

Freelancer Project

Group 8

Nov 2, 2018

Abstract

This file is a milestone report about Group 8's Project for CmpE 451 class. Information in this file is up to first customer milestone of the project.

1 Executive Summary

1.1 Summary of the Project Status

Project Introduction

The project is a freelancing platform that will be implemented on both Web and Android with necessary API implementation. And the main objective of this project is providing an environment for clients and freelancers to collaborate in a single platform. The clients may create their projects and jobs about programming, writing, design, development etc. and post the details on this platform to find an expert on such topics.

So the things we have done in this semester are:

Reviewed Communication Plan

The team has 8 members. In order to get the best performance, we tried to plan meetings that were feasible to all of us, however that was not possible.

Reviewed and Adjusted Requirements

One of the most important things was Project Requirements. We reviewed functional and non-functional requirements to meet both our customer's needs and also standards of W3C.

Reviewed and Adjusted Project Plan

We have created a comprehensive Project Plan on the upcoming tasks and settled milestones for ourselves. The plan may be changed along the way.

Frontend-Web

- **Learned React:** We decided to make the front-end part of the web by using React. However none of the members of front-end team has a prior knowledge about react so it took time to learn and it still takes.
- **Landing Page:** We implemented a landing page for first impression. It can be improved further.
- **Login-Signup Pages:** We implemented login and sign up pages however they don't have a functionality right now.
- **Profile Page:** Profile page of a user is ready as design however it also doesn't have functionality.

Frontend-Android

- **Learned how to code android:** We were not familiar to code android. It was a challenge for us to code in this language. We tried to watch some tutorials and saw some examples.
- **Landing Page:** For this project, our landing page is the log-in page. This work is also done and waiting for its functionality.
- **Login-Signup Pages:** We implemented login and sign up pages however they don't have a functionality right now. Login page is the landing page right now.
- **Homepage:** Homepage is also designed. You can see the user's profile and it offers 3 main options such as: Recommended projects, search projects and my projects.
- **Project creation page:** Project creation is also designed. Users can enter fields for the project and create the project with their information. It also needs to have functionality.

Backend

- **Setting up the server and database:** We decided to use AWS to setup our server and database. First we applied for AWS Educate credit in order to be able to use AWS services more flexible. Then we setup one Amazon Linux instance in EU(Frankfurt) zone using EC2 service. Our first plan was to store all the frontend and backend code and also the database in the same server. But then we changed our model to single app. Therefore we decided to keep frontend and backend parts in two different servers. So that people working in frontend would only see that part of the code, same for the backend. Since Amazon Linux was not a familiar environment for us, we setup the two new servers as Ubuntu Server 18.04. We also use AWS smtp server in order to be able

to send mails to our users for changing password or similar operations.

- **Learning Django:** We decided to use Django framework for our backend part. Although we had previous experiences with python none of us had used Django before. So we got familiar with the framework by following some tutorials and creating sample projects at the beginning.
- **Creating the API:** We created services for each API endpoint so that frontend part could make a POST or GET request to our services. The endpoints we created are:
"user/login", "user/register", "user/login", "user/register/verify_email",
"user/forgot_password", "user/change_password", "ping", "csrf"

1.2 Changes Planned

- We decided to make regular meetings to keep track of the situation.

2 List and Status of Deliverables

List Of Deliverables	Status
• Requirements	Delivered
• Project Plan	Delivered
• Login	Delivered with issues
• Sign Up	Delivered with issues
• Profile Page	Delivered with issues
• Homepage	Not Delivered/Delivered with issues for android
• Project Creation Page	Not Delivered/ Delivered with issues for android

3 Evaluation of the Status of Deliverables

In brief, we believe that the current status of deliverables is not satisfactory. We will study more to present all the deliverable we have promised to our customers. We have evaluated our status on each deliverable that was promised on this milestone.

3.1 Requirements

Like all project, we have to specify what we need in our project detailed. Initially we already had our requirements from previous courses' work. However we needed to review and fix requirements. We had added annotations related parts to our requirements.

3.2 Project Plan

In this project we have to implement our project as a group, not individual. In other words, all participants of our group must be in the game because there is much to do. Due to the fact that we have a work to finish, we planned what we have to do. We settled milestones to ourselves in order not to fall behind.

3.3 Login & Sign Up

We designed and implemented login and sign up pages. However we didn't link them to the back end yet.

3.4 Profile Page

We designed and implemented profile page.

3.5 Homepage

We can't be able to prepare homepage for this milestone, we are still working on it..

3.6 Project Creation

We cant be able to prepare project creation for this milestone, we are still working on it.

4 Coding Work Done

Group Member	Work Done
Abdurrahim Eskin	Designed and implemented login, signup and homepage.
Berkay Kozan	Designed and implemented login, signup and homepage.
Burak Tepedelen	Worked on front end to back end connection

Kübra Eryılmaz	<ul style="list-style-type: none"> · Updated project plan. · Designed and implemented front-end of the landing page, login page, sign-up page and profile page.
Mehmet Çalım	<ul style="list-style-type: none"> · Created initial login-logout Django Rest API draft with a documentative default Django front-end. · In order to achieve milestone I objectives connected both back-end and front-end files on Django API. And deployed nginx to linked static files to web API.
Ozan Kınasakal	Setup and configurations of the servers and database in AWS. Worked on the deployment of the code to the server. Setting up and integrating nginx for serving of the static files. Connected smtp server in order to send emails to users.
Semih Arı	Tried to connect front end and back end.
Umut Barış Öztunç	<ul style="list-style-type: none"> · Deployed the REST API with sign up, login, ping, csrf, email verification, password change and forgot password endpoints. Set the authentication method as tokens and returned the access token over login endpoint for frontend and mobile application access verifications.

5 Requirements

Glossary

System : The entire application with every feature, for both web and Android.

Guest : A person who is not signed in.

User : A person who is registered to the system.

Username : A unique string that identifies a user.

Password : A secret string that is used to prove users' right to enter the system.

Project : An assignment that is created by a user on the system.

Tag : A distinctive string that describes a feature about projects.

Admin : A person who is able to control the system.

Client : A user who creates new projects on the system.

Freelancer : A user who develops the projects that are given by the client.

Bidding : A mechanism with which freelancer states his desired salary for a project.

Rating : A mechanism which helps users to evaluate another user.

Messaging : A mechanism with which freelancer and client will be able to communicate privately.

Dashboard : A collection of data displayed in a graphical layout.

Private Project : The project that is seen by the client who creates it.

1 Functional Requirements

1.1 System Requirements

1.1.1 Search Engine

1.1.1.1 Semantic Search

Semantic tagging shall be used for description of posts. Wikidata API may be utilized.

1.1.1.2** Filtered Search

The search engine shall support filtering by category and price.

1.1.2 Project Creation Mechanism

The system shall allow clients to create projects.

1.1.3 Bidding Mechanism

There shall be a bidding mechanism such that the biddings of the freelancer shall only be seen by the corresponding client.

1.1.4 Freelancer Client Interaction

There shall be an embedded messaging mechanism between the freelancer and the client throughout the project development. This mechanism shall be disabled once the project is completed.

1.1.5 Recommendation System

There shall be a recommendation mechanism which provides functionalities both for freelancers and clients.

1.1.5.1 The freelancers shall be recommended new projects based on previously completed projects, interest areas and fee.

1.1.6 Notification System

1.1.6.1 Any change in the project description shall be notified to freelancers who made a bid on the project.

1.1.6.2 All user types shall be notified when their account balance changes.

1.1.7 Browsing

1.1.7.1 A user shall be able to view the public projects on the home page.

1.1.7.2 A freelancer shall be able to view the recommended projects.

1.1.8 Annotation

1.1.8.1**A user shall be able to add annotations to his/her profile.

1.1.8.2**A user shall be able to add annotations to a project description, which is in a project this user created before.

1.2 User Requirements

1.2.1 Registered User Requirements

1.2.1.1 Project Creation

A user shall be able to create a project.

1.2.1.1.1 Project creation shall require a project description, categorization of the project, deadline, minimum and maximum bid price.

1.2.1.2 Profile Creation

A user shall have a profile and he/she shall be able to enter his/her e-mail, experiences and profile picture on to his/her profile.

1.2.1.3 Feedback

1.2.1.3.1 Rating

A client shall be able to rate the freelancer that works on the project after the client approves the project is ended.

1.2.1.3.2 Comment

A user shall be able to leave a comment about his/her freelancer/client, after the project has been completed.

1.2.1.4 Reporting

1.2.1.4.1 A user shall be able to report other users after he/she encounters an inconvenience.

1.2.1.4.2 A user shall be able to report projects after he/she encounters an inconvenience.

1.2.1.5 Searching

1.2.1.5.1 The user shall be able to search a project with a given set of keywords.

1.2.1.5.2 The system shall be able to provide a search mechanism that sorts the results according to the similarities with the provided search keywords.

1.2.1.6 Messaging

Freelancer and Client shall be able to communicate privately after agreeing on the job.

1.2.1.7 Bidding

A freelancer shall be able to bid on an open project.

1.2.1.8 Financial Transaction

1.2.1.8.1 A user shall be able to load money to his/her account.

1.2.1.8.2 A client shall be able to send money to the arranged freelancer.

1.2.1.9 Project Submission

A freelancer shall be able to submit his/her project to a client's storage.

1.2.1.9.1 The client storage should be able to accept submissions up to a file size limit(will be determined later).

1.2.1.10 Freelancer Selection

1.2.1.10.1 A client shall be able to select a freelancer among the users that made a bid to his/her project.

1.2.1.10.2 A client shall be able to select a freelancers bid if there is sufficient funds in his/her account.

1.2.2 Non Registered User Requirements

1.2.2.1 Signing Up

A non-registered user shall be able to sign up to the service.

1.2.2.2 Visibility

A non-registered user shall be able to see projects.

1.2.3 Admin

1.2.3.1 Examining Reports

An admin shall be able to examine reports that have been send by registered users.

1.2.3.2 Control Dashboard

An admin shall be able to control dashboard.

1.2.3.3 Blocking

An admin shall be able to block some registered users' some or all activities or their profile who violate some certain rules.

2 Non-Functional Requirements

2.1 Privacy

2.1.1 Anonymity

- A user shall be able to protect his/her anonymity by not sharing his/her real identity.

2.1.2 Project Privacy

- A client shall be able to choose whether he/she wants his/her project to be public or private.

2.2 Security

2.2.1 Financial Transactions

- Financial transactions should be secure and reliable.

2.2.2 Password Requirements

- To be able to sign up users shall be required to have a secure password.

2.3 System Properties

- The implementation should follow the standards introduced by the World Wide Web Consortium(W3C).

2.4 Response Time

- A request made to the server should be responded in no more than 5 seconds.

2.5 Storage Requirements

- A user shall be able to store at least reasonable(to be decided later) amount of data.

2.6 Usability

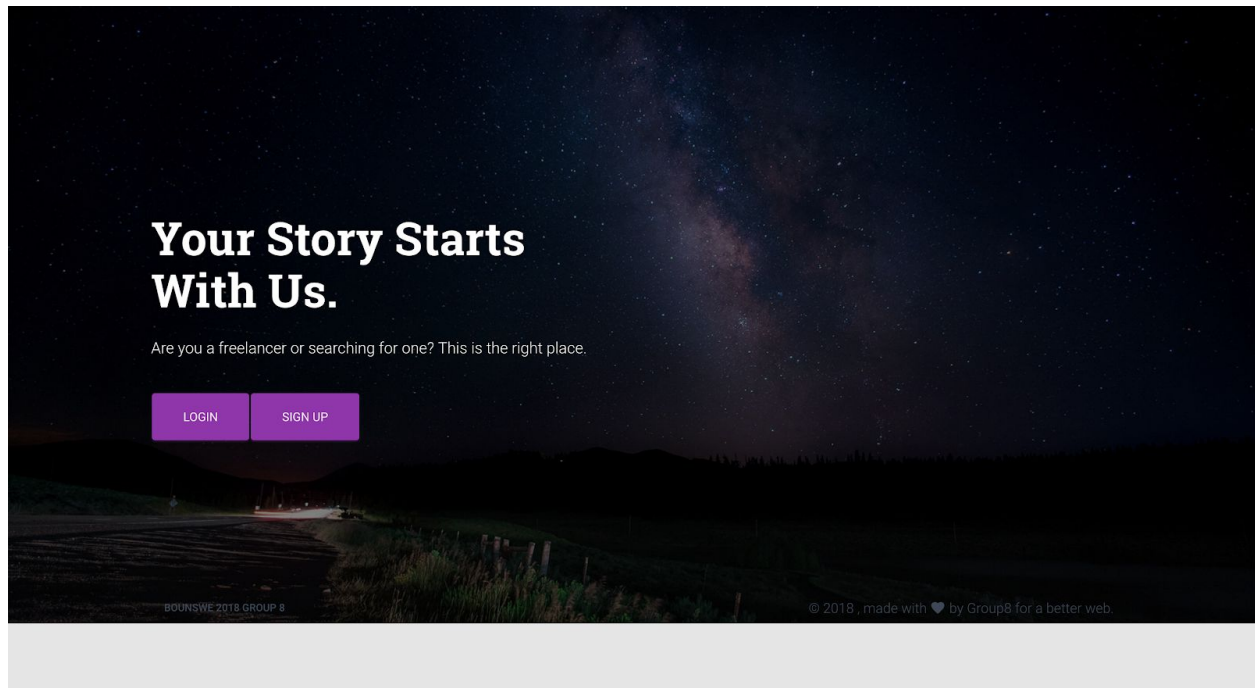
- The platform shall be easy to use and easily learnable.

6 Design

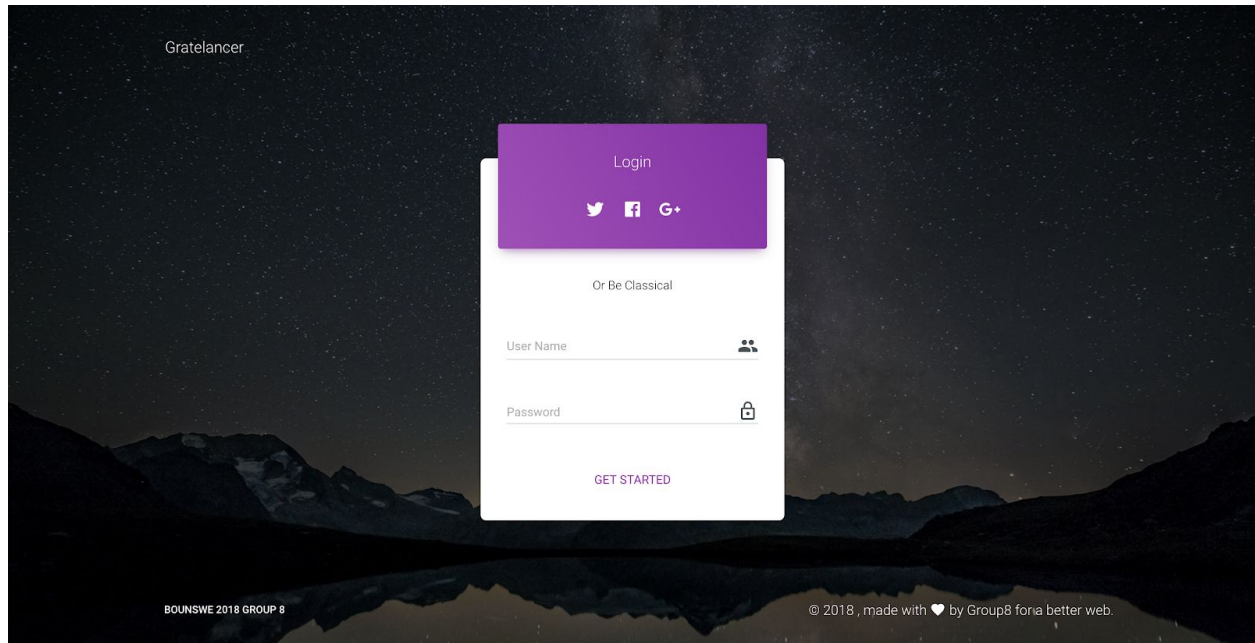
In this part of project we took screenshots of our web and android front-end.

6.1 Front-end Web

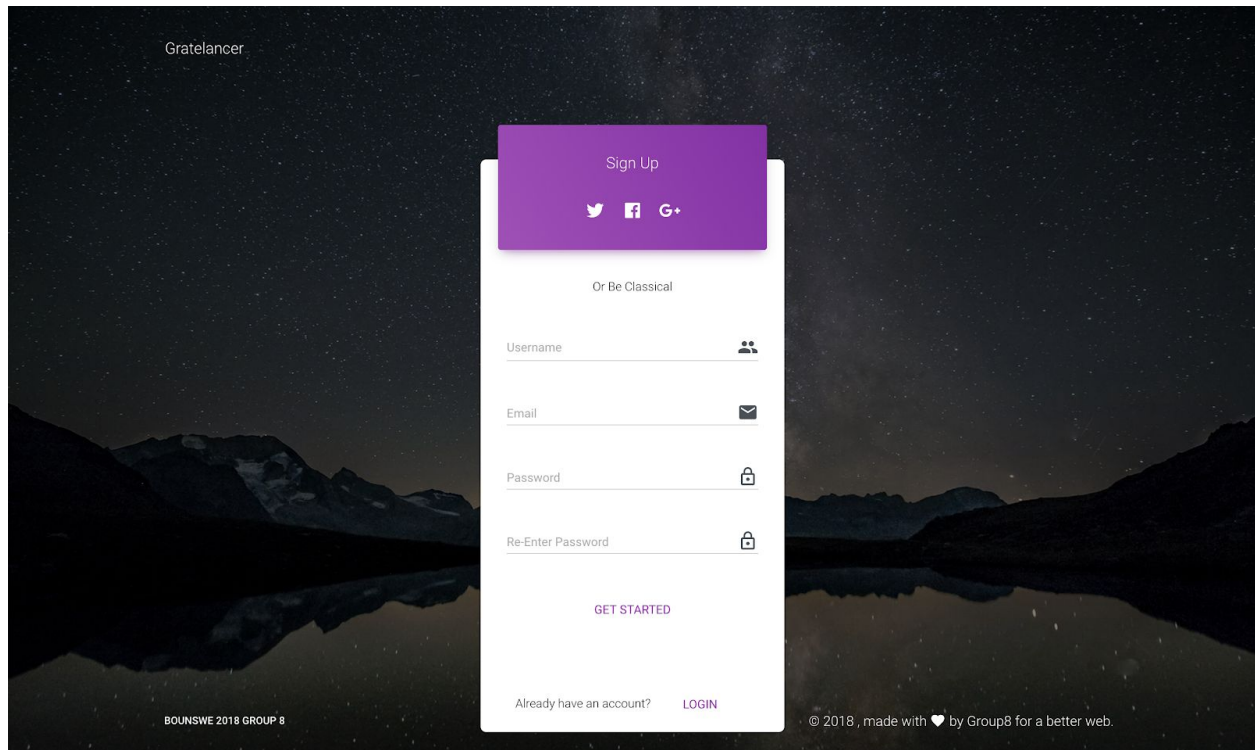
6.1.1 Landing Page




6.1.2 Login Page



6.1.3 Sign Up Page






6.1.4 Profile Page




Mehmet Yiğit


DEVELOPER

Mehmet was born in Mersin and he spent her life in Mersin till he get into Computer Engineering in Boğaziçi University. He was very interested in programming since high school but but he is not very interested in lectures so it is his sixth year in computer engineering. He is very good at a lot of programming language like C++ Phyton java etc. He made many web and mobile application.




WORK



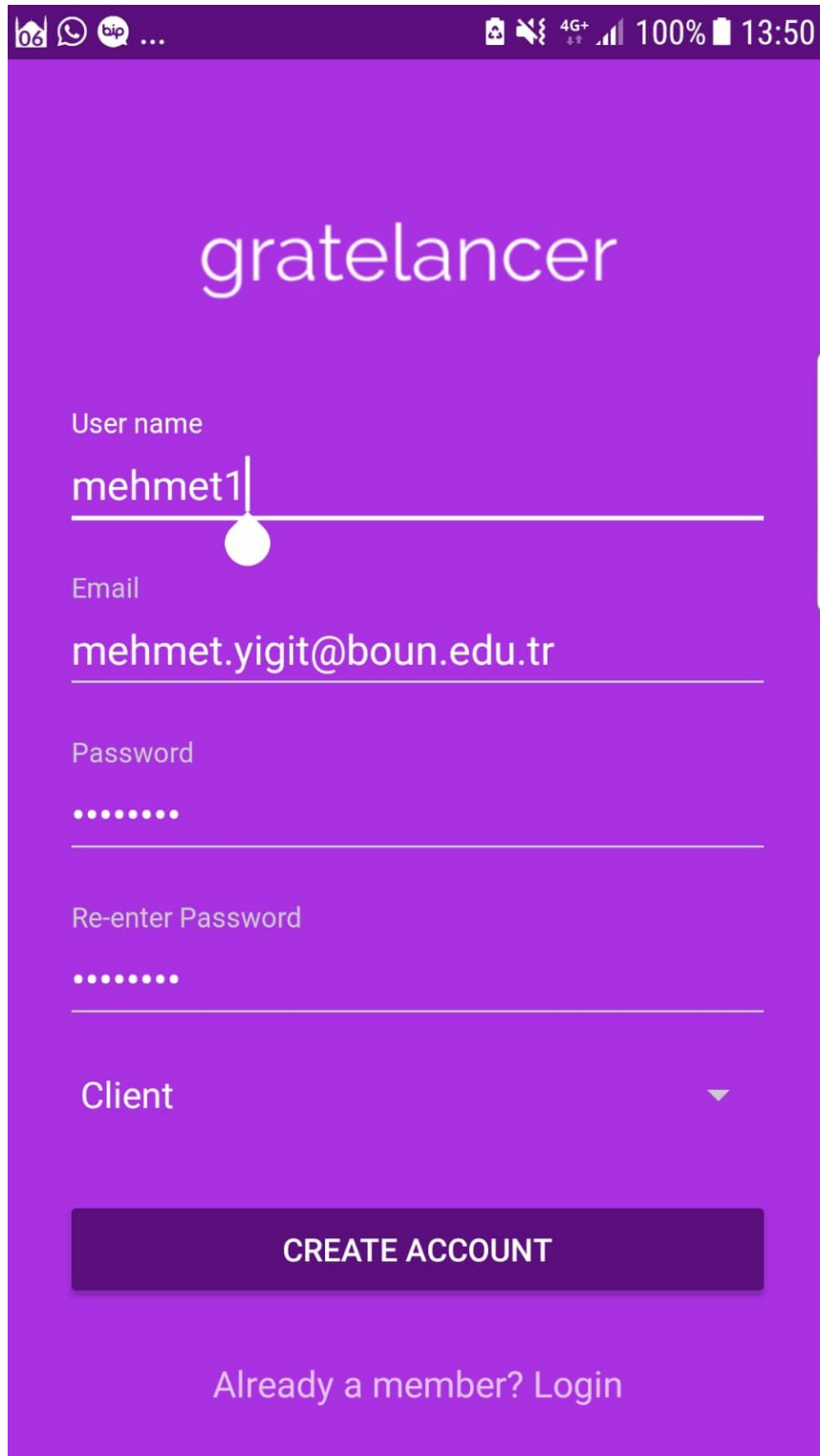
FAVORITE

BOUNSWE 2018 GROUP 8

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6.2 Front-end Android

6.2.1 Sign-up Page



The screenshot shows the sign-up page of the 'gratelancer' app. The page has a purple background. At the top, the status bar shows various icons and '100%' battery. The app logo 'gratelancer' is centered. Below it, there are four input fields: 'User name' with 'mehmet1', 'Email' with 'mehmet.yigit@boun.edu.tr', 'Password' with masked dots, and 'Re-enter Password' with masked dots. A 'Client' dropdown menu is below the password fields. At the bottom, there is a 'CREATE ACCOUNT' button and a link 'Already a member? Login'.

gratelancer

User name
mehmet1

Email
mehmet.yigit@boun.edu.tr

Password
.....

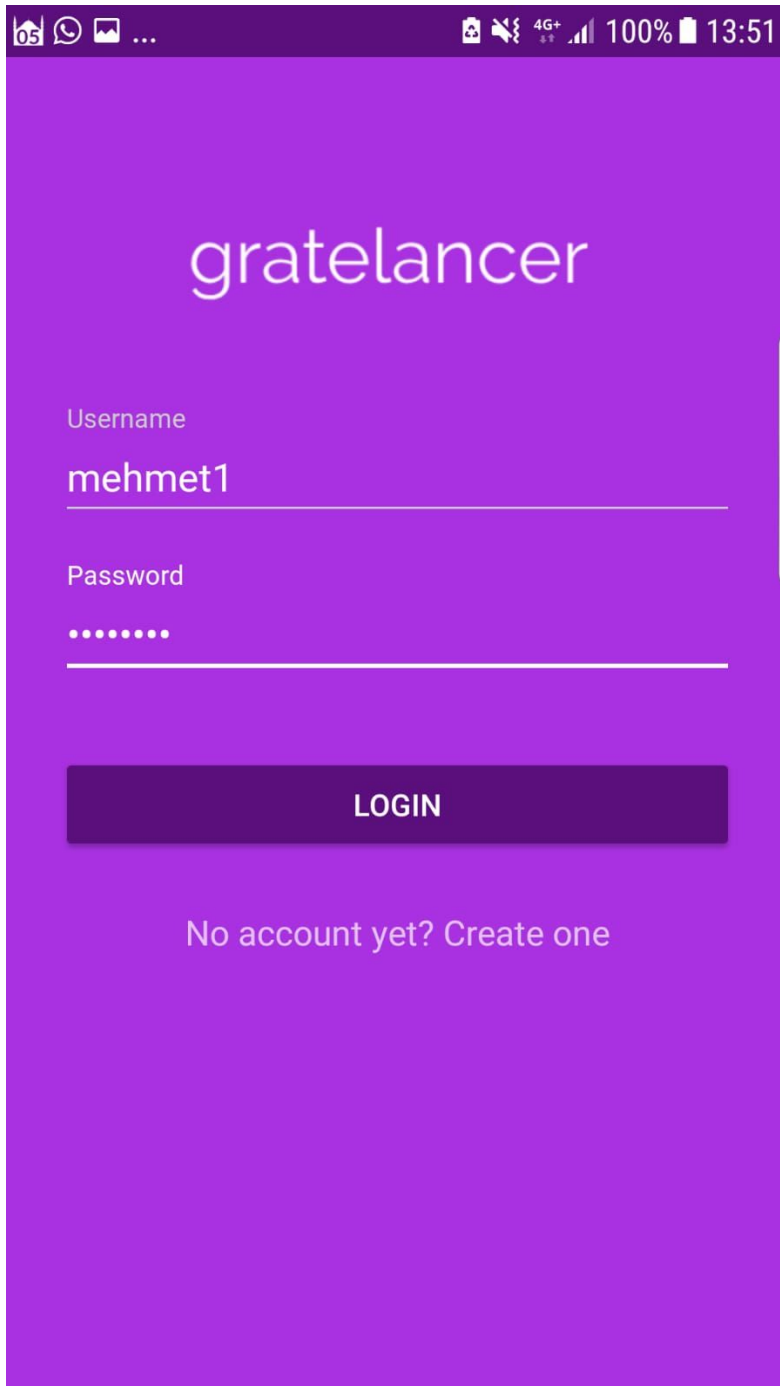
Re-enter Password
.....

Client ▼

CREATE ACCOUNT

[Already a member? Login](#)

6.2.2 Login Page



05 13:51 4G+ 100%

gratelancer

Username

mehmet1

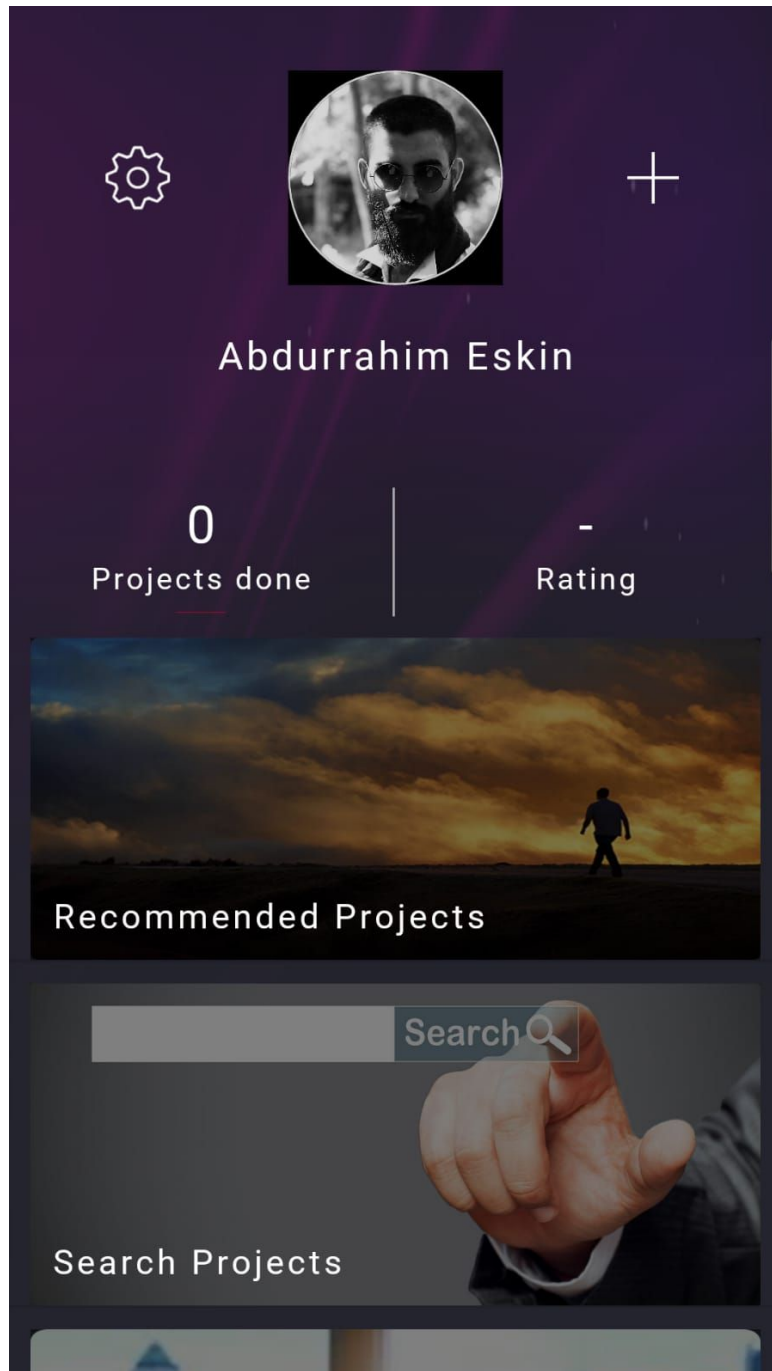
Password

.....

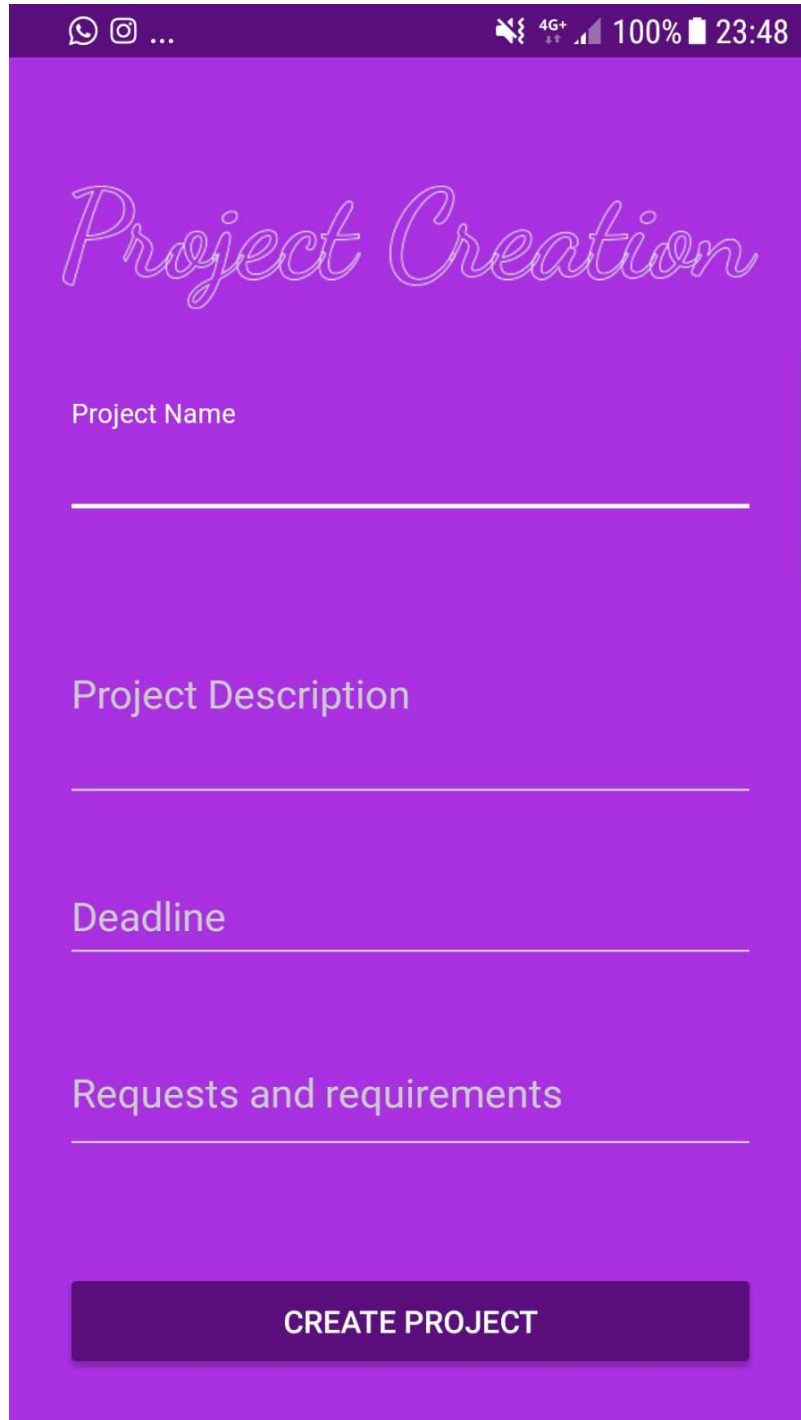
LOGIN

No account yet? [Create one](#)

6.2.3 Homepage



6.2.4 Project Creation Page



A mobile application mockup for a project creation page. The interface has a purple gradient background. At the top is a status bar with icons for WhatsApp, Instagram, and a menu, along with network (4G+), signal strength, 100% battery, and time (23:48). Below the status bar is a large white cursive title 'Project Creation'. The form consists of four white input fields with rounded corners, each preceded by a label: 'Project Name', 'Project Description', 'Deadline', and 'Requests and requirements'. At the bottom is a solid purple button with the text 'CREATE PROJECT' in white capital letters.

Project Creation

Project Name

Project Description

Deadline

Requests and requirements

CREATE PROJECT

7 Project Plan

	Ad	Süre	Başlat	Bitirme	Önceki	Kaynak Adları
1	Requirements Review	15 günler?	24.09.2018 08:00	08.10.2018 17:00		
2	Reviewing Requirements	15 günler?	24.09.2018 08:00	08.10.2018 17:00		
3	Research and Environment Setup	2 günler?	09.10.2018 08:00	10.10.2018 17:00		
4	Researching Platforms	2 günler?	09.10.2018 08:00	10.10.2018 17:00	Everyone	
5	Environment Setup	2 günler?	09.10.2018 08:00	10.10.2018 17:00	Everyone	
6	Implementation	55 günler?	11.10.2018 08:00	04.12.2018 17:00		
7	Back-End	55 günler?	11.10.2018 08:00	04.12.2018 17:00		Ozan Kinasaka;Umut Barış Öztunç;Mehmet Çalim
8	Database	4 günler?	11.10.2018 08:00	14.10.2018 17:00	5	
9	Server	3 günler?	15.10.2018 08:00	17.10.2018 17:00		
10	Sign Up	1 gün?	18.10.2018 08:00	18.10.2018 17:00	9,8	
11	Login	1 gün?	19.10.2018 08:00	19.10.2018 17:00	10	
12	Project Creation	4 günler?	20.10.2018 08:00	23.10.2018 17:00		
13	Milestone 1	0 günler?	23.10.2018 17:00	23.10.2018 17:00	12	
14	Homepage	7 günler?	23.10.2018 08:00	29.10.2018 17:00		
15	User Profiles	7 günler?	23.10.2018 08:00	29.10.2018 17:00		
16	Customer Milestone	0 günler?	30.10.2018 08:00	30.10.2018 08:00		
17	Search Mechanism	7 günler?	30.10.2018 08:00	05.11.2018 17:00	13	
18	Bidding Mechanism	7 günler?	30.10.2018 08:00	05.11.2018 17:00		
19	Annotation Mechanism	14 günler?	30.10.2018 08:00	12.11.2018 17:00		
20	Milestone 2	0 günler?	12.11.2018 17:00	12.11.2018 17:00	17,18,19	
21	Recommendation Mechanism	7 günler?	13.11.2018 08:00	19.11.2018 17:00		
22	Messaging Mechanism	7 günler?	14.11.2018 08:00	20.11.2018 17:00	20	
23	Payment Mechanism	7 günler?	21.11.2018 08:00	27.11.2018 17:00		
24	Customer Milestone 2	0 günler?	04.12.2018 17:00	04.12.2018 17:00	22,23	
25	Front-End	55 günler?	11.10.2018 08:00	04.12.2018 17:00		Berkay Kozan;Abdurrahim Eskin;Kübra Eryılmaz;Semih Arı;Burak Tepedelen
26	Login	4 günler?	11.10.2018 08:00	14.10.2018 17:00	5	
27	Sign Up	5 günler?	15.10.2018 08:00	19.10.2018 17:00	26	
28	Homepage	4 günler?	20.10.2018 08:00	23.10.2018 17:00	27	
29	User Profiles	4 günler?	20.10.2018 08:00	23.10.2018 17:00		
30	Project Creation	4 günler?	20.10.2018 08:00	23.10.2018 17:00		
31	Milestone 1	0 günler?	23.10.2018 17:00	23.10.2018 17:00	28,29,30	
32	Homepage	7 günler?	23.10.2018 08:00	29.10.2018 17:00		
33	User Profiles	7 günler?	23.10.2018 08:00	29.10.2018 17:00		
34	Customer Milestone	0 günler?	30.10.2018 08:00	30.10.2018 08:00		
35	Search Mechanism	7 günler?	30.10.2018 08:00	05.11.2018 17:00	31	
36	Bidding Mechanism	7 günler?	30.10.2018 08:00	05.11.2018 17:00		
37	Recommendation Mechanism	7 günler?	30.10.2018 08:00	05.11.2018 17:00		
38	Annotation Mechanism	14 günler?	30.10.2018 08:00	12.11.2018 17:00		
39	Milestone 2	0 günler?	12.11.2018 17:00	12.11.2018 17:00	35;36;37;38	
40	Recommendation Mechanism	7 günler?	13.11.2018 08:00	19.11.2018 17:00		
41	Messaging Mechanism	7 günler?	14.11.2018 08:00	20.11.2018 17:00	39	
42	Payment Mechanism	7 günler?	21.11.2018 08:00	27.11.2018 17:00		
43	Customer Milestone 2	0 günler?	04.12.2018 17:00	04.12.2018 17:00	41;42	
44	Test and Code Review	10 günler?	05.12.2018 08:00	14.12.2018 17:00	24;43	
45	Testing Web	10 günler?	05.12.2018 08:00	14.12.2018 17:00		Kübra Eryılmaz;Ozan Kinasaka;Semih Arı;Burak Tepedelen;Umut Barış Öztunç;Mehmet Çalim
46	Testing Mobile	10 günler?	05.12.2018 08:00	14.12.2018 17:00		Berkay Kozan;Abdurrahim Eskin
47	Code Reviews	10 günler?	05.12.2018 08:00	14.12.2018 17:00		Everyone
48	Debug	5 günler?	15.12.2018 08:00	19.12.2018 17:00		
49	Debuging	5 günler?	15.12.2018 08:00	19.12.2018 17:00	44	Everyone
50	Presentation	1 gün?	20.12.2018 08:00	20.12.2018 17:00		
51	Presentation	1 gün?	20.12.2018 08:00	20.12.2018 17:00	48	Everyone
52	Milestone 4	0 günler?	20.12.2018 17:00	20.12.2018 17:00	51	

8 Code Structure and Group Process

Because we have limited time, we can't use pull request. We have a branch named "front-end" for the front-end.

9 Evaluation of Tools and Project Management

9.1 Tools

Up to the present, we used some tools to manage our project.

- **Github** : It was a base for our project. One can see all of our work done in our repository and wiki page. It also helped to our communication via issues part.

- **Git** : We used git for implementation part of the project. It was a super useful tool for collaborate software development.
- **Project Libre**: We used this for creating project plan. However it was not easy to use and it was time consuming.
- **React**: We used react for the front-end. It was hard to learn and we still have some problems about it. However we decided to learn it well and get some experience with it.
- **Material UI**: We also used it for front end. It is a library for advance looking websites.
- **Webstorm**: For front-end we used Webstorm as ide. Its pretty checking functions(ESLint) can be annoying but at the end it is helpful.
- **Django**: We used Django for the backend development with some additional modules like Django REST Framework and Django REST Auth to create API endpoints in our backend server.
- **AWS**: We used AWS for serving our application. EC2 for creating servers, Simple Email Service for using smtp server as mail sender.
- **Nginx**: We used nginx for the serving of static files.

9.2 Project Management

Project management is a hard process, it includes so many factors. We tried to manage that hard process as a group. Our group has 5 new members so it was hard to get to know new peoples and work together.

Our team members background was different from each other. We have 3 people for backend who are experienced. However there was nobody who has prior knowledge about front-end development so at first nobody wanted to get in that team. We didn't know much about front end and android and also contributing to a long project. Some of us took responsibility and tried to make things done however that wouldn't be enough for that milestone.

Our communication was not very good. We tried to make our meetings with as much people as possible but we don't have a time that is accepted from all members. So we were flexible about meeting times. We also used hangout because some of the members were out of the city.

We took so many lessons form this milestone. We hope to work better and communicate better at the next milestone.