

# GSoC 2013: Project OpenHome : Homepage Themes

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## Project Proposal

- How does this project fit into CC's initiatives?

This project extends upon the project idea "**Homepage Themes**" in the ideas list of Creative Commons' Google Summer Of Code(2013) projects. This project is a part of the **OpenHome** project which CC has recently undertaken to provide different types of users a way to create a personalized website where in data belonging to the user from different channels could be accumulated, licensed, showcased, and kept track of. The project will primarily serve the purpose of developing a highly user friendly utility maximizing front-end for the OpenHome project. The goal of optimizing the project and making it utility maximizing would be primarily achieved by rapid prototyping and iterating based on the feedback.

- Project goals, Technology and Task Breakdown.

### 0 - Project Goals :

As mentioned in the project goals on the ideas page, the project aims at creating templates for OpenHome sites of primarily two different kinds of users :-

- **University professors** [Showcasing written papers and relevant work]
- **Amateur artists** [Showcasing works and linking to other profiles]

The project would involve making these two types of templates. Each template would support following 3 views, as mentioned in the project goals.

- **The time line view.**
- **The content-type view.**
- **The metric view.**

Also, supplementing these would be some layout and partial views, involving a few landing pages like the sign up page etc.

Supplementary project goals include maintaining a blog to keep track of the project progress, as well as keep all CC members updated about it, documenting all code as the project proceeds and writing clean code which lays a strong foundation for the OpenHome project frontend.

## 1 - Technology Involved :

The project uses Handlebars.js as the primary templating tool. A JSON object would contain all information about a particular user's OpenHome website, and while implementing the code for each view, a subpart of this information will be utilized by the Handlebars' compiler produced Javascript function to produce the desired HTML. This HTML would then be rendered as the primary view. I have forked the OpenHome git repository and gone through the current codebase. The work for this project would primarily involve working with the views directory and creation of a documentation directory [a universal one or views specific one, whichever fits best] for code documentation.

## 2 - Task Break down :

Implementing the project would roughly involve iterations of these few higher level steps.

- 1. Making mockups for each template and corresponding views.
- 2. Getting feedback from the mentors
- 3. Implementing the mockups.
- 4. Getting feedback from users.
- 5. Regular updates to blog about progress.

These steps would be followed for each template as a whole, which would mean an okay from the mentors after Step #1 indicates its success, while an okay from the organization as a whole marks the success of Step #3.

## • Stretch Goals.

The stretch goals for this project could go in either of the two directions listed below(or both, if everything goes superfast).

### - **Supporting more genres of users.**

This could, for example involve, making templates and corresponding views for some more kinds of users. These users can belong to different genres like :-

#### • **University Students –**

Not every university student knows how to code in HTML and CSS, and craves for a place where he/she can put up his/her portfolio, links to relevant project information, and an about me column. This template would act as a more than pleasing product for such university students.

Some research can be done to identify other such genres of users and templates can be built to support them as well.

### - **Making a plugin repository and support system**

A repository can be coded , where in support plugins for websites can be coded and kept, and a functionality can be built into OpenHome can built which could help incorporate the plugins into the desired websites. This stretch goal would involve a two stage process,

**One** - Making a sample mini plugin repository,

**Two** - Building the plugin incorporating functionality into OpenHome websites.

The second stage would require considerable time and effort , I think, since we would have to build the functionality into each template. This is definitely something which can be taken up as a project later on (Next GSoC , may be?), however, the foundations can very well be laid as a stretch goal.

## • Design for the project.

I think I summarized the design for the project design in the technology used section , but Here goes the extension. The project design as far as the Project – Homepage Theme (from what I interpret )is as follows.

Having forked the git repository and playing around with it a bit, I have come to the following conclusions.

- This project primarily involves working with the views directory.
- There would be sub-directories for each template in the views directory, which would contain different views corresponding to that template. These would be .hbs files.
- There would be a JSON object prototype, in which all information regarding a user will be stored. This information (from the JSON object) , along with the .hbs template view file, would be compiled by the Handlebars.js library functions to produce the desired HTML corresponding to each view.
- Each view would require a different set of information about the user, however, all of the views would take the information from the same universal JSON object.
- The JSON object for the OpenHome site would be populated by other parts of the OpenHome project, which deal with APIs of other services like dropbox etc., along with the personal information provided by the user.
- In addition to the templates, views need to be built for the signing up process and some other landing pages, which are involved in the layouts and partials subdirectories.
- The OpenHome project as a whole uses Node.js on the backend, however, dealings with it with regards to this project would be less.
- The framework used by OpenHome for Node.js is Express, one of the best frameworks(\*with reference from Ryan Dahl, the creator himself) for Node.js

I plan to work with the mentors as suited to them before GSoC starts to get an even better picture of things I am missing out on, with regards to the Design of the project.

## • Possible risks and risk mitigation.

Following are the risks that I feel might hinder the progress of the project. Corresponding to each risk I have listed possible solutions to mitigate that risk and ensure overall progress.

### 1. Issue : Cross browser compatibility (Specifically for IE)

I have good experience working with Mozilla Firefox and Google Chrome, and everything I make has been optimized for these two browsers. However, in case of Internet Explorer, I have had less exposure and experience. Optimizing the templates for this browser might slow down the process a bit and make the iteration process a bit slower.

Solution : Test each piece of code for all browsers simultaneously.

I will divide coding for each view into parts, and test each part on all three browsers, before proceeding further. In this way, I think it will be easier for me to optimize the code for all three browsers.

### 2. Issue : Expertise at Node.js

I would admit that I am not an expert at Node.js and am somewhere between a beginner and an intermediate. Although this project requires relatively less of Node.js , I think it is important to learn it.

Solution : Learning quickly, should be good enough by the time GSoC starts.

I have already started working on it, and am going through the link to introductory text provided by Creative Commons for Node.js. I am understanding things so far. I am relatively fluent at JavaScript, so I feel mastering node.js shouldn't be an issue. I already coded mini chat server with Node.js on my linux distro and it works pretty good. I aim to complete the introductory text till 15-20<sup>th</sup> May, and would take any steps necessary (and advisable) to be proficient at it.

# Schedule of Deliverables

- Free time

I will be relatively free during the timeline of Google Summer Of Code and shouldn't have issues devoting around 35(+/-5) hours a week to the project depending upon the project requirements. I want to make sure that something I make has the necessary and intended impact and the software I produce is Robust in nature. I am willing to go that extra mile to make that happen, and make something that I am proud of.

- Schedule

Prior To June 17	Getting acquainted and well versed with Open Home System, refreshing coding skills, and any other necessary steps as suggested by mentors. Blog creation and regular updates about learning process.
Week 1	Mockups and wireframes for template #1.
Week 2	Feedback from Mentors and iteration for template #1.
Week 3	Implementation of mockup designs for template #1.
Week 4	Implementation of mockup designs for template #1.
Week 5	Mockups and Wireframes for template #2 and submission of implemented code for template #1.
Week 6	Feedback on Mockups and wireframes for template #2 and feedback from users of implementation for template #1.
Week 7	Iteration of mockup for template #2 and changes to code of #1
Week 8	Implementation of Mockup for template #2 and Code documenting and refactoring for Template #1.(Here, template 1 has reached its final destination)

Week 9	Implementation of Mockup for template #2.
Week 10	Feedback on Template #2 implementation and necessary changes.
Week 11	Code documenting and refactoring for Template #2.
Week 12	Any remaining clean ups.

- ## Blog Updates

The blog updates would be weekly or twice in one week, depending upon the chunk of the task completed. I aim the blog to be an easy to follow quick review platform, as well as an invaluable resource for someone who would build upon this project further.

- ## Please see

Also, this is the tentative schedule considering the most a particular task can take. If at all things get done quickly(which I think they will), we will advance to stretch goals with might take 2-3 weeks. The first suggested stretch goal would follow the same order as it is a mere extension of implementing templates for different kinds of users. The stretch goal #2 should also take the same time, considering I have been coding plugins for websites prior to this.