

CS308 SOFTWARE ENGINEERING

PROJECT DOCUMENTATION

COFFEE TABLE

GROUP 2: Second Group

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# ABSTRACT

The sole purpose of our project is to make your and your friends free time scheduling as easy and as efficient as possible. This project will help the modern man, who is so busy that he or she doesn’t have time for a coffee with his or her friends,to properly and efficiently manage his or her already tight free time. Also we can hear that this „new technology“ took from people everything they had in past and people today become more solitary trying to catch every meeting and arrive in time and fullfil all obligations which are on the way of all of us. So we thought that this „new technology“ can help us to be more organized, and catch up with our old high school and college friends. It will also save time and money that we spend making unnecessary phone calls, so that we can hear the other person on the phone saying : „I dont have time“.

# DOCUMENT REVISION HISTORY

## First Revision

*Rev1.0 March 14 ,2019 – initial version*

Our first and initial version was completely different than the current one. That version included a project that was called „Weather Forecasting“ which would be a web page and work as an information box for getting and finding all informations that people need about certain day's weather. It would include day, month, year, temperature ( celsius or fahrenheit ), run, humidity, precipitation, and some other functionalities.

**Second Revision**

*Rev1.1 March 21 ,2019 – changed version*

In our last moments of making the final decision, we find out that it would be more better and useful to take our journey on another level and make it more challenging and harder for us as a group. We decided in our group that our next goal is to make „COFFEE TABLE“ as a panel for scheduling and creating much more better and bigger things with more functionalites which we will discuss and describe after, during our project making process. We have to highlight that our dear professor cooperate with us and helped us during our decision making. Thank You for that.

**Third Revision**

*Rev 1.2 April 15, 2019 – pre/final version*

During our regular meetings we finally decided that our project is going on right way and our final product need to be done. As we mentioned before during our „Project Documentation“ that we first were thinking of implementing weather forecasting, then after few consultations between us and our professor we decided to implement new project titled „Coffee Table“. It stayed like that until our final project meeting. Now our first object is to implement mentioned things and parts from our „Project Documentation“. We didn`t changed our project too much it stayed like it was before. We are now just working on making good and nice code which will run properly and working perfectly so that we can show our work.

**Fourth Revision**

*Rev 1.3 April 30 , 2019 – final version*

During our regular meetings we finally decided that our project is going on right way and our final product need to be done. As we mentioned before during our „Project Documentation“ that we first were thinking of implementing weather forecasting, then after few consultations between us and our professor we decided to implement new project titled „Coffee Table“. It stayed like that until our final project meeting.

Whats done, whats not done ?

To be honest we didnt implement all things and features that we imagined that we are going to do. Some things like map (location), chat, weather we couldnt manage to make it work properly.We were trying but ASP.NET was a new thing for us. We mentioned these things in our functionalities part but we didnt implement it. Moreover our front/end wasnt like we preseneted first time that its gonna be. It was a little bit different but with all shown functionalities except these that we mentioned already above. So we changed it in our Design Documment. In the other hand we just added at the end of our Progress Table „important notation“ about GitHub so that you can check it. Also we have to say that this was our first time to use ASP.NET so basically all of us were doing it from the scratch. We are proud that we finish something so we could present it in front of you. Thank You for support during our work.

# GLOSSARY

* React JS – it`s a framework which we use with JavaScript. Or we can say it`s used as a platform for creating a GUI ( Graphical User Interface ).
* JavaScript – OOPL ( Object-oriented programming language ), sometimes we can hear „JS“ which is abbreviation for JavaScript. It`s mostly used for web technologies.
* Angular – it`s something similar to ReactJS. We use it as a platform for building mobile and desktop web applications.
* ASP.NET – same like previous it`s web application framework
* C# ( C Sharp ) – programming language, mostly used with .NET framework
* OS – it`s abbreviation for operating system
* DND – it`s abbreviation for Do Not Disturb
* BLF – it`s abbreviation for Blue light filter which is popular in last period on Android OS

# INTRODUCTION

As we can see from the beginning of this documentation paper, our software product is called „COFFEE TABLE“. We would like to try to make it more closely to all our users in the future. Our software product will work as a panel probably as a web page, but also as a mobile application. To be more precise it will look like an group planning application. We will try and give our best to make it work proper on all devices which are using Android OS.

So the main goal of our application is to help people who live in this busy world to find time for relaxing and going out with their friends. This is especially important for students, with their busy lecture and tutorial schedules. It is planned that this application will also be of financial benefit for their users as they will no longer spend their phone credit for conversations that are made just for the sgoal of planing.

The first option and functionality for the user is the log-in ability.When user opens the page it will show the log-in window and register button.If the user is not already registered then there will be a button for making a new account. After our user logs-in there are going to pop up few options. There are going to be buttons for creating a new group, or just joining a certain group that already exists. Probably these already existing groups would have an entrance key, like a cipher which will be stored in our database.For instance: something similar as our „IUS Moodle“ system. If a user wants to enter a certain course you need first to get approval from admin or enter a pasword.

After a user enters a group, a big schedule is shown and there he will be able to put his lectures, tutorialss, etc and free time. Moreover we will make it visually attractive and make green places if nobody inside of that group has anything at that time and make red place if there is certain overlap at that time. So basically you can see when your friends are free to drink coffee or having a cup of tea or they have lectures and then what we can plan for future.

Moreover we will add notification bar on a web page and do the same thing for our mobile users, so that they can be notified everytime when a group member is free and can take coffee a small tour. Inside of our groups there is going to be a chat and a group chat so people can contact with each other. One special thing on it is going to be a list of links that would show usall interesting and special places in Sarajevo, or some other city in Bosnia and Herzegovina. We will implement a button for reservations. For all possible links in the list thet offer reservations, we will incude the ability to reservre from our webpage At the end we will include a payment method over our web page, that will work using bank card.

In the other hand we would like to include a map of city with an option so that every user can pin locations on which he or she is at that time. Like these modern sites are offering today similar to facebook or instagram. There will be an option for every group member for publisihing a status that will be visible for just group members or for all other people using the same application. It would offer certain already made statuses by admin like: „not willing to go out“, or „want to go out“ or some own status which will be written by a user. Probably every user will have a picture or some icon on personal profile so that people can meet each other and it`s also one of the ways for preventing some negative cases which could happen. So it`s because of some security reasons. The last thing that will be implemented is statistic which will automatically follow visitors to our page but it will give an option of showing with whom persons you are taking your free time and spend it together.

In general, the system will be profitable, because the atraction that it offers to students is really enormorous. Also it will be benefitital to get into a bussiness deal with the owners of these links that we will use in our web page.

Regarding the user characteristics, since our users are mostly students, we expect that he or she is experienced with the concept of tehcnologies and their impact in our everyday life. Also our user is an technical expertise, already familiar with the UI, so probably we will look and prefer design over simplicity of the UI.

The assumptions are that the user is already familiar with such apps, and since it is a web application there are no system assumptions. The user expertise will allows to make a web page without instructions. Dependencies include downloading all the necessary libraries, and that is on the developer side, while for the user there are no dependencies, also there are

# SYSTEM REQUIREMENTS SPECIFICATION

We are not yet really sure with technology to use, but we will try to use Anglura, React or .Net as our back-end bone for our application.

Hardware requirements are prety simple, every software device that supports modern web browsers.

## Emergent system properties:

## Reliability: The web page will achieve a high level od reliability, the most important thing is to make the scheduling reliable which is the core of our application. It is impossible to have that part to be unreliable.

## Security: Beside the typical security that is present for web pages that use login, we will keep track of some users personal info that will help if we encounter some problems that involves kidnapping.

## System Performance: We hope that it will be easy for all systems to run it on, here we mean on AndroidOS. About computer it`s without any doubt that any computer or laptop can open every normal page.

## Availability: It will be online available for all users, and it will not require some big system requirements to run on.

## Portability: As we sai,d from before it will work as web page and web application. So portability is almost 100%.

# FUNCTIONAL REQUIREMENTS

## Must haves:

## Registration: User of our web page or mobile application will need first to registrate and make own account so that person can access to own profile and communicate with other people or making groups.

## Log-in: In the case that user already has an account then user will log-in and get all needed informations about page or application. It will show him other people in a group and about their status in that time. If they are free or not.

## User Profile: To use our software product it wouldnt be possible without a profile that every person must to have to acces and it will be filled with their personal info.

## Creating a group: Users can create a group and become a new group admin

## Joining a group: Users can try and be a part of a group

## Adding and deleting members:All group admins have full control over their group

## Planning: The ability for the user to click and determine his schedule.

## Should haves:

## Chat: Our web page will have a chat for all users.

## Group Chat: We will try to implement this chat on a mobile application.

## Famous Places: It will show famous places which a user should visit inside of certain city ( best places for drinking coffee )

## Reservations: Our user will have opportunity to reserve seats for places that offer such thing among those links on the web page.

## Statisctic: Measuring our web page visitings and whom people are spending most time with you

## Weather: One feature that could advance our app is showing current weather to show is it good to go out for a meeting

## Mapping: The abbility to pin your location on the map so the other group members can see it.

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## Could haves:

## Cooperation: Here we mean that we could make it work with some other similar web pages so people can interact with each other and make new friendsips.

## Global usage: Probably our web page and mobile application is going just to include our country, but it would be nice if it can be usage trought all world.

## Mail Box: Beside chat it will be great if user could recive emails using „coffee table“ application on his device.

## Weather: One feature that could advance our app is showing current weather to show is it good to go out for a meeting.

## Alarm: Alarm is good thing so if we forget to that our free time is finished our alarm turn on and alert us that we have to go back on a work.

## Roads: This thing could be useful just for car drivers, which could show to user if some road is close so that user can use another road to get faster on destination.

## Time: Our web page will include clock which you will see at the begining of page

## Would haves:

## Night mode: It would be nice if we could make a light mode, for people who are going to use it at night. Here we mean on mobile application.

## DND- Do not disturb: This is one mode that can be implemented for users that are inside of certain group but they dont want to be disturbed even if they are in their free time by schedule.

## Background: Changing background wallpaper is one of advantages that certain applications are offering. We would like to have it, but it requires time to find out how it works.

## Themes: To offer a user to have a menu where certain themes would be offered so user can change it and manage on own phone.

|  |  |
| --- | --- |
| Primary Actor | Use Cases |
| User | RegisterLog-inFulfill profileAdd a pictureJoin groupEnter a passwordPuts statusMark current locationModify schedule |
| Group Admin | Accept membersDelete members |

# 3.1 USE CASES

**3.1.1 Register**

The main purpose is to create own profile and store it inside of database.

**ID:** FR1

**Priority:** High (Must have)

**Pre-condition:** Internet connection, browser, application on a mobile device

**Post-condition:**Getting a new account ready for use

**Basic Flow:**

1. User opens browser and types name of web page or opens mobile application.

2. Then user click „Register“ button to make new profile and it will link user to it.

3. After it user input all informatios that are required from him.

**What can go wrong**

One thing that can happen is that user name is already taken by some other people so it will require to change user name. If it`s not taken before, then everything will pass successfully.

**3.1.2 Log-in**

Purpose of log-in button is that user enter username and password and user will be see own profile.

**ID:** FR2

**Priority:** High (Must have)

**Pre-condition:** User need to have a account to log-in in system

**Post-condition:** If user has profile it will be successfull otherwise it will require first to register on page.

**Basic Flow:**

1. First user enters homepage name or uml.

2. The window for logging will apear first and register button beside it in case that user doesnt have profile.

**What can go wrong**

Everything will be fine, only problem that can appear is that if user enters wrong name or password then it will pop up a message that it`s incorrect so you have to type it again.

**3.1.3 Fulfill Profile**

The main purpose is that user have to fulfill all neded informations about itself

**ID:** FR3

**Priority:** High (Must have)

**Pre-condition:** To log-in using personal account

**Post-condition:** Getting 90% of compliting own profile

**Basic Flow:**

1. The user click edit profile

2. Then new window will come out

3. The user enters all informations that are required about him as a person, like ages, job, place.

**What can go wrong**

If a user is trying to make a fake profile and doesnt want to fulfill all informations it will navigate him always to the begining and doesnt let him to access.

**3.1.4 Add a Picture**

The main purpose is to add a picture so people can recognize you and get familiar to you

**ID:** FR4

**Priority:** High (Must have)

**Pre-condition:** To fulfill your personal informations

**Post-condition:** Getting a 100% done with making you profile

**Basic Flow:**

1. The user click on a button which says „add a picture“

2. Then new window is open to find a picture on a computer

3. When user find a picture just click again „ add a picture“

4. It will add a picture, just you have to wait for few moments.

**What can go wrong**

If a picture is some such a big size so our web page cant load it it will show the message that its too much, and user have to resize it to add.

**3.1.5 Join a group**

The main purpose is to connect with other people so you can track each other

**ID:** FR5

**Priority:** High (Must have)

**Pre-condition:** Having a profile on a „Coffee Table“ application

**Post-condition:** Joining inside of a group with others

**Basic Flow:**

1. Find a group which user wants to enter in

2. Click on a button „Join a group“

3. Wait until group administrator allow user to access

**What can go wrong**

If a user is foreign or not know person then probably user is going to be rejected.

**3.1.6 Enter a Password**

The main purpose is to stay safe inside of groups and to take them private

**ID:** FR6

**Priority:** High (Must have)

**Pre-condition:**Click on a button „Join a group“

**Post-condition:**Accepting by group administrator

**Basic Flow:**

1. The user click „Join a group“

2. New small window show up and asks to enter a password for a group

3. The user enters password and wait until admin allow him to enter

**What can go wrong**

If user enters wrong password it will pop up that its wrong and cant be acceptted.

**3.1.7 Puts a Status**

The main purpose is to show to others about your situation.

**ID:** FR7

**Priority:** High (Must have)

**Pre-condition:** To enter in a group

**Post-condition:** Showing others about your current situation

**Basic Flow:**

1. The user click on a status

2. It gives him to choose few already made status or make new one

**What can go wrong**

If status which user wants to enter is too long and consist of too many characters then it will show him that it cant be accepted so user have to change it.

**3.1.8 Mark current Location**

The main purpose is to show others from your group where are you at current time so they can find you

**ID:** FR8

**Priority:** High (Should have)

**Pre-condition:** Be inside of a group

**Post-condition:** Your friends can easir find you

**Basic Flow:**

1. The user open maps

2. Then user pins current location

3. Click done

**What can go wrong**

If a user pins wrong location it will show him that maybe „user was thinking something different“.

**3.1.9 Modify Schedule**

The main purpose is that user have opportunity to make own schedule and show it to others

**ID:** FR9

**Priority:** High (Must have)

**Pre-condition:** Having a profile on „Coffee Table“

**Post-condition:**Showing your free and busy time

**Basic Flow:**

1. The user opens schedule

2. Then new page is showen infront of him with schedule

3. The user opens small places like boxes and inputs duties

4. The user is matching with a time

5.Finally user gets schedule done

**What can go wrong**

User can by mistake delete already made schedule so user have to make it all from scretch again.

**3.2.1 Accept memebers**

The main purpose is that group admin have to authorize your request for joining his group.

**ID:** FR10

**Priority:** High (Must have)

**Pre-condition:** To have an already created group

**Post-condition:** Having a new member in your group

**Basic Flow:**

1. The group admin gets a notifications for a join request

2. Admin clicks on accept

3. Notifications is send to the new member

**What can go wrong**

The admin accidently clicks on accept. But it can delete it later.

**3.2.2 Delete memebers**

The main purpose is that group admin has the ability to delete the users who are part of his group.

**ID:** FR11

**Priority:** High (Must have)

**Pre-condition:** To have an already created group

**Post-condition:** Deleting a member in your group

**Basic Flow:**

1. The group admin clicks on the profile icon of a member

2. Popup shows with to options: seeing or deleting the profile

3. Admin clicks on deleting

**What can go wrong**

The admin accidently clicks on delete. We dont know how to save that mistake.

# 3.2 NON-FUNCTIONAL REQUIREMENTS

|  |  |  |
| --- | --- | --- |
| **Requirement** | **Definition** | **More Details** |
| NFR1.:  Hardware interface -I | Minimum  hardware requirement for the client. | * Windows 7, Windows 8, Windows 8.1, Windows 10 or later * An Intel Pentium 4 processor or later that's SSE2 capable * OS X Yosemite 10.10 or later * 64-bit Ubuntu 14.04+, Debian 8+, openSUSE 13.3+, or Fedora Linux 24+ * An Intel Pentium 4 processor or later that's SSE2 capable |
| NFR3.:Software Interface | Software requirements for the system. | Database:  -group admin  -user  -group |
| NFR4.: Communication Interface | Use needs connection to the internet to access the system via browser. | Internet connection |

# 3.3 RELEASE PLAN

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement** | **Duration** | **Increment** | **Priority** | **Dependencies** | **Release** |
| FR1 | 2 days | 1 | High, must have |  | 1 |
| FR2 | 2 days | 1 | High, must have |  | 1 |
| FR3 | 2 days | 2 | High, must have | FR1 | 1 |
| FR4 | 4 days | 3 | High, must have |  | 1 |
| FR5 | 3 days | 3 | High, must have |  | 1 |
| FR6 | 2 days | 3 | High, must have | FR4,FR5 | 1 |
| FR7 | 5 days | 4 | High, must have |  | 1 |
| FR8 | 2 days | 5 | High, must have |  | 1 |
| FR9 | 4 days | 5 | High, must have |  | 1 |