MICHIGAN STATE
U N I V E R S I T Y

Project Plan
Hiring Automation Process

The Capstone Experience

Team Quicken Loans

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Functional Specifications

Client Problem:

- Needs a process to find if a recruit is compatible with Quicken Loans culture

- Remove unintentional subjectivity that a phone or in-person interview offers

Functional Specifications

Solution:

- Automated web-delivered personality and intelligence tests platform

- Remove some of the subjectivity from traditional hiring process

- Test results are compared to current team members' results to find recruit is a good fit in the company
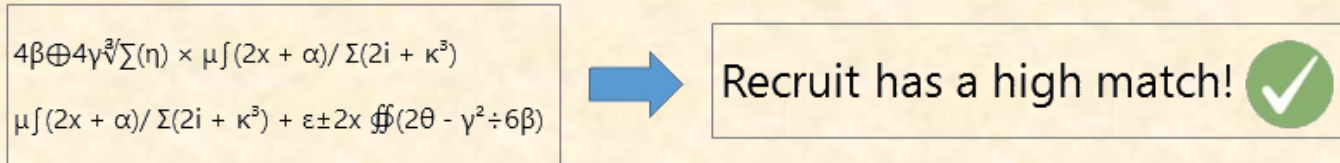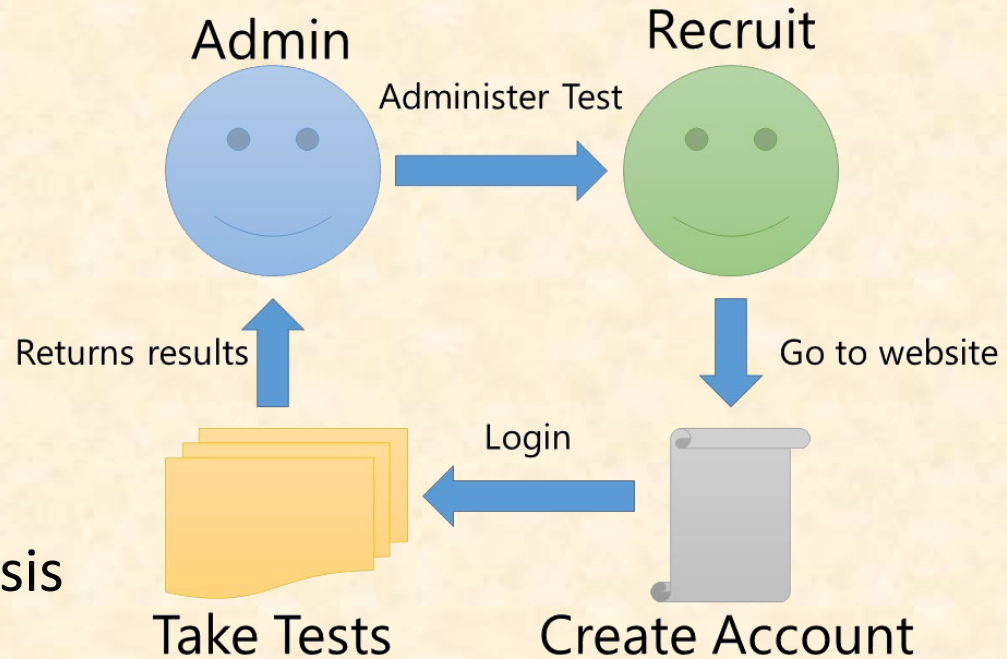
Design Specifications

- Recruit
  - Create Account
  - Take tests
- Admin
  - See user results
    - See results of data analysis
    - Match user to position

Admin — Administer Test → Recruit

Returns results ↑

Recruit — Go to website ↓

Login ← Create Account

Take Tests

$$4\beta \oplus 4\gamma \sqrt[3]{\nu} \sum(\eta) \times \mu \int (2x + \alpha) / \sum(2i + \kappa^3)$$

$$\mu \int (2x + \alpha) / \sum(2i + \kappa^3) + \epsilon \pm 2x \oint (2\theta - \gamma^2 \div 6\beta)$$

→ Recruit has a high match! ✓

Complicated algorithm to readable result

Screen Mockup: Login Screen
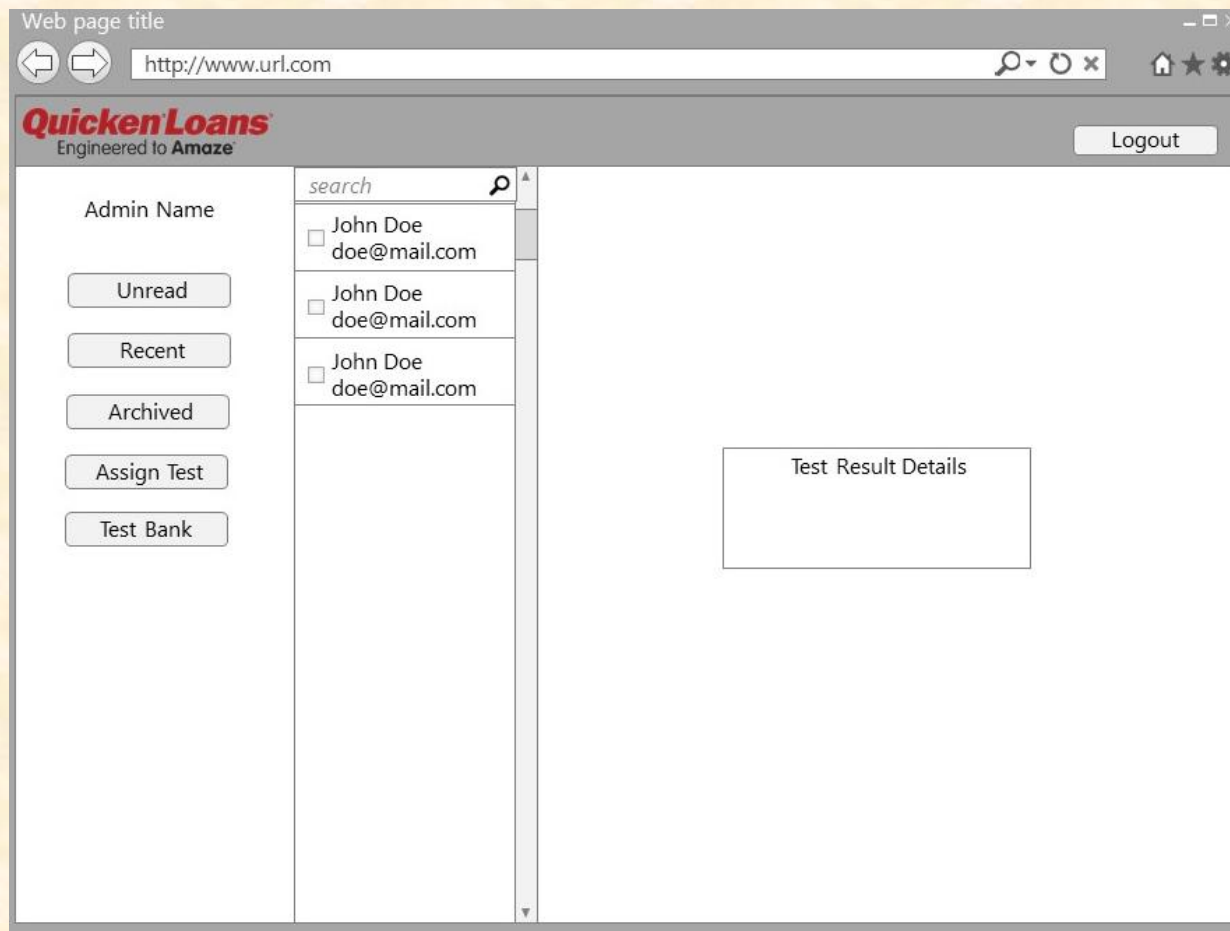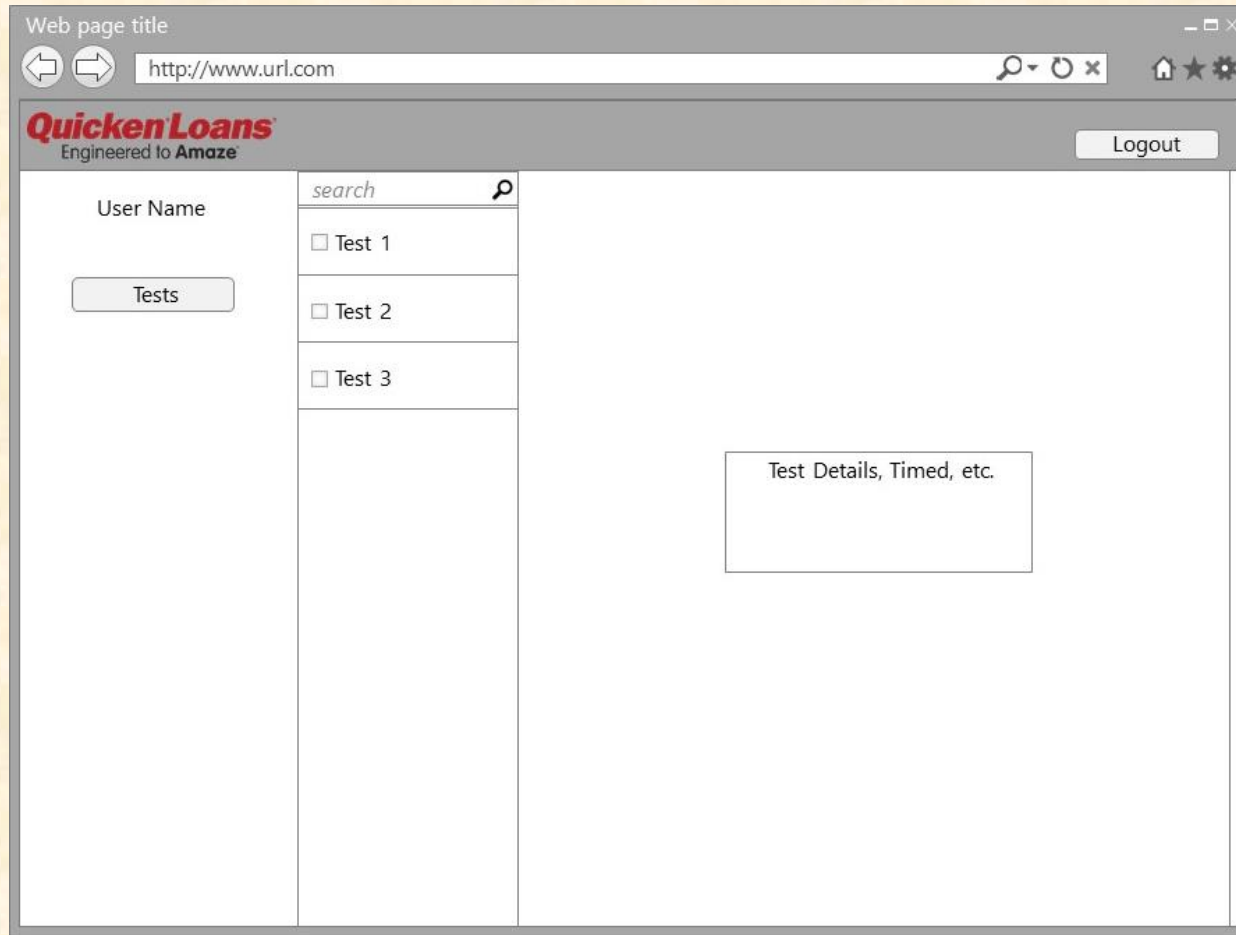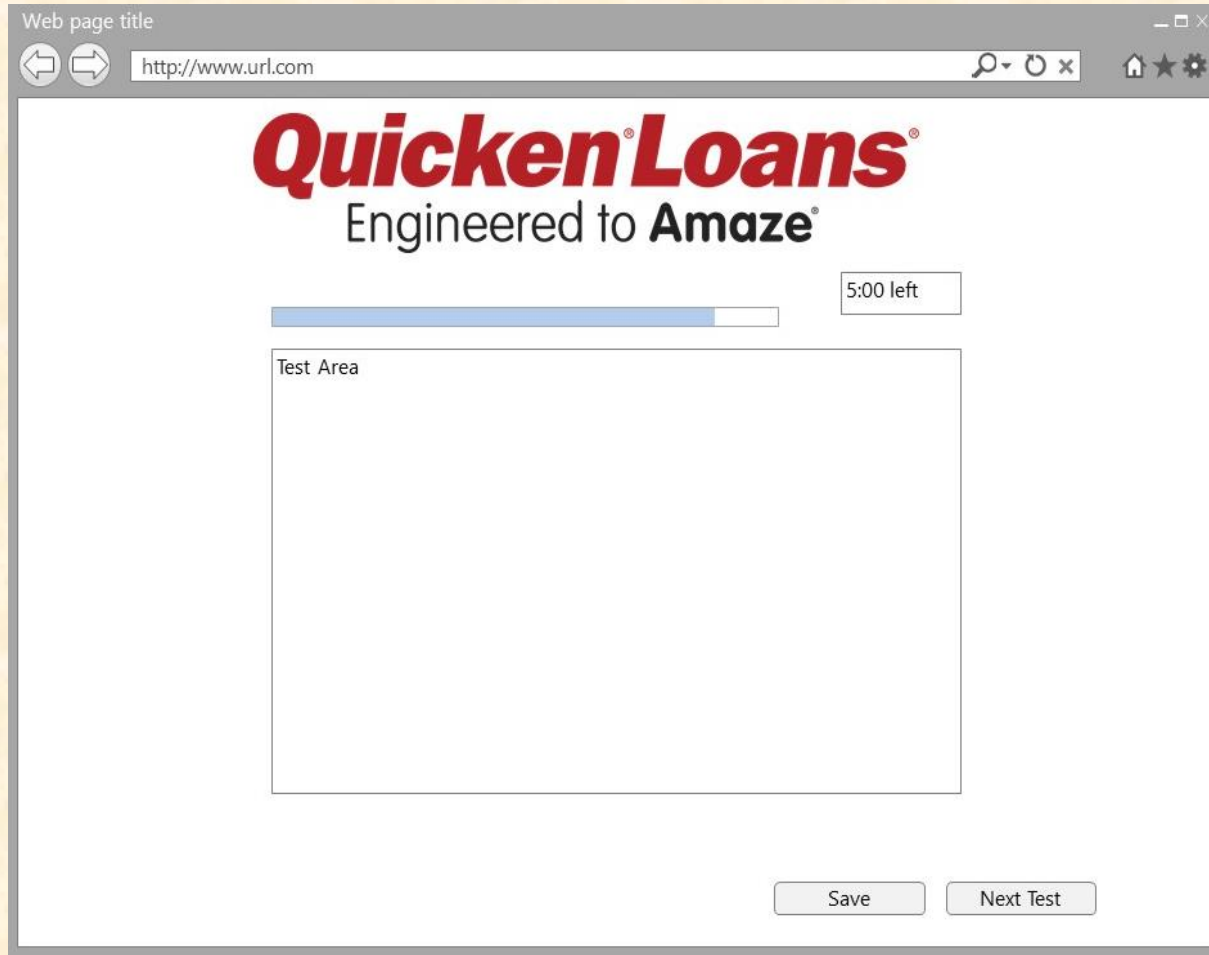
Screen Mockup: Admin Home Screen

Screen Mockup: User Home Screen
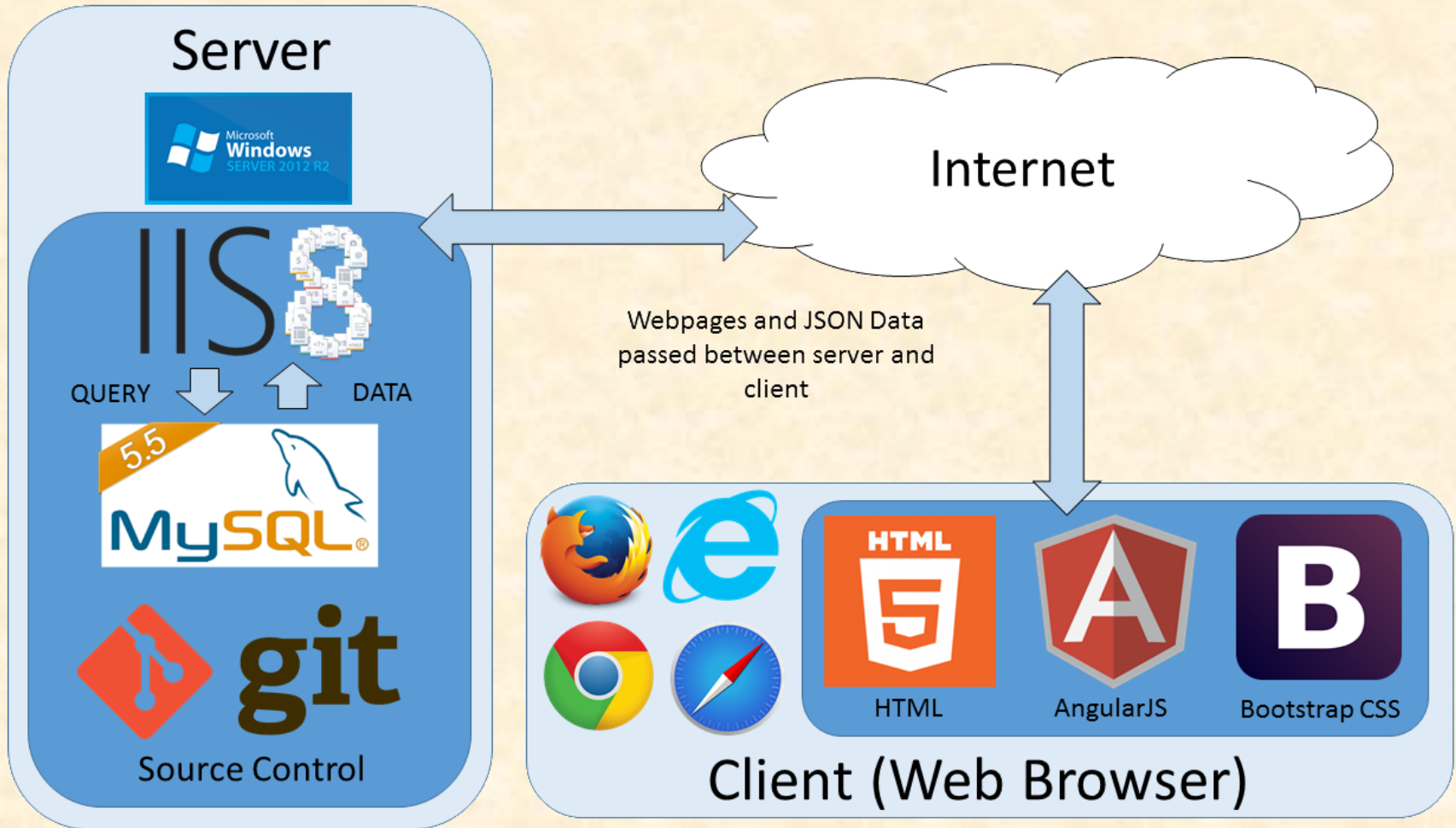
Screen Mockup: Test Screen

Technical Specifications

- Server
  - IIS 8 – Web Service
  - MYSQL 5.5 – Database Service
- Languages / Scripts
  - C# - Server
  - AngularJS - Client
  - Bootstrap CSS - Client

System Architecture

System Components

- Hardware Platforms
  - Two (2) Mac Machines with OSX
  - Rack Server with Windows Server 2012 R2
  - Personal Computers with necessary software
- Software Platforms / Technologies
  - Visual Studio Community 2015
  - Bonobo Git Server
  - Jenkins Automation Tool

Testing

- **Unit Tests**
  - Unit Tests project in solution
  - Each part of the code will have a corresponding unit test
  - Testing will be done as code is developed
- **User Testing**
  - Ask capstone students to use our application to test UI/UX
  - Ask Quicken Loans employees to use our application to test UI/UX
  - Normal use and trying to break the application

Risks

- **Database to Application Connection**
  - *Description:* The team does not have much experience with connecting to a database in an ASP.NET application.
  - *Mitigation:* Early prototyping and testing with simple applications to connect with database will ensure the team understands how to perform this task.

Risks

- **Initial Structure Set-Up**
  - *Description:* The team needs to decide which technologies will be used for the different functionalities of the application.
  - *Mitigation:* Extra team meetings and early client contact will be used to quickly decide which technologies would be best for certain aspects of the web application.

Risks

- **Data Analytics**
  - *Description:* The client has specified that they would like data analytics on the results of the personality tests. The team does not have much experience with data analytics nor do they know what specific tools the client would like them to use.

  - *Mitigation:* Early client contact to and research on known data analytics tools to use will help the team decide on how analyze the data from the application.