Project Proposal: Whiteboard

26 October 2014

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Project Description

Businesses constantly require newer technologies, in order to make their communications and interactions as seamless as possible. Our team came up with a web application that will help business interactions. This application implements a digital whiteboard, on this whiteboard users can draw and visualize their ideas, plans and designs. A user can create his/her own project and then invite his/her colleagues to this project. Each member of a project can make real time changes on the whiteboard and they will be updated on all the members' whiteboards in real time. Whiteboards like the one described are available on the Internet, however, they are not as seamless and smooth as they should be. They cannot be saved and continued on in another session, and they do not have multiple whiteboards for a single project. The team will address these issues by making a whiteboard web application that is simple to use for business purposes.

Project Implementation

This section will include the team members (and their tasks), web technologies used and the list of features.

Team members:

Depending on the phase and the tasks that the team has, they will be dividing the work as follows:

Maher Khan: Will be doing both front and back end development, will be switching back and forth as needed.

Maryam Al-Fehani: Will be doing both front and back end development, will be switching back and forth as needed.

List of web technologies and frameworks:

- Django
- HTML5
- Javascript
- JQuery
- WebRTC

List of features:

Priority A:

User that is not logged in:

- Sign-up

Logged in users:

- Log in
- Log out
- Drawing
- Updated automatically for all viewers
- Share drawing with others

Priority B:

Logged in users:

- Show them old or new projects when signing in
- Highlighter feature: allows user to highlight specific part of the drawing to get others to focus on it
- Redraw slowly: if a user joins a drawing session but he/she is late, this feature will redraw what happened so that this user can understand what has happened so far.

Priority C:

User that is not logged in:

- Able to draw on a temporary canvas
- Share the drawing
- Updated automatically for all viewers

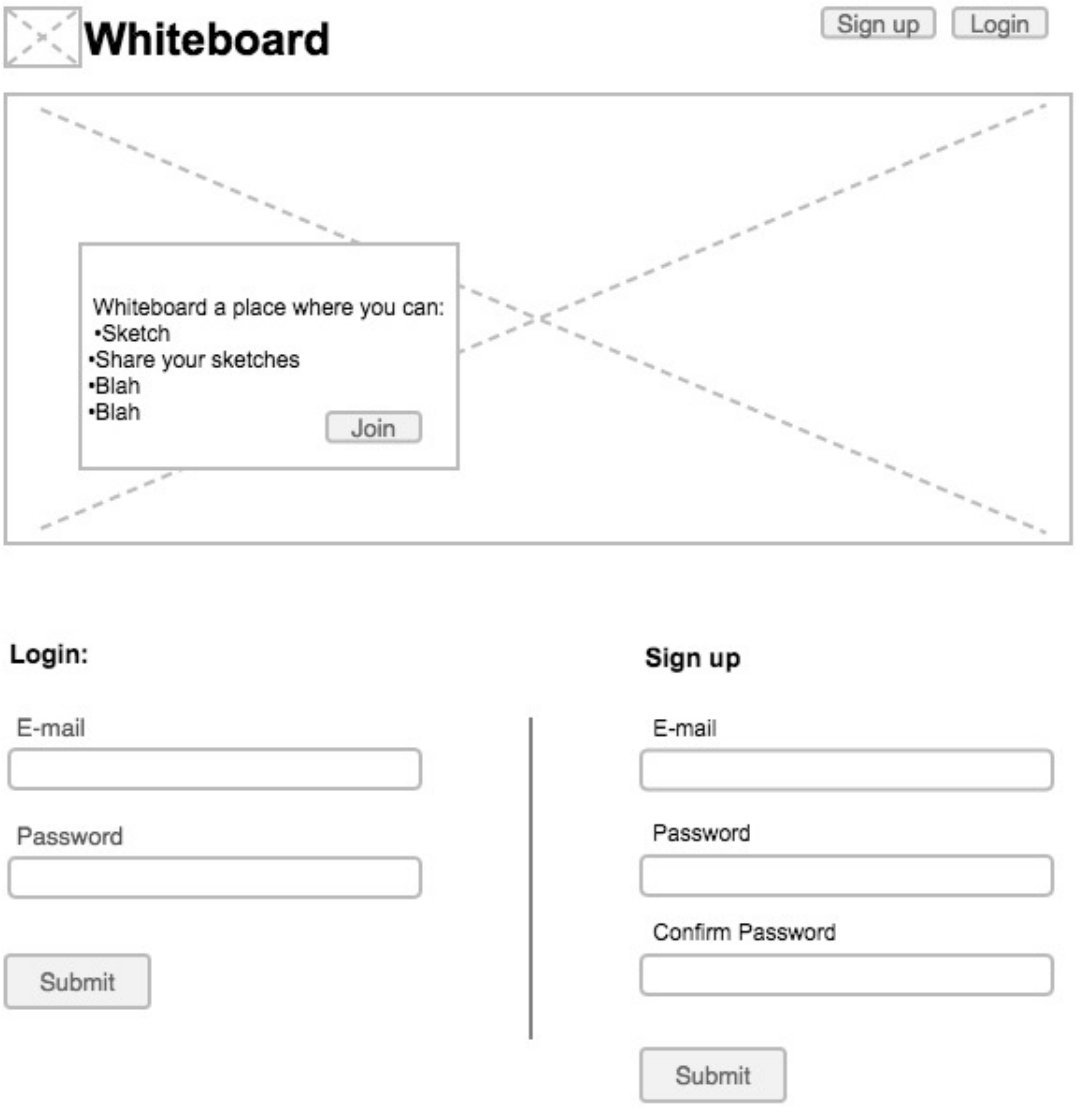
All users:

- Share website on Facebook and Twitter

User Interface

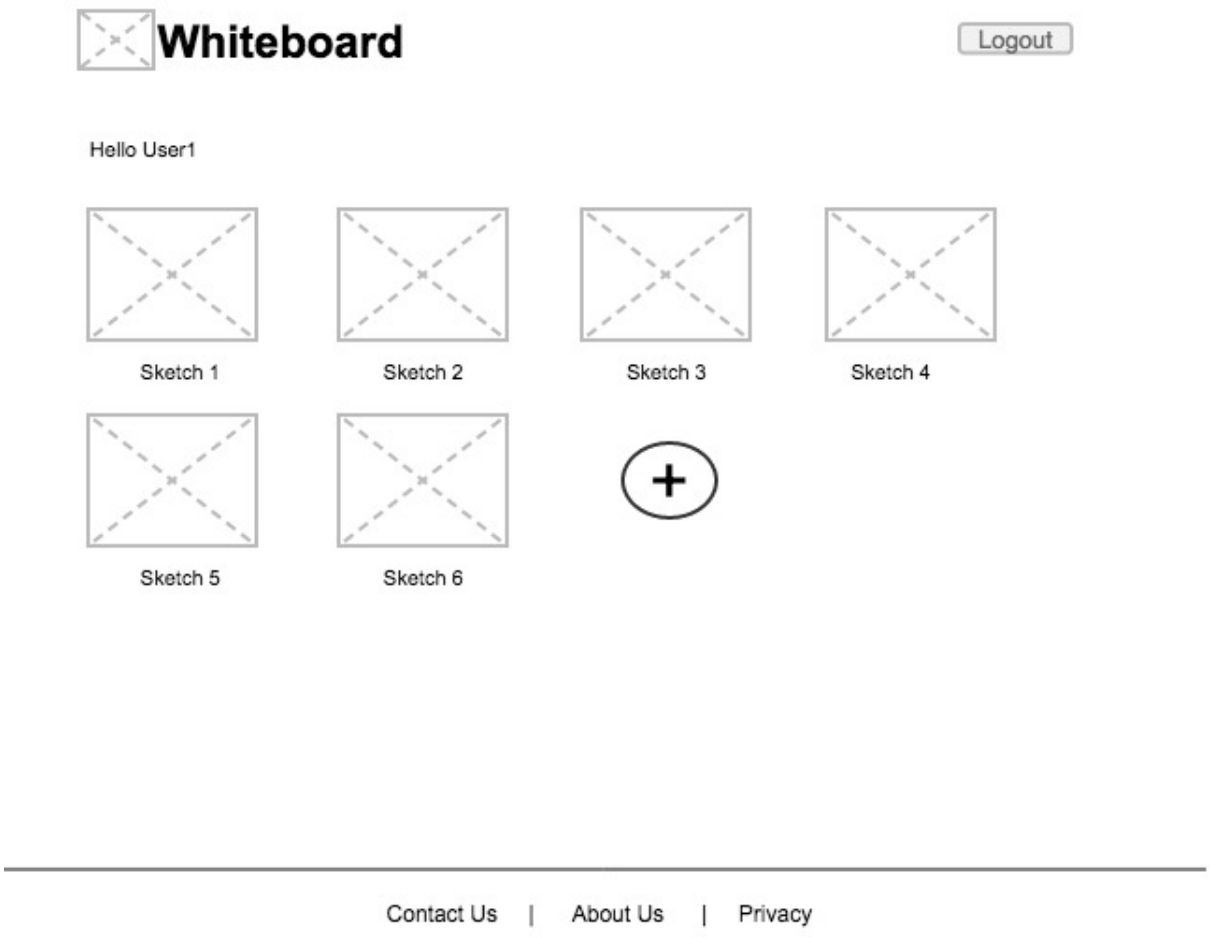
This section will include wireframes that show the website's flow and it will also include the sitemap.

Homepage:



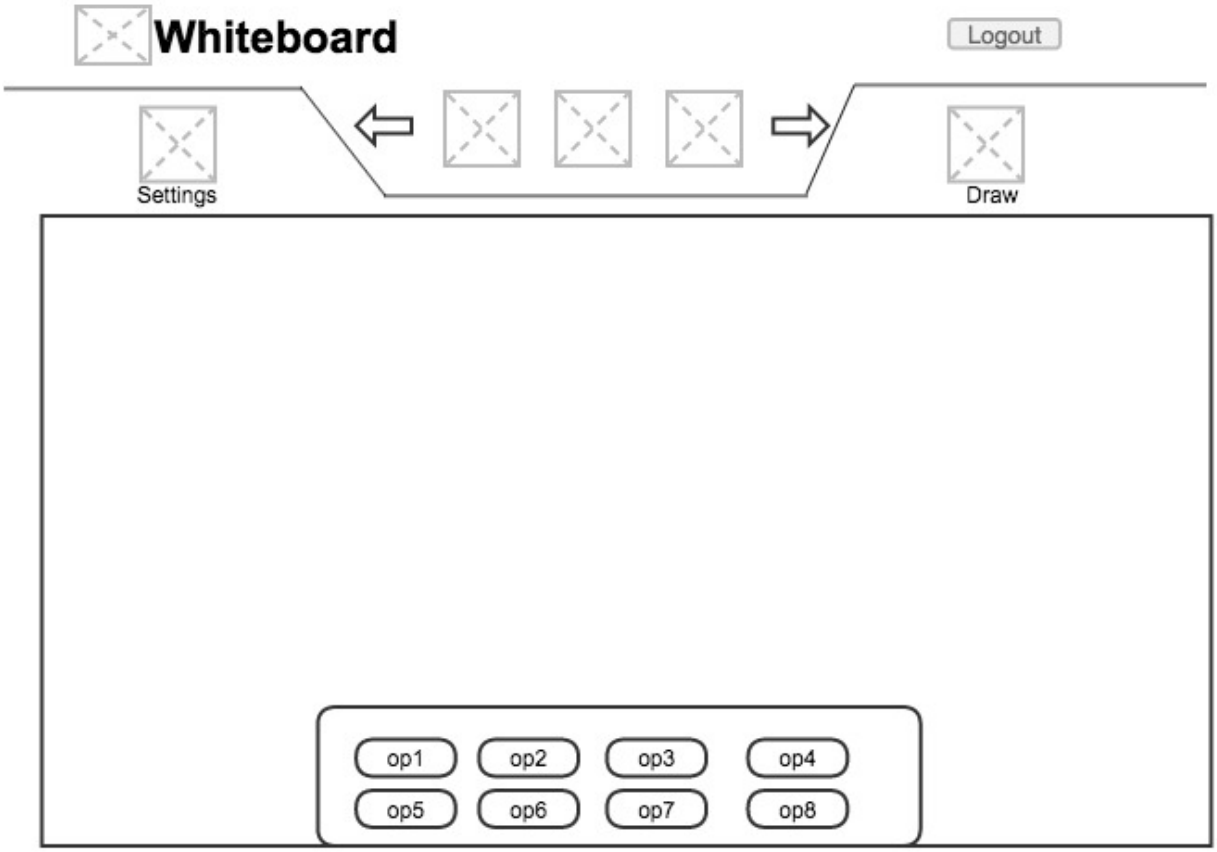
The wireframe above is the main page before logging, it shows you options to sign up and log in.

Landing page:



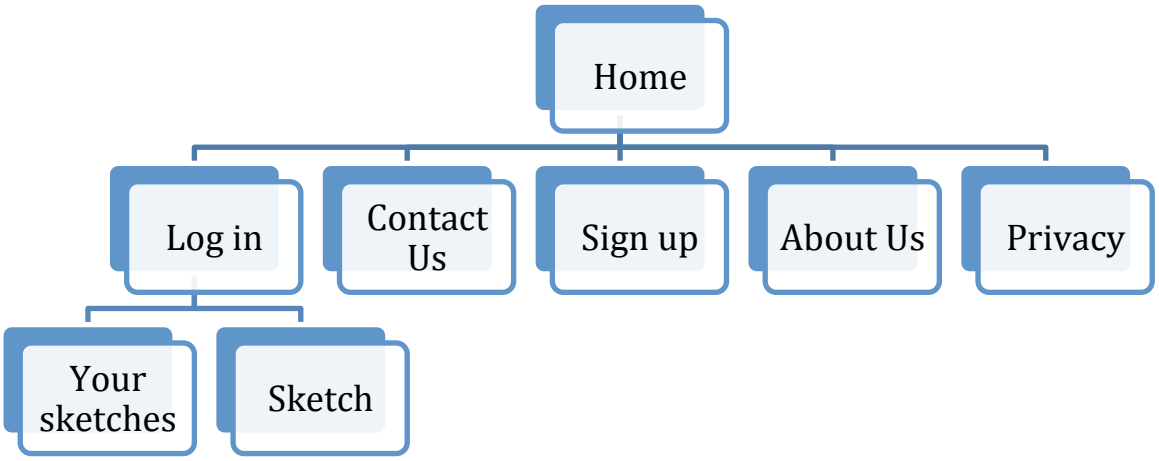
This is the page that user lands on after they have signed in. This shows them their current projects and allows them to create new projects.

Sketch page:



This is the page that user will be sketching on. The top middle part that shows three images is actually the pages that are being sketched on. The images labeled Settings and Draw on the right and left sides of the page navigation bar give the users more options. Clicking on settings will take the user back to the landing page, while clicking on draw shows and hides the drawing options shown in the bottom of the wireframe.

Sitemap:


Home
Log in
Contact Us
Sign up
About Us
Privacy
Your sketches
Sketch

Data Structure

This is the data structure that the team has come up with so far. A user will be needed to login and create a sketch. After logging in, users will be able to manage their sketching “projects” and access them. According to what was just mentioned, these are the Data models.

User

The user model will have the necessary user information and it will connect the user to his/her projects. This model will contain data such as user’s name, e-mail, password and it will connect the user to the other data models using foreign keys.

Project

The project model will be keeping all the projects that users have created. This model will be used to list users’ projects.

Sketch

The sketch model will have each sketch with its drawings saved. This model will be connected to the user’s projects.

URLs Map

index/
The homepage of the web app. This page will contain basic instructions and a sign in form.
Return type: html;

signup/
This page will allow a new user to signup to the web app.
Return type: html; data accessed: User;

about/
This page will contain information about the web app as well as the developers' and also contact information.
Return type: html;

projectpage/
This is the page where the user will be able to choose an existing project or a new project to work on.
Return type: html; Data accessed: Project;

sketch/
This is an individual project. The page will contain a whiteboard (canvas) on which users will be able to draw stuff simultaneously.
Return type: html; Data accessed: Project, Sketch;

saveCanvas/
Through this url, we will save the drawing data in the server
Return type: None; Data accessed: Project, Sketch;

loadCanvas/
Through this url, we will load previously saved drawing data back to the client side's whiteboard.
Return type: json; Data accessed: Project, Sketch;

login/
Through this url, users can login tot he web app to access the features of the web app
Return type: html; Data accessed: User, Project;

logout/
Through this url, users will be able to logout from the web app.
Return type: html;

existingProject/
Through this url, users will be able to load an existing project to work on.

Return type: html/json; Data accessed: User, Project;

newProject/
Through this url, users will be able to create a new project while inviting other users to join in.
Return type: html/json; Data accessed: User, Project;