Project 2
CommunityFund: Improve your community

CSC309: Programming on the Web

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1 Description

CommunityFund is a crowd funding platform for raising fund and awareness on community projects. Crowdfunding[1] is the practice of funding a project or venture by raising monetary contributions from a large number of people, typically via the Internet. CrowdFunding has three main actors: the project initiator who proposes the idea and/or project to be funded; individuals or groups who support the idea; and a platform that brings the parties together. Since, crowdfunding leverage the power of internet, anyone from anywhere in the world can fund any project. However, *CommunityFund* is a community based crowed funding platform where people would fund community-based projects. So both the fund-er and the project initiator has to be part of a same community. A community can be based on interests or geographical locations. CrowdFunding is an example of a sharing economy paradigm[2], a socio-economic system built around the sharing of human and physical resources.

2 How it Works

CommunityFund is an online service where an individual (or a group) (from now on, the "funder") who are interested in helping projects within their community can find interesting projects from various project initiators (from now on, the "Initiator"). Initiators, register on the system and provide details of their projects and themselves. Funder, register on the system and search for interesting projects to fund, and if found one, they can give fund to the project. The fund represents either (i) a donation, or (ii) a payment for a product, which will be shipped to the funder at a later time (after successful completion of the project). Initiators has to specify communities for the project; which can be based on location or interests. Funders also need to specify the communities they are interested in and they can only fund any projects within those communities. Once the funder finds a suitable project they can fund the project helping it reaching a specific goal set by the initiators. The community members should form a social network Once a funder or initiator joins a community she is automatically joining a social network that allows her to explore information about the community and the projects within. They can communicate with each other and know more about the project from the people around the project.

[1] Wikipedia article: `http://en.wikipedia.org/wiki/Crowdfunding`
[2] Wikipedia article: `http://en.wikipedia.org/wiki/Sharing_economy`

3 Challenges for *CommunityFund*

Entrepreneurs often struggle to run their project due to lack of fund. At the same time, there are thousands of people who are willing to give money for a cause they believe in. Matching these two parties in a easy and natural way is the main challenge of this project. Again, funder always want to know the impact they have made for the project and the impact of the project within the community. So, providing the ways to measure the impact of the project within the community is an additional challenge. One possible way to measure the impact is to get testimonials (or reviews, reputation systems) from the community members for the project. Students can come up with their own ways for measuring impact.

4 Your Project

Your team is in charge of designing and developing a fully functional web application for supporting crowed funding platform. Here is a list of components that your system should support:

- **User Authentication**: Authentication is the process of verifying who a person is. There are a number of methods for doing this, but the most common process is a two way matching process between a public identifier (i.e. a user name or userid) and a private identifier (i.e. a password). On the internet, this is the most common and convenient mechanism.
- **User Profiling**: Each user in your system has a profile. A user profile is a collection of personal data associated to a specific user and it may include information about her identity, her reputation, the type of project she is interested in doing or funding, the professional skills and projects she is interested in, etc.
- **User Interactions**: A user can act either as Funder or an Initiator. As an Initiator she can post a project to raise fund, describe the project milestones/products (if any), and other relevant information. As a Funder she can navigate through the listed projects, give testimonials, or give fund.
- **Implicit Social Networking**: Your system should be the basis for an implicit social network. In this social network users that are within a common community at the same time are automatically considered 'friends'.
- **Reputation System**: Your system will resemble a reputation system that computes and publishes reputation scores for both (i) funders and (ii) initiators registered on the system. The reputation score of a project is based on ratings that community members provide about a specific project. The reputation score of a initiators is based on ratings that community members provide about the initiator in their social network, based on their chance to interact or collaborate with her. Ratings are typically passed using a simple rating system (like/dislike, star system, 1-10 grade, etc.). Reputation scores are representing a collection of community member's opinion and can be used by the system to provide recommendations about which project to fund and who are good funder to seek for.
- **Administrative View**: Your system should support an administrative view of the system. Administrators can see aggregate information about the projects, such as, total number of project funded, or average days to reach a fund goal, and other useful analytics.

5 Administrative Issues

Team Formation: Teams should consist of at most 4 students (no more, no less than 3). Note, however, that this is for a reason, as the project is expected to be large and requires several and diverse competences, from web design and usability issues, to feature development, database design and administration, reports, etc. It is expected that all students at your level have many competences and can be a lot of help in the various aspects of the project. Remember, as well, that learning is a social process and you should expect to learn from and to transfer knowledge to other students of your team. If you still insist to work on a team of 3, then that is possible, but not encouraged, and you need to consider that there will be no 'favorable' marking due to the fact that your team is less numerous. As such, our strong recommendation is to try to find enough students to work with. Students are responsible to find and join a team. In the rare case that you would like to, but have difficulty finding a team, you can contact us; We will try to accommodate individuals by assigning them to less numerous teams, but hopefully there will be none or just a few of these cases.

Weekly Status Reports: As an effort to coordinate the team projects, a TA will be assigned to each team. The TA will be responsible for keeping track of the developments of each team during the term towards the successful completion of your project. The objective is to communicate any question you have to the TAs, ask for 'advices' and (non-technical) troubleshooting. The TA will also inquire about the status of your project, to make sure that all teams are on track towards the deliverable. To make this task efficient, each team needs to send a maximum 1-page *weekly status report* in **a bullet format** to the assigned TA with the current developments and any issues that need to be raised. The 1-page status report needs to be sent to the assigned TA by every **Thursday at 11:59pm** and should include:

- the tasks that the team has been working since the last weekly report
- the action items for the week ahead
- any questions or concerns that need to be raised to the TA

6 Team Project Schedule

Phase	Weight	Due Date	Deliverable	Summary
1st	-	Thu, Jan 22th at 11:59 pm	Team Formation, Project Selection	A one-page report with the synthesis of the team, competences, and the selected project.
2nd	10%	Thu, Feb 5th at 11:59 pm	Software Design Specification	A report that provides information about the design of the system, technologies to be used, description of the features, etc.
3rd	10%	Thu, Mar 5th at 11:59pm	Report, Source Code, Prototype URL	A report that documents aspects of the system, implemented features and future developments, as well as, a URL to access the prototype.
4th	30%	Thu, Apr 2nd at 11:59pm	Final Report, Source Code, Demo URL	A report that documents aspects of the system and provided features, as well as, a URL to access the demo.

More information will be provided in class.