

CmpE 451

Customer Milestone Report - 2

InterestHub

Group 6

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1 Executive Summary

For milestone 2, we aimed enhancing the existing application, adding new features to it and also documenting and testing our works. These features were user authentication, templates, template based contents, following users and joining groups, searching and recommendation basically. The list of what we reached so far is as follows:

- Implementing user authentication
- Creating templates and content based on these templates in web
- Enhancing user profiles with adding the following functionality: user panels, followers, followings, timeline showing the user's shared content in groups and users groups in web
- Adding comment and vote functionalities to content in web
- Adding search functionality for user's and groups in web
- Adding recommendation for users and groups in web
- Deployment of the web application and its documentation

Our web application is deployed on 34.209.230.231:8080 and its documentation can be reachable from 34.209.230.231:3000

2 List and Status of Deliverables

2.1 Back-End

| Deliverables | Status |
|-------------------------|------------|
| Authentication | Deployed |
| Recommendation Endpoint | Deployed |
| Search Endpoint | Deployed |
| Follow Users | Deployed |
| Unit Tests | Missing |
| Permissions | Functional |

2.1.1 Evaluation of status of the deliverables

Fundemantal functioanlities for the backend are now supported. A user can create or join a group, take recommendation about other users and groups, search groups and users. For this milestone, we would like to complete the fundamental functionality and unit tests.

We have almost completed the deliverables we have planned except unit tests. On the other hand, there are some permission problems as well

2.2 Front-End

| Deliverables | Status |
|--|-----------------------------|
| Template Creation | Functional |
| Content Creation with templates | Functional |
| Following/Unfollowing a user | Functional |
| Adding tags for users, groups and contents | Functional |
| Joining a group | Functional |
| Profile Page | Functional except editing |
| Sign up and Login Page | Functional |
| Commenting and voting contents | Functional |
| Searching for users and groups | Functional |
| Recommendation for users and groups | Functional |
| Documentation | Deployed |
| Unit Tests | Only a few - mostly missing |

2.2.1 Evaluation of status of the deliverables

We have almost completed deliverables we have planned to provide for the second milestone except adding images to users and groups. Additionally, we have some little issues concerning the design like directing page when a new group is created to be more user friendly. Moreover, although we have tested our application with user tests, we dont test it with unit or integration tests too much. Thus, we are planning to add tests immediately.

2.3 Android

| Deliverables | Status |
|--|--|
| Sign in and Sign up with Auth | Functional |
| Template Creation | Functional |
| Content Creation with Templates | Functional |
| Adding semantic tags for users, groups | Functional |
| Joining and Leaving a group | Functional |
| Searching for users and groups | Functional |
| Like-Dislike and Comment | Functional except Comment button in timeline |
| Creating New Groups, Posting | Functional |
| Group Profile Page | Functional except editing |
| User Profile Page | Partly Functional |
| Follow-Unfollow Other Users | Not yet |
| Recommendation for users and groups | Not yet |
| Documentation | Not yet |

2.3.1 Evaluation of status of the deliverables

Some of the expectations of customer are not met. The reason behind it is mostly the tasks are tightly related to each other. When we didn't complete something, the convoy effect occurs. This was the case for profile page and follow - unfollow feature. Other than that we will be conducting user tests and unit tests and documenting it until the next milestone. Bugs will be solved and recommendation and follow-unfollow feature will be added. When we complete those there are only few enhancements and event feature left. We are strongly believe that we will be performing better and present a better demo in the next milestone.

3 Summary of coding work done

3.1 Back-End

| | |
|---------------------|---|
| Yusuf Hakan Kalayci | Recommendation and search endpoints Permission and authorization |
| Onur Orhan | Commenting and voting Unit test for components |
| Alperen Yakut | Admin panel for components Unit test for contents |

3.2 Front-End

| | |
|----------------|---|
| Gökçe Uludoğan | Enhanced user profile page with new panels Added following/unfollowing user and joining group functionalities Added grunt-ngdocs and documentation Added testing frameworks Karma and Jasmine Updated viewing contents based on templates Changed creation pages to modals Added recommendation Added tag service and tags to users and groups |
| Burak Tomruk | User authentication was implemented Updated routes for session control User registration was implemented including interest tags. Search by Users added into navbar search Moved listing all groups to new page with Search by Group functionality Updated timeline to list authenticated user's groups. |
| Yusufcan Manav | Added functionality for template creation Added custom content creation Added tags to the content creation Added image upload to the content creation Added images and tags to the content viewing Updated fetching tags |

3.3 Android

| | |
|----------------|---|
| Barış Uçaktürk | Creating other user profile Adding thumbs up/down feature to post (Both edited later) |
| Emre Eren | Comment system Content activity Tagging system(with wikidata) for both group creation and registration Structure of contents and showing different content in same layout Search page |
| Merve Cerit | Profile Page design and implementation Issue Solving - please see issues pages and the commits |

4 Updates on Requirements

There are no updates on requirements for this milestone. Please see previous reports for an examination of requirements.

5 Updates on Design

5.1 Back-End

Until first milestone built-in serializers and views were enough to provide desired functionality. However, in order to customize the backend we override the serializers and views. This is the main update on backend.

On the other hand, to create custom templates and post which has one of these templates, we updated the class diagram that is related with content types and contents. We have components, contents and content-types. Content types stores has and ordered list inside and it stores the names of fields and their types as component type. Each content has a content type and components which are listed in the order of corresponding content type. Components and contents are linked with one-to-one relation.

5.2 Front-End

Sign-up

Connect with people based on your interests!

[Sign in](#) [Sign up](#)

First Name

Last Name

Birth Date

Gender

Email

Interests:

#human #swimming #chess

Add tag

Username Password

Sign up

Timeline

Interest Hub

Search Go

Timeline Profile Groups Logout

Groups

Cryptocurrency Traders Sports Swimming

Create Group

mmervecerit shared on BJK 02/12/2017 12:39

Lokasyon: Bebek
Urun: Anahatarlik
Indirim: 20.00

Write a comment...

hakansirin shared on Swimming 30/11/2017 13:38

venue on Bosphorus map: 0 0

Write a comment...

hakansirin shared on Swimming 30/11/2017 13:21

Brand: Speedo
Price: 20.00
Type: Sprinting
Image

Tags: #goggles #swimming 0 0

Upcoming Events 02-December-2017

Suggested Groups

View All

Suggested Users

View All

Profile timeline

Interest Hub

Search Go

Timeline Profile Groups Logout

Hakan Şirin

About Me about

Timeline About Follower Following

hakansirin shared on Swimming 2017-11-30

Brand: Speedo
Price: 20.00
Type: Sprinting
Image

hakansirin 30/11/2017 13:22

ooo cool

Groups

Sports Swimming Cryptocurrency Traders

hakansirin shared on Swimming 2017-11-30

venue on Bosphorus map: 0 0

Edit Profile

Interest Hub

Search Go

Timeline Profile Groups Logout



Hakan Sirin

About Me

about

Basic Information

First Name: Hakan
Last Name: Sirin
Birthdate: 1995-10-23
Gender: man
Location:

Interests

#human swimming #basketball #chess
#bitcoin

Contact

Email: hakansirin@gmail.com
Phone: contacts

Edit Profile

Profile followings

Interest Hub

Search Go

Timeline Profile Groups Logout



Hakan Sirin

About Me

about



gokceuludogan
Follows you

Following



Create Group

nd

Up

02

Sug

Vi

Sug

Vi

V

Price: 20.00

Type: Sprinting

Create Group

Name:

Description:

Privacy: Public Private

Logo:

Choose File No file chosen

Cover Photo:

Choose File No file chosen

Tags:

Add tag

Group Timeline

Interest Hub

Search Go

Timeline Profile Groups Logout

Swimming

Hey swimmers come here.

Join

Groups

Cryptocurrency
Sports
Swimming

Create Group

cover

Timeline About

venue on map

Tags:

New Template Post

02-December-2017

Upcoming Events

Group Members

View All Members

hakansirin 2017-11-30

Brand: Speedo

Price: 20.00

Type: Sprinting

Image

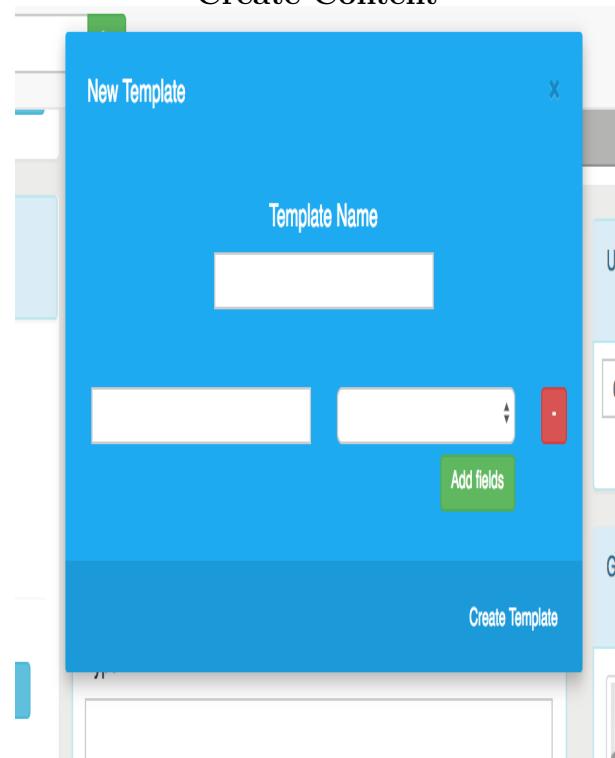
Create Content

New Template

Template Name

Add fields

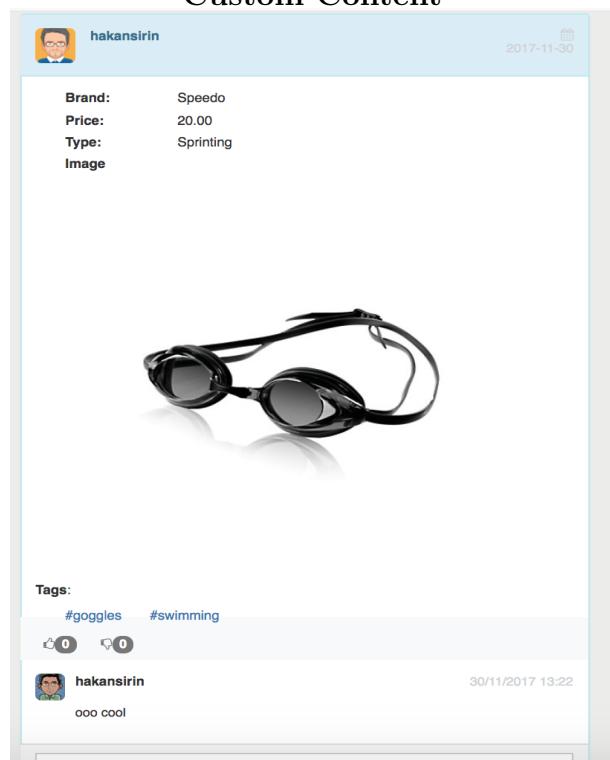
Create Template



Custom Content

hakansirin 2017-11-30

Brand: Speedo
Price: 20.00
Type: Sprinting
Image



Search Group

The screenshot shows the InterestHub application's search interface for groups. At the top, there is a navigation bar with links for Timeline, Profile, Groups, and Logout. On the left, a sidebar titled "Groups" lists categories: Cryptocurrency Traders, Sports, and Swimming, each with a "Create Group" button. The main content area has a search bar with the letter "C" entered, a "No Results Found" message, and a "Search" button. Below this, sections for "All Groups" (listing Chess and Cryptocurrency Traders), "Suggested Groups" (with a placeholder icon and "View All" button), and "Suggested Users" (showing three user icons) are displayed.

InterestHub

Timeline Profile Groups Logout

Groups

Cryptocurrency Traders

Sports

Swimming

Create Group

C

No Results Found

All Groups

Chess

Cryptocurrency Traders

Suggested Groups

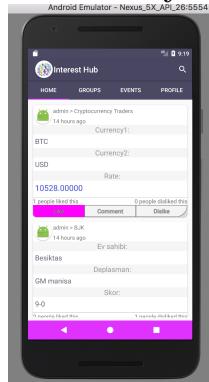
View All

Suggested Users

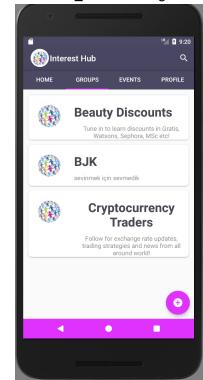
5.3 Android

Here is the new look and feel of our Android App:

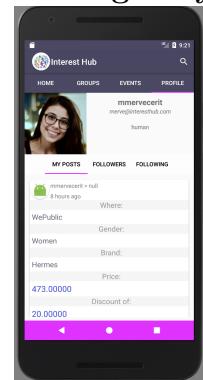
Content Layout



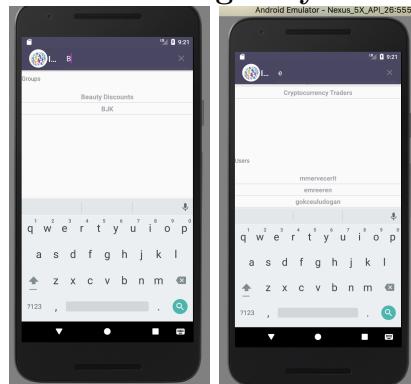
Groups Layout



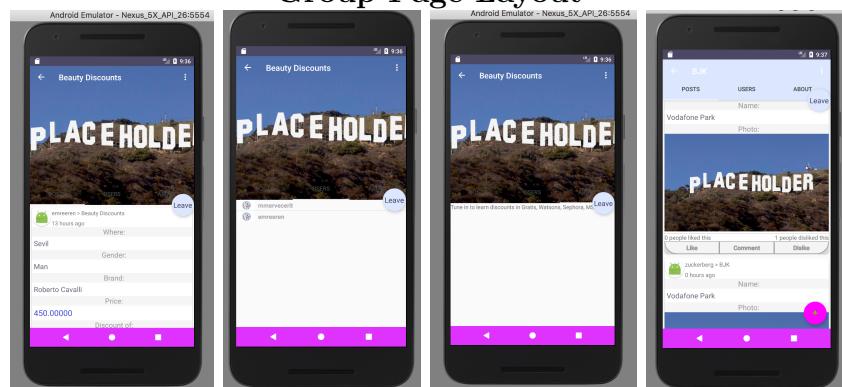
Profile Page Layout



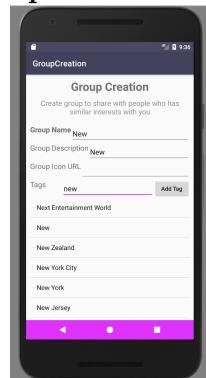
Search Page Layout



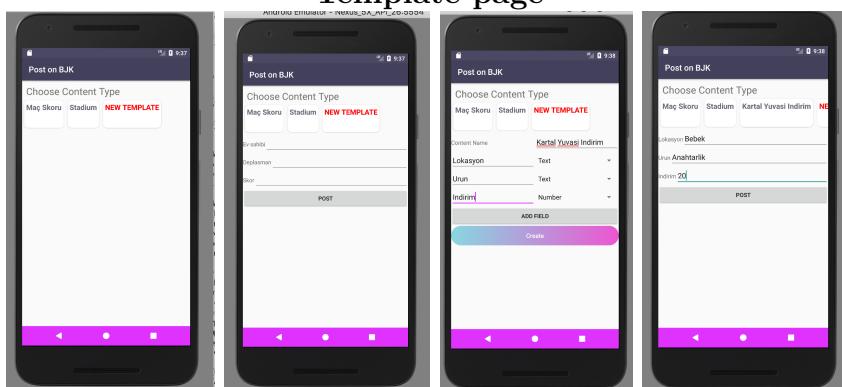
Group Page Layout



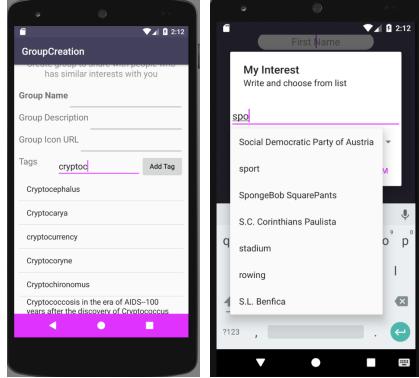
Group Creation page



Template page



Tag system



6 Project Plan

6.1 Back-End

Backend Plan

| Task | Duration | Start | Finish |
|---------------------|----------|------------|------------|
| Whole Backend | 52d | 10/13/2017 | 12/25/2017 |
| Class Diagram | 7d | 10/13/2017 | 10/20/2017 |
| User API | 20d | 10/24/2017 | 11/20/2017 |
| Group API | 20d | 10/24/2017 | 11/20/2017 |
| Content API | 20d | 10/24/2017 | 11/20/2017 |
| Custom Content API | 20d | 10/24/2017 | 11/20/2017 |
| Search API | 20d | 11/21/2017 | 12/18/2017 |
| Recommendations API | 20d | 11/21/2017 | 12/18/2017 |
| Annotations API | 20d | 11/21/2017 | 12/18/2017 |

6.2 Front-End

| Task | Duration | Start | Finish |
|---------------------|------------|------------|----------------------------------|
| Nonfunctional pages | 5d | 10/13/2017 | 10/26/2017 |
| Group Creation | 7d | 10/26/2017 | 11/2/2017 |
| Timeline Creation | 7d | 10/26/2017 | 11/2/2017 |
| Authentication | 7d | 10/26/2017 | 11/2/2017 |
| Milestone 1 | 11/2/2017 | | |
| Tagging | 7d | 11/3/2017 | 11/10/2017 |
| Template Creation | 21d | 11/3/2017 | 11/24/2017 |
| Profile Creation | 14d | 11/3/2017 | 11/17/2017 |
| Content Creation | 21d | 11/3/2017 | 11/24/2017 |
| Milestone 2 | 11/30/2017 | | |
| Admin Control | 21d | 11/24/2017 | 12/15/2017 |
| Search | 21d | 11/24/2017 | 12/15/2017 |
| Recommendation | 21d | 11/24/2017 | 12/15/2017 |
| Testing | 21d | 11/24/2017 | 12/15/2017 |
| Annotation | 21d | 11/24/2017 | 12/15/2017 |
| Milestone 3 | 12/20/2017 | | <input type="button" value="▼"/> |

6.3 Android

 *Android Plan*

| Task | Duration | Start | Finish |
|--|------------|------------|------------|
| Android | 49d | 10/13/2017 | 12/19/2017 |
| Research on Android | 10d | 10/13/2017 | 10/23/2017 |
| Initial research projects | 10d | 10/13/2017 | 11/23/2017 |
| User Page Implementation | 2d | 10/24/2017 | 10/26/2017 |
| Login and Signup Page Implementation | 1d | 10/24/2017 | 10/25/2017 |
| Splash Page Implementation | 1d | 10/24/2017 | 11/25/2017 |
| Group Page Implementation | 1d | 10/25/2017 | 10/26/2017 |
| Homepage Implementation | 2d | 10/26/2017 | 10/28/2017 |
| Group creation page | 1d | 11/1/2017 | 11/2/2017 |
| Adding functionalities | 8d | 10/24/2017 | 11/2/2017 |
| First Customer Milestone | 11/2/2017 | | |
| Profile Page Implementation | 28d | 11/2/2017 | 11/30/2017 |
| Group Profile Page Implementation | 28d | 11/2/2017 | 11/30/2017 |
| Search Feature | 28d | 11/2/2017 | 11/30/2017 |
| Semantic Tags | 28d | 11/2/2017 | 11/30/2017 |
| Second Customer Milestone | 11/30/2017 | | |
| Follow – Unfollow Feature with Other Users Profile | 14d | 11/29/2017 | 12/7/2017 |
| Bugs in Profile Page, Group Page and Timeline | 14d | 12/5/2017 | 12/19/2017 |
| Design enhancements | 14d | 12/5/2017 | 12/19/2017 |
| Recommendation | 14d | 12/5/2017 | 12/19/2017 |
| Annotation | 7d | 12/12/2017 | 12/19/2017 |
| Testing | 45d | 11/2/2017 | 12/19/2017 |



7 Code Structure

7.1 Back-End

Basically, we are using django and django-rest frameworks and when we are implementing constructing architecture according to suggested structure for django and django-rest.

We have applications that separate the groups of models and helper methods. In each application we have related models, views and serializers. Serializers provides us to convert models into jsons and jsons into model objects. Views are basically the endpoints of our api. For some parts of the project we used the built-in views from django-rest which provides GET/POST/PUT/DELETE requests for specified model and serializer.

For each application we have models, serializers and views files and these files contains the mentioned methods and classes.

7.2 Front-End

As the front-end group after the first milestone we talked about what we have done so far, how to enhance existing features and how to add new features to structure. Since we are developing the application as a group and the project was a big one our project structure should have least conflicts as possible in the development, because when we are using branches in the github the more we branch and have conflicts the more we would have problems so we have used modules to code our application and added new modules for new features like search, recommendation. We implemented modules for each functionality to decrease the conflict of changes in the web development to work more efficiently throughout the project. We generally work on different branches for each functionality then we send pull requests using the template to make it easy to understand the content of request and expected reviews from the team for merging the branches to the master branch after solving merge conflicts. Since we worked module by module there was mostly no conflicts when merging. In case of conflict, reviews have been requested before merging.

7.3 Android

Firstly, we discussed what we have learned about difficulties after first milestone and planned to implement our code according to these lessons. However, we faced with conflicts in changes due to .xml files and their paths.

We got attention about using fragments rather than activities. Because our code structure is based on usage of fragments. For example, in Group activity, in one class we used 3 different fragments in order to show group posts, group users, and about page. This structure provides efficiency and since the fragments connected to same activity, it also provides easy information passing.

We tried to use recent systems and layouts provided by android such as Nested ScrollView and CollapsingBarLayouts to increase user experience.

In this milestone with experience that we extracted from previous milestone and project, we tried to write code more carefully because, in this milestone there were much more complicated jobs we did not want to waste time by writing bad code. We tested all functionalities with different scenarios, however we could not write unit tests.

8 Evaluation of the Tools & Managing the Project

8.1 Github

Since it is a software project, github and git system is vital. We tried to use all functionality of github, which make easier to develop as team, as much as possible. With issue management system we not only tracked our jobs but also requested some feature or improvements from other people. We also labeled our issues and pull request as much as possible for clarity. We designed our application according to the requirements, mock-ups, use diagrams in the GitHub wiki page. As Android team when we wanted to push an improvement or new feature to the project. We firstly pushed to our local forked repository. Then we created new pull request from original repository. At this point everyone can see differences and can read report of pull request. After some people reviewed, generally somebody else merged with master branch in original repository.

8.2 Whatsapp

We are communicating informally on Whatsapp, decision on meeting time and location, and some high-priority tasks are the main topics of our Whatsapp group. Android team's communication is mostly conducted on Whatsapp.

8.3 Slack

Slack is our second most used communication tool. We have a channel on slack and we created different rooms with different subjects. In this platform we discussed about general project with whole team or we discussed design of Android project with people who works with Android only. We also shared useful informations, links with each other .

8.4 Django

In order to create backend application, we used django with django-rest module. Django framework is easy to use to develop backend application. It provides many ease to store, get and show data with many desired relations. With the help of django-rest module, one can easily create a serializer and viewset to provide get/post/put/delete functionality for any model.

Although django has many convenience to develop backend application, its solid structure may prevent users to get used to. Due to the barrier of learning, developers can not start to develop in an easy way.

8.5 AngularJS

We used AngularJS in order to create frontend application. Angular is a structural web application framework that provides building dynamic web apps. We decided to use first version of Angular because of its stability and reliability. It also provides services that allows us to abstract API calls into reusable services which is very useful in our project for backend connection.

8.6 Bootstrap

Bootstrap is used to style the main structure of our front end application since its commonly used and there are native AngularJS directives based on Bootstraps markup.

8.7 npm

For dependencies, we have used npm, a package manager, since its easy to use and manages dependency conflicts intelligently.

8.8 Grunt

For creating documentation, Grunt which is a JavaScript Task Runner and grunt ng-docs, a grunt plugin, are used since after setting it up writing and creating documentation is simple.

8.9 Karma and Jasmine

For testing the frontend application, Karma and Jasmine are chosen since these are recommended testing frameworks in AngularJS documentation.