From Students…
…to Professionals

Beta Presentation
Walter, You Gotta Go

The Capstone Experience
Team Quicken Loans

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Project Overview

• Problem:
  ▪ Quicken Loans has several legacy systems they wish to replace
  ▪ Many are interconnected, greatly complicating the refactoring process
• Solution:
  ▪ Create a web-based front-end that interfaces with legacy software in the background
  ▪ Automate the use of the legacy software with Robotic Process Automation (RPA)
System Architecture

**Walter, You Gotta Go**

- **Walter (Legacy App)**
  - Windows Forms

- **Debra (Virtual Worker)**
  - UiPath

- **Roger (API Endpoints)**
  - .NET Core
  - GraphQL

- **Leroy (Database)**
  - SQL

- **Lindsey (Modern Web App)**
  - Angular
  - Spark
Walter Document View

W-2 Wage and Tax Statement

<table>
<thead>
<tr>
<th>Employee's social security number</th>
<th>OMB No. 1545-0008</th>
</tr>
</thead>
<tbody>
<tr>
<td>367-68-6664</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employer identification number (EIN)</th>
<th>Federal income tax withheld</th>
</tr>
</thead>
<tbody>
<tr>
<td>03-9192032</td>
<td>6,835.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employer's name, address, and ZIP code</th>
<th>Social security wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>The PGA of America</td>
<td>50,000.00</td>
</tr>
<tr>
<td>100 Avenue of the Champions</td>
<td></td>
</tr>
<tr>
<td>Palm Beach Gardens, FL 33418</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Control number</th>
<th>Verification code</th>
<th>Dependent care benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1B4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employee's first name and initial</th>
<th>Last name</th>
<th>Suffix</th>
<th>Nonqualified plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justin Thomas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3093 Karen Lane</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louisville, KY 40202</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Employer's state ID number</th>
<th>State wages, tips, etc.</th>
<th>State income tax</th>
<th>Local wages, tips, etc.</th>
<th>Local income tax</th>
<th>Localit name</th>
</tr>
</thead>
<tbody>
<tr>
<td>KY</td>
<td>497</td>
<td>50,000.00</td>
<td>1,535</td>
<td>50,000</td>
<td>750</td>
<td>MU</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>1,500.00</td>
</tr>
<tr>
<td>DD</td>
<td>1,000.00</td>
</tr>
<tr>
<td>P</td>
<td>4,800.00</td>
</tr>
</tbody>
</table>
Walter Input Screen
Lindsey Document List

![Image of Document List from Quicken Loans]

- Document Id: 04550392-2E2D0-E811-AF11-0015SD6FA559
  - Name: MarleenVerman.pdf
  - Type: Unknown
  - Actions: View

- Document Id: 06550392-2E2D0-E811-AF11-0015SD6FA559
  - Name: BrennenAlexsandrowicz.pdf
  - Type: Pay stub
  - Actions: View

- Document Id: 06550392-2E2D0-E811-AF11-0015SD6FA559
  - Name: HarmonJoslow.pdf
  - Type: W2
  - Actions: View

- Document Id: 07550392-2E2D0-E811-AF11-0015SD6FA559
  - Name: EllieMcAlister.pdf
  - Type: Bank statement
  - Actions: View

Showing 1 to 4 of 100

Options: Prev | 1 | ... | 25 | Next | Page Size: 4 →
Lindsey Document View
What’s left to do?

• Clean up threading issues in Walter
• Solve data output limit issue with Azure
• Allow for document updating from Lindsey
• Add advanced search to Lindsey
• Create script to add documents easier
Questions?