Problem Statement
The project goal is to optimize annual distributions by minimizing the amount of tax paid on those distributions. This will help maximize the number of years the assets last. The software will calculate expected savings based on clients’ projected retirement dates. The software needs to optimize pre-retirement, where clients are accumulating assets, and retirement, where clients are spending those assets. Pre-retirement inputs would include savings rates in various types of accounts (IRA/401k, Roth, after-tax, etc), expected rates of return, and predicted interest rates.

During retirement, clients derive their income from multiple sources. Social Security, IRA distributions, Roth distributions, HSA distributions, pensions, and other savings which all have different tax treatments. If there are substantial assets other goals will be to maximize the assets remaining after a 30-year horizon when the client could be expected to pass away.

Situations may arise where paying a little more tax today creates savings over the client’s lifetime. Detailed knowledge of individual income tax rules, tax table breakpoints, and tax treatment of various accounts will be required to produce a useful product.

Team Members
Matt Smicinski: Web “Guru”
Sean Dolan: Meeting Scribe
Piper Chester: Requirements Tracker
Geoff Berl: Sponsor Liaison
Tom Reichlmayer: Faculty Coach

Team Communication
The team will meet at least 4 times a week. The team will meet with the project sponsors at most once a week. However, the number of times will be dictated by the amount of work that needs to be done and the schedule of the team members. Team communication will be facilitated through group emails and the activity tracker in Google docs.
Meeting times will be

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
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<tbody>
<tr>
<td>Monday</td>
<td>3:00 to 4:00 PM</td>
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<tr>
<td>Tuesday (with project sponsors)</td>
<td>5:00 to 6:15 PM</td>
</tr>
<tr>
<td>Thursday</td>
<td>5:00 to 6:15 PM</td>
</tr>
<tr>
<td>Friday</td>
<td>2:00 to 3:00 PM</td>
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**Development Environment and Tooling**

The following tools will be used in this project:

- **Teamwork**: A time, risk, issue tracking site that we will use to manage progress for the project
- **Slack**: A communication tool for discussions outside of meetings
- **Google Docs**: A document sharing service
- **Framework**: Play Framework
- **Languages**: Java, Scala, JavaScript, HTML/CSS
- **Database**: SQLite

**Artifacts**

- Managed feature list (Requirements doc)
  - Maintained on Teamwork.com website
- Design doc
  - Contains the calculation procedures for all taxes
- Acceptance criteria
  - Maintained on teamwork.com website

**Milestone Schedule**

The team maintains its milestone and release schedule on its project management tool, Teamwork. The schedule can be provided to anyone who needs access.

A potentially out-of-date file can be found in the links above.

**Process Methodology**

We will be utilizing an iterative and incremental approach in this project. We hope to have a build done every 2 to 3 weeks, with a potential release to the customer
every or every other build. We will be keeping a feature list that will be updated as customer needs are changed and prioritized.

**High-Level Architecture**

The application will be a web app, where information is displayed to the user through a web browser, and all process-intensive calculation is done on the server. The process-intensive calculation will consist of two separate engines: the 1040 calculation engine, and the optimization engine. The optimization engine will predict an ideal timeline for the client to manage their retirement income.

**Risk Management**

A list of potential risks will be maintained in the project management tool Teamwork. When needed, an excel spreadsheet can be generated detailing all risks, their status, and severity.

A link to a potentially out of date spreadsheet of risks can be found in the links above.

**Testing**

The team plans to utilize multiple forms of testing throughout the project, including unit, integration, and acceptance testing. This project’s success is highly dependent on accuracy of tax calculations; unit tests will be of critical importance. The team will be utilizing numerous test cases with a particular focus on the outlier cases.

Acceptance criteria for each feature in the system will be documented on the task itself on the project management tool, Teamwork.