CO-OP EVALUATION SYSTEM

The Co-operators, Class of 2015
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Motivation
The purpose of the Co-op Evaluation System (CES) is to allow students to provide feedback on their most recent co-op, and for employers to provide feedback on a student’s performance during their most recent co-op. Additionally, the system is used by faculty to approve or reject a student’s co-op, and is also used by OCSCE staff to gather data on students’ co-ops.

Background
The purpose of this project is to re-engineer the Co-op Evaluation System in order to leverage newer web technologies while also improving performance and user interaction. The current system uses outdated, under-documented technology, which makes it difficult to maintain. Furthermore, the random errors that occur do not give users confidence that their information was submitted properly. Significant improvements to the user interface needed to be made, but the existing database structures were used as a reference for modifications.

Technologies

High-Level System Features

- Students
  - Complete work report evaluating co-op experience
  - Review previously submitted work reports
  - View employer’s evaluation of co-ops

- Employers
  - Complete evaluation of student co-op work
  - Review previously submitted evaluations

- Departments
  - Search and review submissions for a given department
  - Approve or reject student co-op evaluations
  - View and edit email notifications for the department

- Administrators
  - Create, update, and archive forms
  - Search and review all submissions
  - User and college administration
  - View, edit, and send email notifications

Future Work
As the Co-op Evaluation System is critical to the RIT co-op program and the original system is in poor shape, this project will be followed through to completion by the ITS Enterprise Web Applications Development team, possibly with the aid of another Senior Project team or student workers.

Process Methodology

Evolutionary Delivery
Evolutionary delivery is a lifecycle model that straddles the ground between evolutionary prototyping and staged delivery. It hits the perfect balance between plan-driven and agile methodologies in such a way that it works well for this type of project, giving the sponsors the visibility they want and the developers the agility they need.

System Architecture and Context
Co-op data is imported into the Co-op Evaluation System via the Co-op Registration System. Students, department users, and administrators are authenticated into the application through Shibboleth, while employers are authenticated through a custom log-in process. The system sends emails to users using ITS’s mail server, and generates reports using an external tool.

Measurements and Metrics
Software Usability Scale
The SUS is a set of 10 Likert questions that is a quick, reliable way to measure usability for the product and each individual user role. A score of 68 or above is considered better than average.

We achieved a score of 86 for Student, 78 for Employer, 87 for Department, and 81 for Administrator. We achieved an average score of 82.

Task Breakdown by Hours
To our surprise, less than half our effort on this project was devoted to implementation. We spent more time on documentation and other managerial tasks than we thought we would.

Another realization was to write tests early and often. Our delay in testing caused issues to go unnoticed for extended periods of time. We all wanted to prioritize functionality, but quality should have been our top concern.