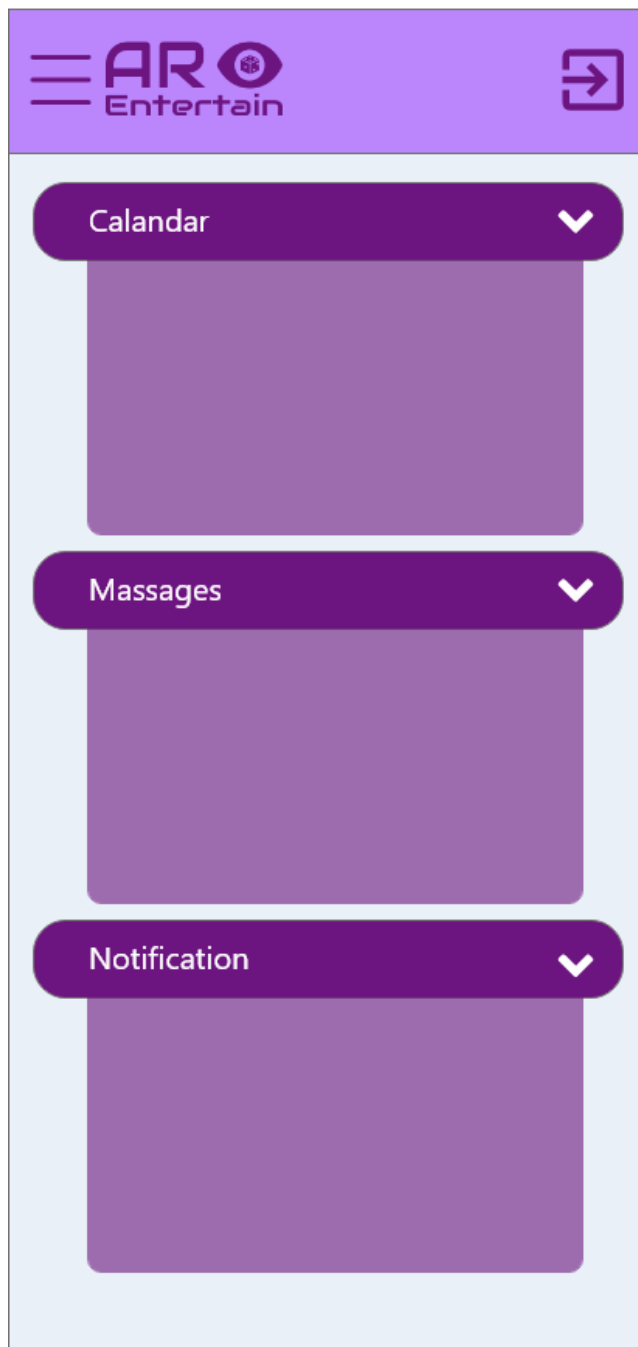
# Home Page

## Personas

- Ostoja Pantic
- Nebojsa Djeric

Related Tasks: None("home page")

This is the first page a user would see when they open the app(assuming that the user is logged in. It gives you a quick overview of the most important information a user would want to see at a quick glance, such as upcoming events, messages from there groups and notification from staff.



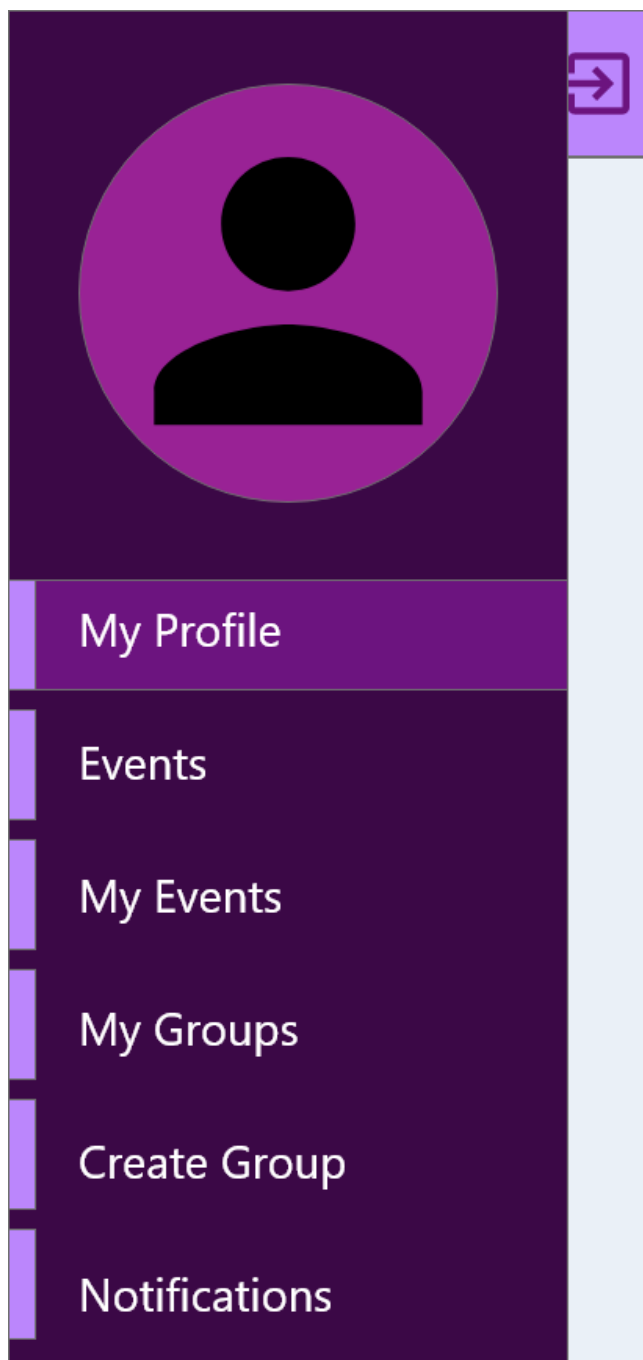
## Side Bar

### Personas

- Ostoja Pantic
- Nebojsa Djeric

Related Tasks: All Tasks(selecting the associated tab for the task)

A typical sidebar that needs to display different options for the users. Opened with a simple swipe from the left of the screen, or pressing the AREntertain logo on the top of the screen. The sidebar shows which user is logged in and shows the different tabs, highlighting the one that is open.



## My Interests

### Personas

- Ostoja Pantic
- Nebojsa Djeric

### Related Tasks: All Events

A way for the user to choose his interests, that directly connects to the choosing of events. The user is able to pick what kind of interest they are interested in by scrolling the other Interests and clicking the ones they want. There is also a search options for the other interests(forgot to show it in the design). People can remove their interests by clicking them in the “My Interests” tab.

The image shows a mobile application interface for managing interests. At the top is a purple header bar with the 'ARo Entertain' logo on the left and a square icon with a right-pointing arrow on the right. Below the header, there are two main sections. The first section is titled 'My Interests' in a dark purple rounded rectangle with a white downward arrow on the right. Below this title, there are four light purple rounded rectangular buttons: 'AR', 'VR', 'Gameing', and 'Teaching Tools'. The second section is titled 'Other Interests' in a similar dark purple rounded rectangle with a white downward arrow on the right. Below this title is a large, empty light purple rectangular area. At the bottom of the screen is a large, dark purple rounded rectangular button with the text 'Save Changes' in white.

## All Events

Personas

- Ostoja Pantic
- Nebojsa Djeric

Related Tasks: My Interests, My Events

A way for the user to look at all the planned events and choose the events that they would like to participate in. Events that are “Full” still show up, but are unable to be chosen to select(Highlight). When you choose all the events you would like to participate in you “Save changes” to add them to My Events. You can look at all events, or only at the events that have interests that you selected in My Interests.

The screenshot shows a mobile application interface for AR Entertainment. At the top is a purple header with the logo and a menu icon. Below the header are two tabs: 'All' (selected) and 'Interests'. A list of four events is displayed, each with a date, time, title, status, and location. A 'Save Changes' button is at the bottom.

Date	Time	Event Title	Status	Location
Thursday, 8 April	5:00 PM	Introduction to ARE	Full	HMLM 301
Friday, 8 April	6:00 PM	AR in Gaming	30 seats left	HMLM 301
Friday, 15 April	6:00 PM	VR in Gaming	15 seats left	HMLM 301
Monday, 18 April	5:00 PM	ARCore Image tracking	50 seats left	HMLM 301

Save Changes

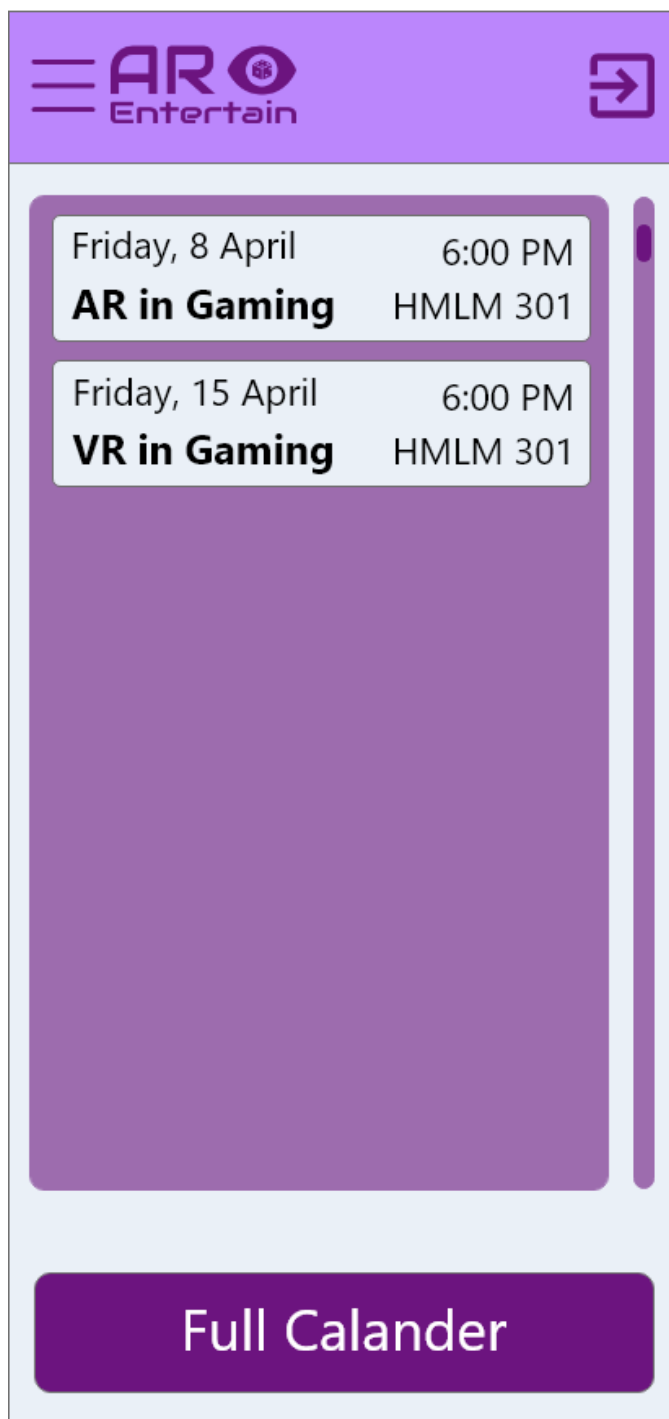
## My Events

### Personas

- Ostoja Pantic
- Nebojsa Djeric

### Related Tasks: All Events

A simple way to look at all the events that the user has selected to participate in. Here the user will also be able to select events that they would like to drop, if they are unable to go to the event. Selecting the event will give you a description of the selected events and options for the user to interact with(example: dropping the events).



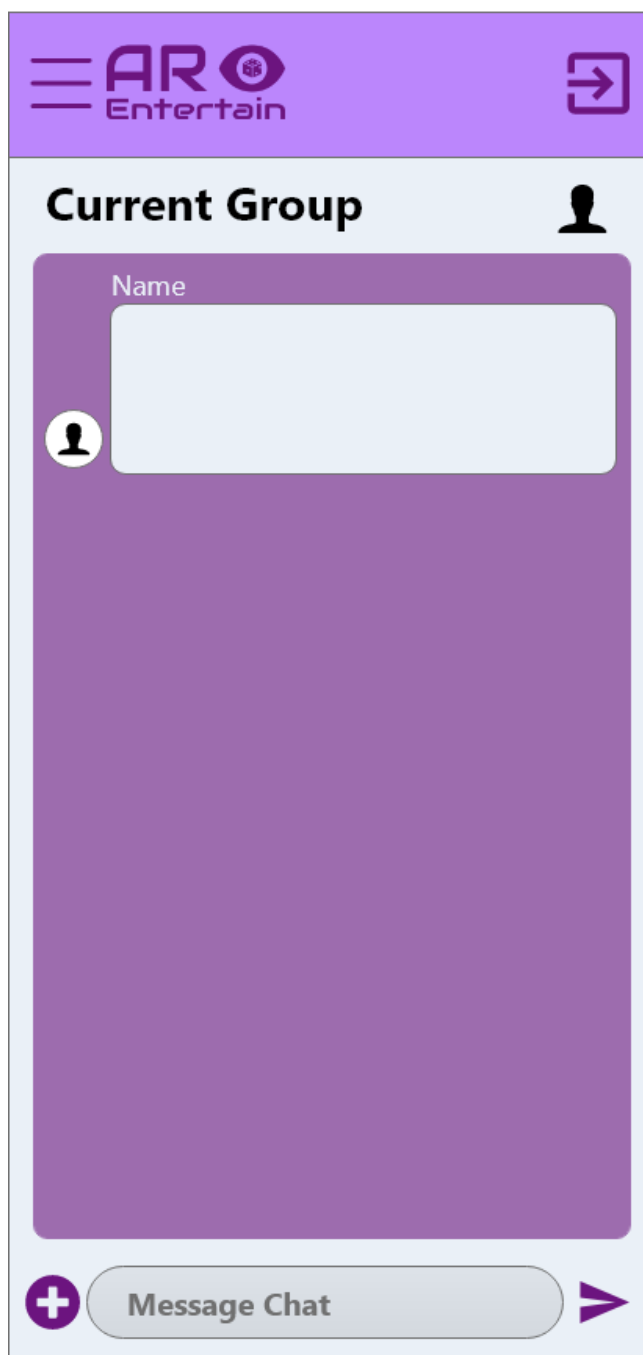
## Group messaging

### Personas

- Ostoja Pantic
- Nebojsa Djeric

Related Tasks: create events

A way for the user to talk to other users of the group, all members of the group have access to the messages. There is a way to look at the members of the group by pressing the “person” icon on the right hand side, that will bring up a list. Members are able to send personal messages(“whispers”) as well by using the member list.





## Create Group

### Personas

- Ostoja Pantic
- Nebojsa Djeric

Related Tasks: group messaging

This way users can create public or private groups. Users can make a description of the group, which can be from a single subject, or a way to find people who are interested in the same thing as the user. There are also way to invite people into the group at the later stages of the group making process.

AR Entertain

### Create Group

Group name

Public Private

Group Description

Interest Tags

AR VR Gameing Teaching Tools

Create Group

OBJ OBJ OBJ

# Reflection

## Pros:

- Following the typical trends and paradigms that other mobile apps use, which makes a simple and easy to navigate for new or inexperienced users. The sidebar gives an easy way to get to the most important parts of the system, as is used in other mobile apps.
- Trying to make a design as simple as possible that does not over clutter the screen, makes the pages clean and easy to process.
- Using the same color palette and conventions for all the different pages of the system, making it look as if they are all a part of the same app.

## Cons:

- Focusing on only a mobile app, leaves a lot to be desired. If I would be developing the app farther, I would need to make a working desktop version as well. The mobile app achieves everything that the use cases need, but some users prefer using desktop apps and in some use cases a desktop app would be more optimal.
- Currently the app has only one color scheme, that could come up as a problem if people who are color blind are using it. Giving different color options would make up for that problem, and even give people who like to personalize their apps a way to do it. As the system does not have a concrete color pattern, there are endless ways to go about this.

I think I achieved in making a system with a clean and “familiar feel” design, I think there is no need for a ‘learning how to use’ function for this system.