

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Walter, You Gotta Go

The Capstone Experience

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*From Students...
...to Professionals*

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Fall 2018

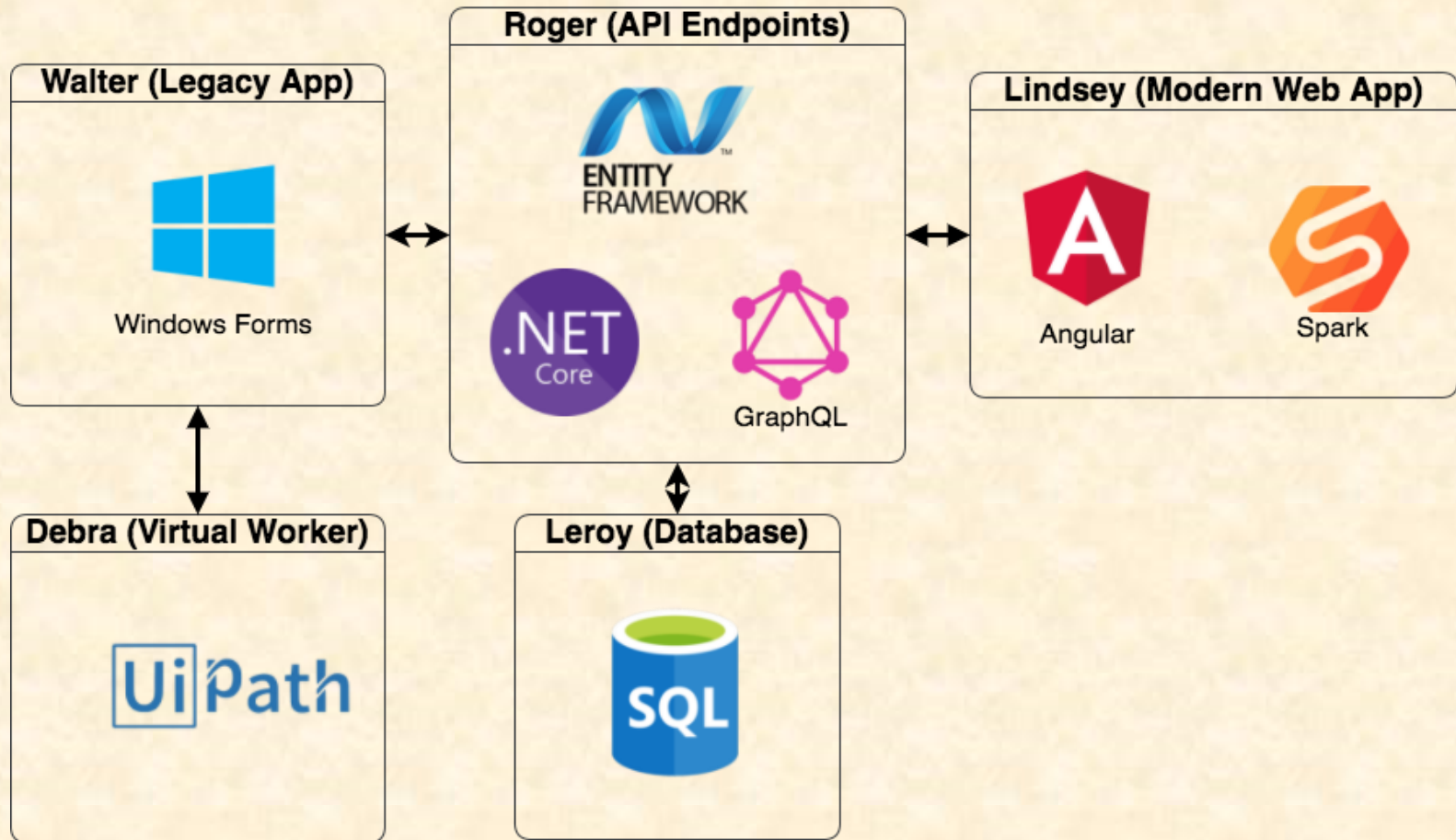
Project Overview

- 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 Document View

22222		a Employee's social security number 367-68-6664		OMB No. 1545-0008	
b Employer identification number (EIN) 03-9192032			1 Wages, tips, other compensation 48,500.00	2 Federal income tax withheld 6,835.00	
c Employer's name, address, and ZIP code The PGA of America 100 Avenue of the Champions Palm Beach Gardens, FL 33418			3 Social security wages 50,000.00	4 Social security tax withheld 3,100.00	
			5 Medicare wages and tips 50,000.00	6 Medicare tax withheld 725.00	
			7 Social security tips	8 Allocated tips	
			d Control number A1B4		9 Verification code
e Employee's first name and initial Justin Thomas		Last name 3093 Karen Lane Louisville, KY 40202	Suff.	11 Nonqualified plans	12a D 1,500.00
f Employee's address and ZIP code		13 Statutory employee <input type="checkbox"/> Retirement plan <input checked="" type="checkbox"/> Third-party sick pay <input type="checkbox"/>		12b DD 1,000.00	
		14 Other		12c P 4,800.00	
				12d	
15 State KY	Employer's state ID number 497	16 State wages, tips, etc. 50,000.00	17 State income tax 1,535	18 Local wages, tips, etc. 50,000	19 Local income tax 750
				20 Locality name MU	

Form **W-2** Wage and Tax Statement **2018** Department of the Treasury—Internal Revenue Service
Copy 1—For State, City, or Local Tax Department

Walter Input Screen

The screenshot shows a window titled "Walter" with a tabbed interface. The "W2" tab is selected. The form contains five input fields, each with a label on the left and a text box on the right. At the bottom left, there are "Submit" and "Cancel" buttons.

Field Label	Input Type
Social Security Number	Text Input
Employer Id	Text Input
Employee Address	Text Input
Employee Name	Text Input
Federal Income Tax Withheld	Text Input

Buttons:



Lindsey Document List

The screenshot displays the Quicken Loans Document List interface. At the top, there is a search bar and the Quicken Loans logo. Below the logo, the page title "Document List" is shown. A sidebar on the left contains navigation icons for home, user profile, document list, document details, and settings. The main content area features a table with the following columns: Document Id, Name, Type, and Actions. There are filter boxes for each column: "Document Id Filter:", "Name Filter:", and "Type Filter:". The table contains four rows of data, each with a "View" button in the Actions column. At the bottom of the table, there is a pagination and page size control showing "Showing 1 to 4 of 100" and "Page Size: 4".

Document Id	Name	Type	Actions
04550392-E2D0-E811-AF11-00155D6FA559	MarleenVerman.pdf	Unknown	View
05550392-E2D0-E811-AF11-00155D6FA559	BrennenAlexsandrowicz.pdf	Pay stub	View
06550392-E2D0-E811-AF11-00155D6FA559	HarmonJoslow.pdf	W2	View
07550392-E2D0-E811-AF11-00155D6FA559	EllieMcAlister.pdf	Bank statement	View

Lindsey Document View

The screenshot displays the Quicken Loans document view interface. On the left, a sidebar contains navigation icons and a list of document fields. The main area shows a preview of a W-2 form for the year 2018.

Document Name: JustinThomas.pdf

Social Security Number: [Redacted]

Employer Identification Number: 03-9192032

Employer Name & Address: The PGA of America 100 Avenue of the Champions Palm

Control Number: A1B4

Employee Name & Address: Justin Thomas 3093 Karen Lane Louisville, KY 40202

Wages, Tips & Other Compensation: 48,500.00

Federal Income Tax Withheld: 6,835.00

Social Security Wages: 3,100.00

W-2 Form 2018 Data:

2222	Employee's social security number 367-68-6664	OMB No. 1545-0008			
b Employer identification number (EIN)	03-9192032	1 Wages, tips, other compensation 48,500.00			
c Employer's name, address, and ZIP code	The PGA of America 100 Avenue of the Champions Palm Beach Gardens, FL 33418	2 Federal income tax withheld 6,835.00			
d Control number	A1B4	3 Social security wages 50,000.00			
e Employee's first name and initial Last name	Justin Thomas 3093 Karen Lane Louisville, KY 40202	4 Social security tax withheld 3,100.00			
f Employee's address and ZIP code		5 Medicare wages and tips 50,000.00			
		6 Medicare tax withheld 725.00			
		7 Social security tips			
		8 Allocated tips			
		9 Verification code			
		10 Dependent care benefits			
		11 Nonqualified plans			
		12a D 1,500.00			
		12b DD 1,000.00			
		12c P 4,800.00			
		12d			
15 State	16 State wages, tips, etc.	17 State income tax	18 Local wages, tips, etc.	19 Local income tax	20 Locality name
KY	497	50,000.00	1,535	50,000	750 MU

Form **W-2** Wage and Tax Statement **2018** Department of the Treasury—Internal Revenue Service
Copy 1—For State, City, or Local Tax Department



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?

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