Project topic

Météore: Community makes a small action BIG

Group： 4
Members：

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Motivation and Goal

In people's life, we often give up our goals due to lots of reasons. Most are lack of motivation to keep a habit and feedback after completing tasks. Moreover, when we wish to accomplish huge common goal, we often give up since we couldn't see the result instantly. So, we hope to build up a platform to quantify the efforts to make users feel their work do make change. Involved in social network also push users to move forward and make it more possible for people to reach their goal.

Concept of design

Mission：

1. Personal mission is visible to everyone, so other users may encourage the owner. Second, there is a comment zone in every mission, so the participants of the mission can provide advice to the owner. These function will motivate the user to complete the mission.
2. Group mission can be joined by every users and aggregate more people to finish the huge goal together. People can view their own contribution to the mission. Also, Group mission have comments zone and like function for every participant to discuss and show the popularity.
3. Mission List record every finished mission of user to trace own history record.
4. History of mission list records the missions that user finished and can give user a pattern what he have done.

Outer space system：

1. **Comet**
    a. We implement each public mission as a comet to add WISH element into the goal and also attract more users to join the public mission.
    b. Each public mission has its own period flying around the outer space. Then these missions randomly fly into user's windows. These feature increases the probability of mission being seen by different user.
2. **Star**
    a. We represent a user by a star. Users can upgrade their own star by completing different missions and can link between completing missions and rewards.
    b. Creating anonymous feature to users. Other users cannot view the joint mission list of a certain user unless he/she check all missions one by one. We believe that anonymous feature can encourage users join more different challenge.

Technical Details

FB API

1. We use facebook login function instead of our own login system to simplify login procedure including skipping the naming and upload profile picture. Furthermore, we use facebook unique user id to construct a new user in database which can make us manage user's information much easier.
2. We embed facebook comment function in the mission page to give user a familiar interface when discussing.

Front End

1. **Login Page**
    a. Carousel of Bootstrap
    We play the screenshot in the login page by well-implement Carousel function to give overall sense to users. Also, we add some user hints on the login page which shorten the time of learning how to access our webpage.
    b. Facebook Login Function
2. **Main Page**
    a. outer space system
    We use javascript to implement the star, comet, planet on the mainpage. Everything on the main page is drawn in a canvas, so we just have to refresh it periodically.
    b. Screen Control and Mouse Handler
    Since we have to handle a lot of mouse events such as dragging and zooming, we add event listener to the canvas and determine whether the user clicked the corresponding area or not.
    c. Drawing a comet
    We use createLinearGradient function to draw a comet, since our background color is black, we just have to make a gradient between black and white and record the previous velocity of it to draw a comet.
3. **Personal Page & Mission List**
    a. selector
    Missions are categorized and easy to be managed or viewed by users.
    b. Pager
    We create contents for all missions which meet the criteria. However, only the ones which belong to this page are shown.
    c. Details of user information
    User's name and profile picture are displayed in the page header. We show the detail of user's star after the star is clicked.
4. **Add a mission & Show a mission**
    a. detail of mission
    We access all of the missions' data all we need from backend using html for loop and javascript. Then, use javascript to modify the variables in html. We use modal to show the detail of mission. Complete mission ,like and join or quit button send data to backend.
    b. add mission
    Force user to fill in all the details of missions before submit new mission. This function is implemented by mouseEnter and

mouseLeave function in JavaScript and jQuery. And this can avoid submitting wrong data to backend that might cause the crash. We use modal of bootstrap to hide/show the form.

5. About Page

a. codepen
We modified the template of codepen to implement the animation effect in the background of about page.
(http://codepen.io/JustusFT/pen/ENLZGJ)

Back End

1. Django

a. Using python-based Django to implement the back end of our website. We started from the ground, after a lot of times and efforts we implement this fine database-front end interface.
   i. Django objects: we set up Post module as our mission and Profile module which extends user attributes as our user. And an additional Membership module to deal with relations between Post and Profile.
   ii. Django sets up a build-in SQL database for us so by building the website, we also learn a lot about how to access the database.
   iii. we use some Many-to-Many relations to maintain the relationships between our user and mission, which makes our database easy to maintain

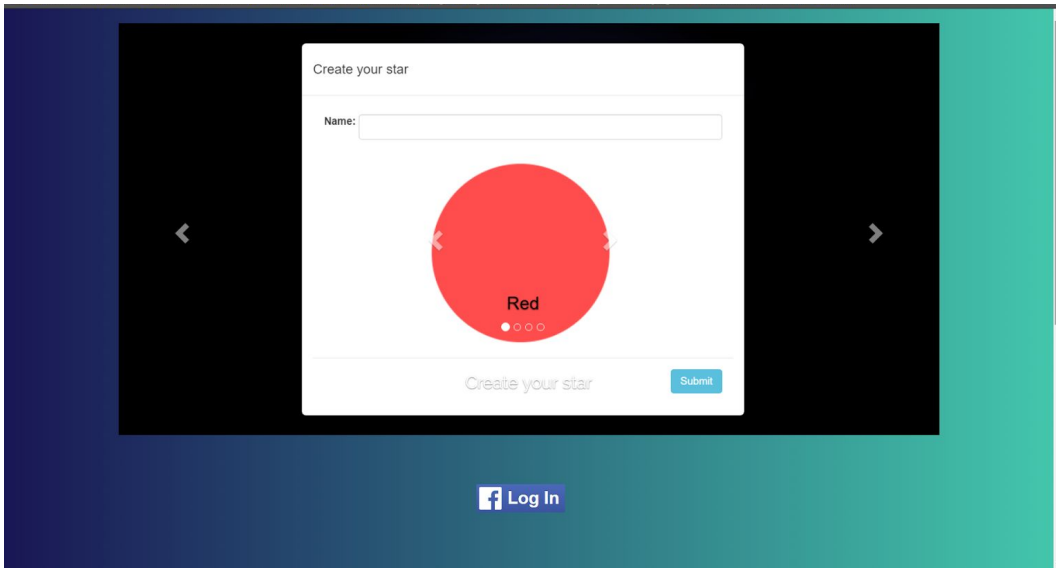
Layouts

Online PIXLR Editor

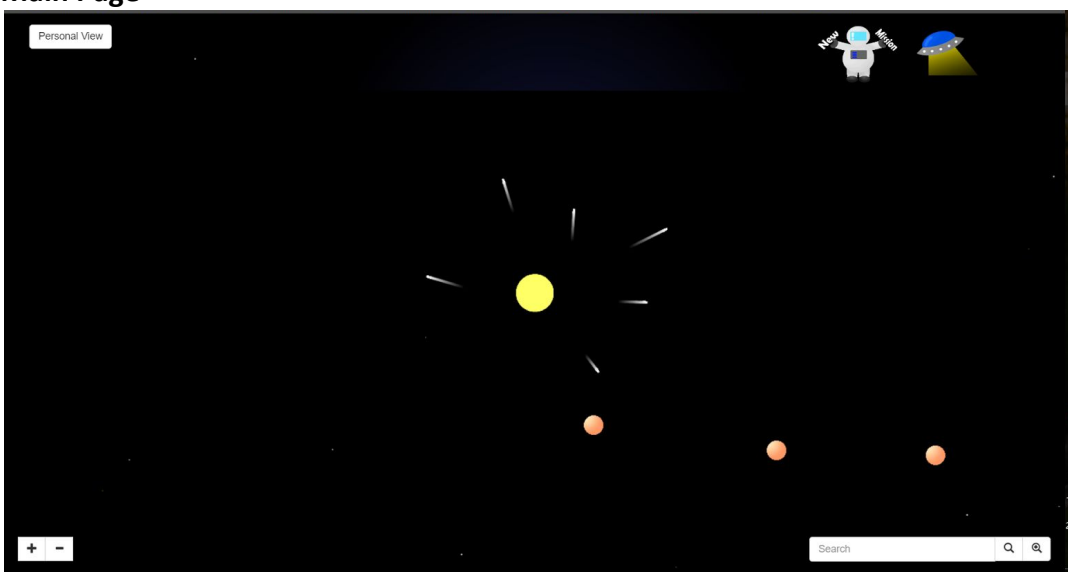
all the icon and button are designed by ourselves. we drew them on Online PIXLR Editor. this makes our website original from the deepest back end to our user friendly GUI.

Implementation：

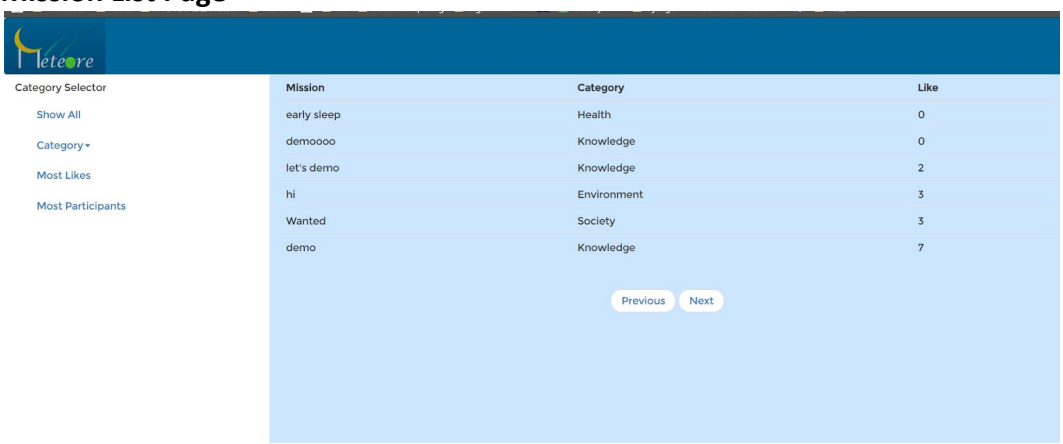
Login Page



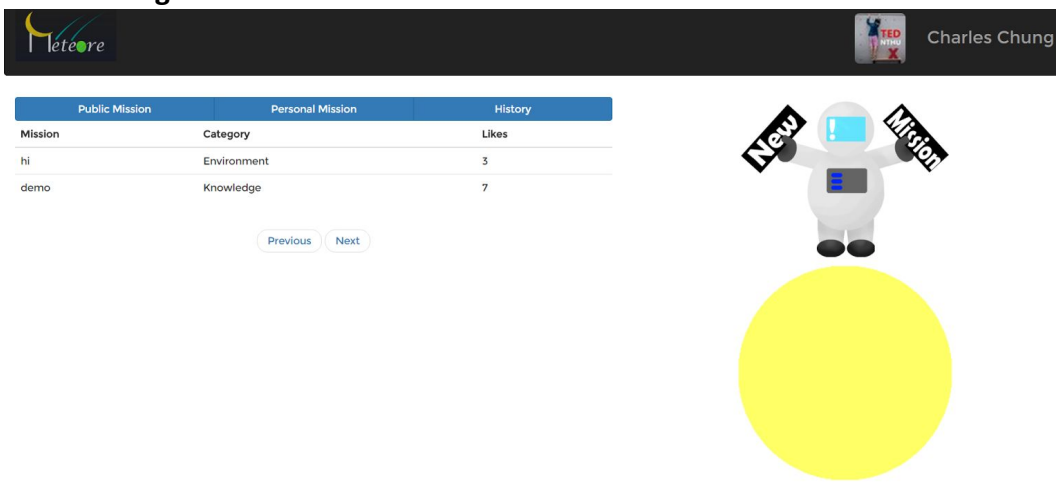
Main Page



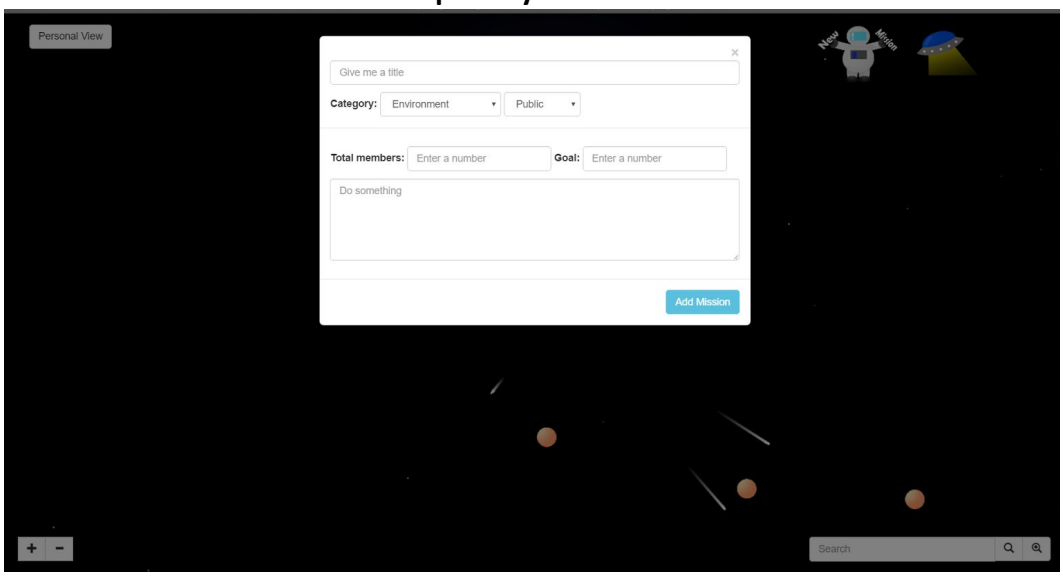
Mission List Page



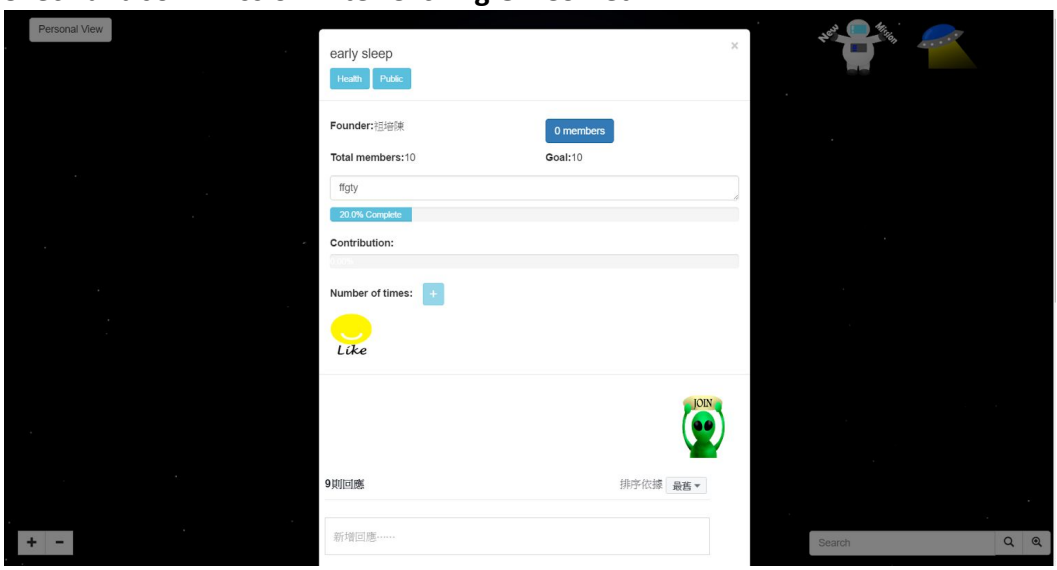
Personal Page



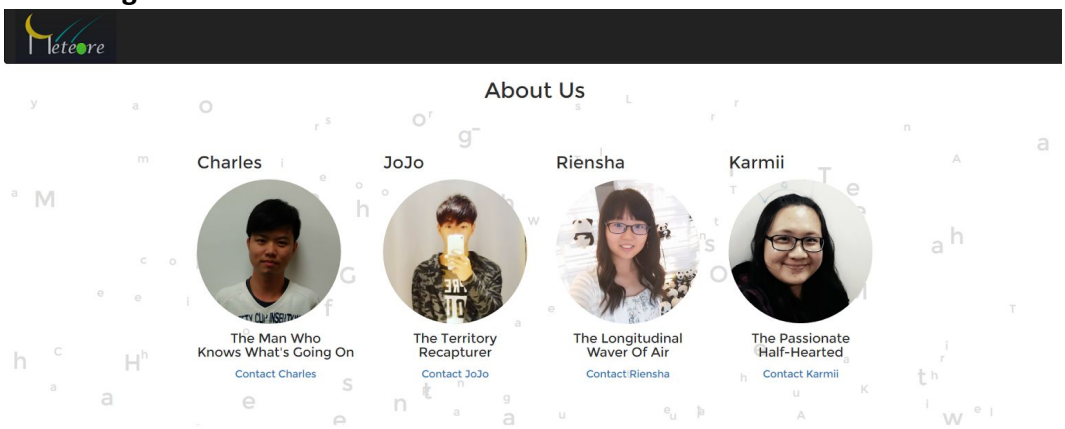
Add New Mission To The Outer Space System



Check and Join Mission After Clicking On Comet



About Page



Difficulty：

1. deal with screen control in the main page
2. to place every element on the webpage on the right position, design the look of the website, deal with the situation of resizing the page
3. combine the frontend work and backend work

Team work：

鍾祐霖	25%	Building up the Django backend framework Interface between frontend and backend
陳祖培	25%	Construct the main page and the outer space system Search function of the main page Mouse Handler of the main page
劉凌君	25%	Functions of adding missions and viewing missions Designing and beautifying the page The whole background design of website Make the carousel of the login page
吳奕萱	25%	Make the mission lists and personal page Make About Page and Login Page Producing icons and images we need

Evaluation：

a. Easy to learn

Totally, our website is very easy to learn, however, a tutorial for new users is expected to add in the future.

b. Efficient to use

People will complete their mission everywhere, but our platform only support website version. It will cause inconvenience for users to use. Adding app version will solve this problem.

c. Easy to remember

We add some elements to impress users. For example, having own star is expected to attract users to view the platform more often.

d. Few errors

In this version, we test and solve most errors we have, but there still exist few unsolvable errors.

e. Subjectively pleasing

In the poster session, the number of students attracted by our work can be used to evaluate this property, however, we still have something to improve.

Future Work：

1. Add more functions to support interaction among users or communication among every individual star.
2. Beautify the user interface
3. Add app including Android and iOS versions
4. Combine more functions of FB like using messenger on our website and sharing their wish on FB.
5. Post the hottest mission on the FB fan page
6. Comets of same category will stay in the same place
7. Publish our website

Code:

Google Drive url:
https://drive.google.com/drive/folders/0BxACmSpBV4GwUWtzeE9RUmVsX2M?usp=sharing