# Engineering Society Dashboard Proposal

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## General Overview

The Engineering Society has a very outdated online application system and is to be replaced with a newer and much more feature rich system called the Engineering Society Dashboard. The replacement is developed using the Ruby programming language and utilizes the Rails framework and various other front end web development languages and frameworks including HTML, Bootstrap, SASS, and JavaScript. The project was originally conceived by Robert Saunders during his term as the Director of Information Technology within the Engineering Society of Queen’s University. Throughout his term the web platform was designed and developed in part with Peter Ju who was an IT Team member at the time, but it is noted that the project extended his expected commitment to the team. During the term the two, Robert and Peter, could successfully develop a working replacement for the current online application system. The current implementation of the system includes, the ability to apply for jobs, the ability to save drafts of job applications, the ability to approve/disprove job postings, the ability to manage organizations within the Engineering Society and the ability for managers to schedule job interviews. However, there is still work to be done to get the platform ready for more users and implementation into the Engineering Society’s infrastructure, these next steps are outlined below and the goal would be to have them completed before the end of the summer and having the platform working for the new school year starting in September 2017.

## Requirements

The items that need to be completed before the launch of the system are outlined below, these would be completed over the summer:

* Information Technology Services Security Audit
  + Before the platform can be deployed it must pass a security audit from the Queen’s University Information Technology Services department.
* Implement Additional Dashboard Features
  + Implement a calendar on the home page to display student’s classes.
  + Implement Engineering Society social feeds on the home page.
  + Implement logic to display suggested jobs within the Engineering Society.
* User Interests Mapped to Jobs
  + Implement an option on a user’s profile to add interests.
  + Implement an option to add interests to jobs.
  + Add logic to compare user interests with interests associated to jobs.
* Job Position History
  + Implement ability to archive job history, currently a crude implementation.1
* Email Notifications
  + Implement HTML emails to notify users about various things, such as interview time and location, new job postings and more.
* Facebook Messenger Notifications
  + Integrate with the Facebook Messenger API to notify users about various things, such as interview time and location, new job postings and more.
* Implementation of Single Sign On
  + Implement the Queen’s University SAML authentication service.
  + Add logic to create new users if a user is not in the database.
* Testing (Implement Continuous Integration)
  + Thoroughly test the platform using a beta testing program.
  + Implement continuous integration (CI) the test through development.
* User Interface Improvements
  + Improve various user interface issues.
* Documentation and Clean Up
  + Document the GitHub repository about the project.
  + Clean up the code.
* Complete Open API
  + Expose a restricted API for other people to use.
* Improve and Evaluate Accessibility
  + Evaluate the accessibility of the platform so it adheres to the Queen’s standards.
  + Improve mobile experience, already works because built using Bootstrap.
* Deploy Application
  + Determine best method to deploy the web application, can utilize the Engineering Society’s servers or utilize a PaaS (Platform as a Service) such as Heroku (for testing purposes we will be using Heroku).
* User Profile Images
  + Integrate with a service such as Amazon Web Services to store user profile images if the user desires to add a photo to their profile.
* General Bug Fixes

## Maintenance Plan

Considering the future when the platform is operational there will be maintenance needed. Whether it is for issues that users are having, or additional features that are desired to be implemented. To address the second issue, any additional features will be subject to a discussion between the development team and the executive at the time, there will likely be compensation required. In terms of general maintenance and support for the system during the year the platform will be maintained by Robert Saunders, this deal can be discussed in September 2017, but will likely not involve much (if any) compensation. Alternatively, the current Director of Information Technology can opt to maintain the platform during the year with proper transition from the development team. Robert will be here for two more years, when his time is done, the project will have to be handed over to the Director of Information Technology at the time and the executive will be responsible to hire a person that can take the project over. It must be noted that the current system hasn’t been updated or maintain since its conception. At the end of Robert’s time at Queen’s the system should be sufficient if the current executive and future executive continue to put focus on it.