

Web Engineering Assignment

Application Description

In this assignment, you are requested to design and implement a Web application for Crowdfunding of projects. For inspiration, you can look at websites like <https://www.kickstarter.com>, and <https://www.indiegogo.com/>.

The Web application allows a *Campaigner* to publish information about a *Campaign* (i.e. a project) in order to gather *Contributions* from *Supporters*.

A *Campaign* is defined by a *Title*, *Description*, a monetary *Goal*, an *Expiration* timestamp, *Popularity* and *Quality* scores, and a set of *Contributions*. A *Contribution* is unique to a *Campaign*, and is defined by a title, description, and a minimum monetary *amount*. A *Contribution* can be backed by multiple *Supporters*, but there exists a limit on the amount of backing that a *Contribution* can obtain; this limit is specific to each *Campaign*. *Supporters* can vote *Campaigns*, and ask public or private *Questions* to the *Campaigner*. *Campaigner* can also proactively contact *Supporters*, but only once per campaign. The *Quality* score of a campaign is obtained from the aggregation of the votes it receives. The *Popularity* score is obtained from the amount of received *Contributions*.

A *Campaigner* can propose multiple *Campaigns*. A *Supporter* can back a maximum of one *Contribution* for each *Campaign*, but provide backings for multiple *Campaigns*. *Campaigners* and *Supporters* are both registered users in the Web application. Both are described by *Name*, a *BirthDate*, and one or more payment information. A *Campaigner* is also associated with a *Reputation* score, obtained from the evaluations provided by *Contributors* for all proposed *Campaigns*. A *Supporter* is also described by a *Wisdom* score, obtained by considering the *Quality* scores of the *Campaigns* she contributed to.

Requirements

Use IFML and WebRatio to model and implement the Web site described above.

The student must design:

- The application data model
- The public site-view, where a *Campaigner* or a *Supporter* can login or register to the system
- The *Campaigner* site-view, accessible only to authenticated campaigners, where a *Campaigner* can create/monitor/conclude crowdfunding campaigns. The site-view should feature functionalities that ease the advertisement of *Campaigns* to *Supporters*, i.e. by suggesting *Supporters* that backed similar projects in the past. The site-view should contain reporting functionalities, where the *Campaigner* can inspect the *Contributions* of each *Campaign*, and answer to *Supporters'* questions.
- The *Supporter* site view, used by authenticated supporters to list the *Campaigns* available for backing, provide *Contributions*, ask questions, and inspect the history

of *Contributions*. The site-view should feature search and/or recommendation functionalities that ease the *Campaign* selection process. For instance, by allowing searching and ranking according to the reputation of a *Campaigner*, or by suggesting *Campaigns* that are similar to previously backed ones.