

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Excel Data Extractor and Modeler

The Capstone Experience

Team Roosevelt Innovations Knowledge Science

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

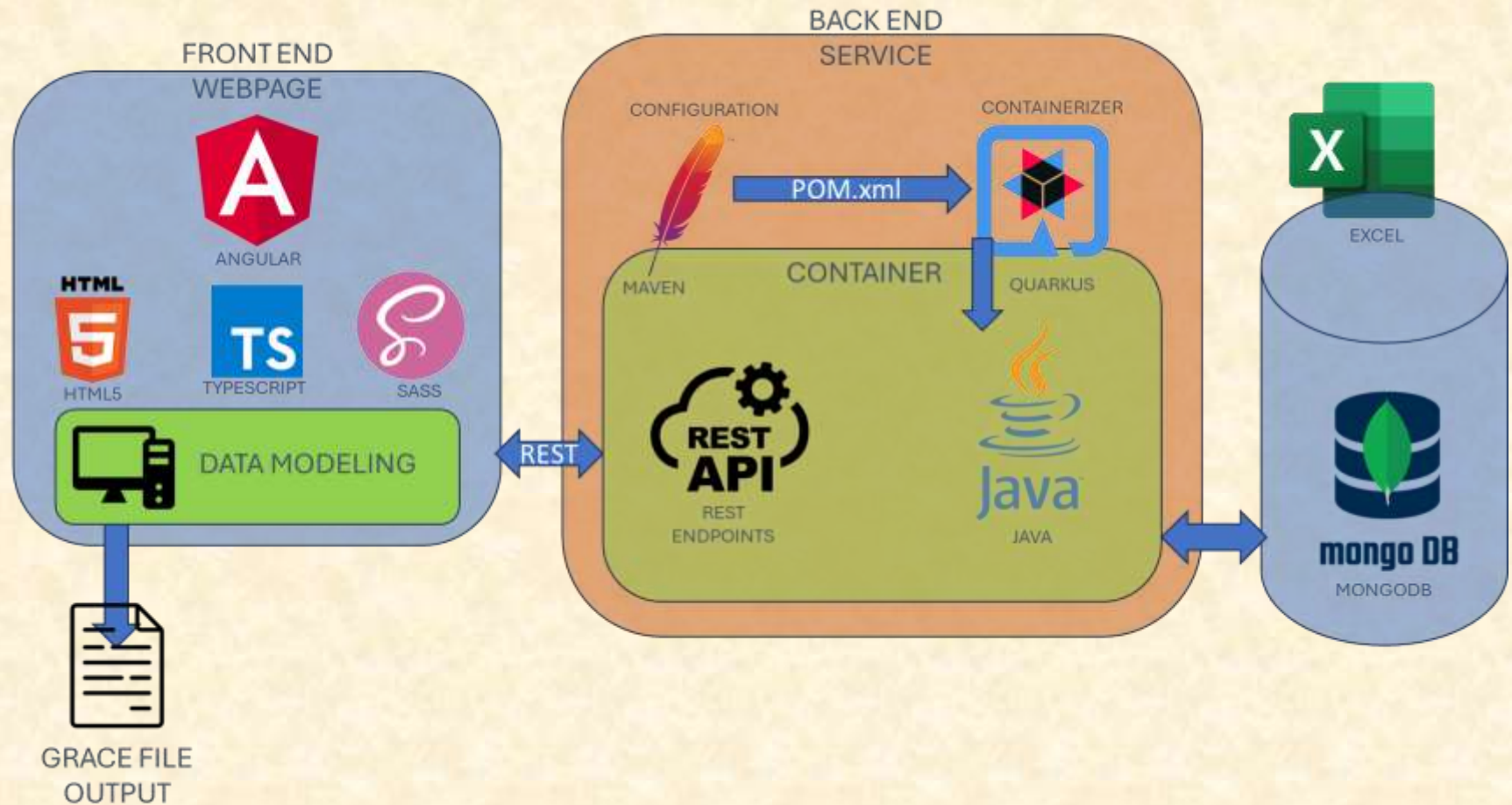
Project Overview

- Provides SaaS for Insurance Analysts with 50+ years of claims experience.
- Have saved about 972 million dollars in treatment costs.
- Founded as a subsidiary of Delta Dental of Michigan.
- Want to provide a better way to process their claims rate calculations.
- A better way to extract and model their claims data from Excel.



System Architecture

MICROSOFT EXCEL DATA EXTRACTOR/MODELER



Labels and Measurements

Roosevelt
simple. seamless. smart.

Added Labels

- Temp - Range: D3:L11
- States - Range: A2:A29
- TestingLabel - Range: L6:6

Suggested Labels

- Premier - Range: B3:J3
- Indiana - Range: D21:L29
- Ohio - Range: D12:L20
- PPO - Range: B2:J5
- Michigan - Range: D31:L11
- OCN - Range: B4:J4

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1				2021			2022			2023						000	
2				Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3				Name	
3	Michigan	Individual	PPO	2.31	5.92	5.21	1.20	7.35	8.90	4.52	5.80	7.80				State	
4			Premier	3.92	6.74	3.91	6.10	6.51	1.73	3.73	1.73	3.71				Sub Type	
5			OCN	4.17	4.95	5.17	1.47	6.36	6.41	3.43	2.89	5.17				Net Type	
6		Spouse	BPPO	7.64	1.11	5.48	1.88	3.34	7.00	3.45	1.11	5.48				Age	
7			Premier	2.85	5.78	7.98	2.21	2.58	4.85	6.78	5.78	7.88					
8			OCN	2.03	5.73	1.68	5.83	3.74	5.88	2.85	5.73	1.68					
9		Dependent	PPO	1.38	4.30	4.57	3.51	5.16	8.12	2.03	4.30	4.57					
10			Premier	7.48	4.45	6.38	4.81	6.84	1.81	1.38	4.45	4.39		CustomersPerQuarter2020 2021			
11			OCN	6.38	2.80	3.51	1.68	1.38	4.80	7.48	2.80	3.51		2020	400		
12		Ohio	Individual	BPPO	7.13	6.11	4.97	6.58	1.42	4.00	5.38	6.11	4.97			2020	300
13				Premier	1.80	1.27	4.01	3.06	4.80	4.02	7.13	1.27	4.01			2020	350
14				OCN	2.58	4.62	2.63	8.10	1.26	1.40	1.80	4.62	3.03			2020	400
15	Spouse		PPO	1.25	7.44	1.91	6.45	4.17	3.00	3.58	7.44	1.91			2021	840	
16			Premier	6.44	5.71	4.17	4.75	4.69	6.51	1.25	5.71	4.17			2021	700	
17			OCN	7.42	4.02	1.08	2.53	6.99	1.89	6.44	4.02	1.08			2021	760	
18	Dependent		PPO	2.97	2.75	4.26	1.88	2.49	8.25	7.42	2.75	4.26			2022	850	
19			Premier	5.66	1.17	7.24	2.16	4.11	5.08	3.97	1.17	7.24					
20			OCN	5.75	4.96	3.18	2.67	3.84	5.72	5.66	4.96	3.18					
21				PPO	1.44	2.76	7.18	4.15	2.55	6.37	1.44	2.76	7.18				



Formula Analysis

	A	B	C	D	E	F	G
1		Apple	Orange	Lemon	Totals	Products	Combination
2	Tasty	54	58	34	226	13848	144364208976
3	Sour	26	9	67	102	15670	
4	Plain	10	42	5	57	2100	
5		18	3	28	133		
6			314	360	2100		

D6

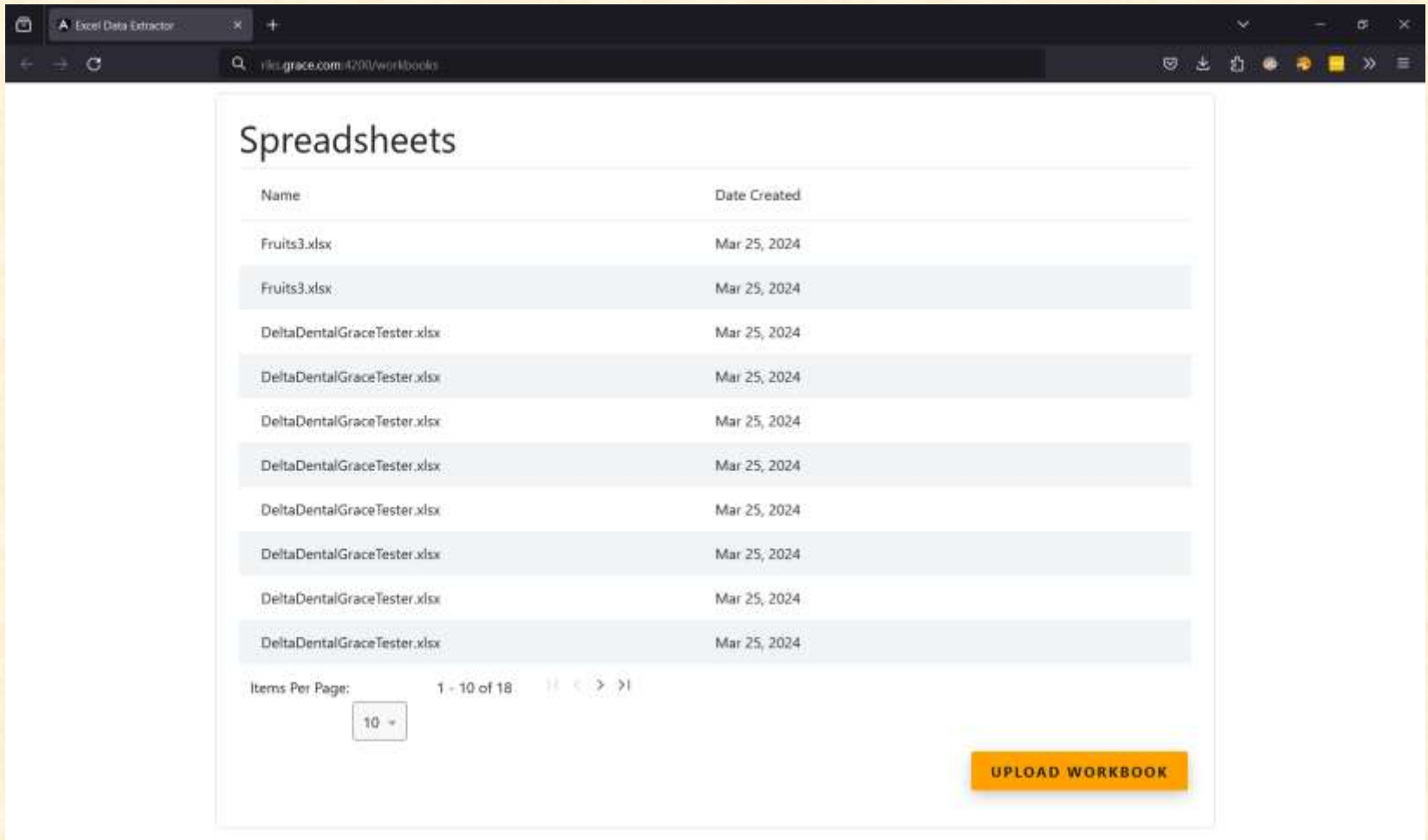
Function Signature:
 $\text{MIN}(C2:C6) + \text{MAX}(C2:C6) + 81 - \text{STDEV.S}(B2:E4)$

$$3 + 314 + 81 - \sqrt{\frac{\sum_{i=1}^{12} (x_i - \bar{x})^2}{12-1}}$$

OPTIONS



Workbook Selection



The screenshot shows a web browser window with the address bar displaying "rks.grace.com/4290/workbooks". The page title is "Spreadsheets". Below the title is a table with two columns: "Name" and "Date Created". The table lists 11 spreadsheet files, all created on "Mar 25, 2024". The first two files are "Fruits3.xlsx" and the remaining nine are "DeltaDentalGraceTester.xlsx". Each row in the table is highlighted with a light blue background, indicating they are all selected. At the bottom left of the table area, there is a "Items Per Page:" label with a dropdown menu set to "10" and a pagination control showing "1 - 10 of 18". At the bottom right, there is a prominent orange button labeled "UPLOAD WORKBOOK".

Name	Date Created
Fruits3.xlsx	Mar 25, 2024
Fruits3.xlsx	Mar 25, 2024
DeltaDentalGraceTester.xlsx	Mar 25, 2024
DeltaDentalGraceTester.xlsx	Mar 25, 2024
DeltaDentalGraceTester.xlsx	Mar 25, 2024
DeltaDentalGraceTester.xlsx	Mar 25, 2024
DeltaDentalGraceTester.xlsx	Mar 25, 2024
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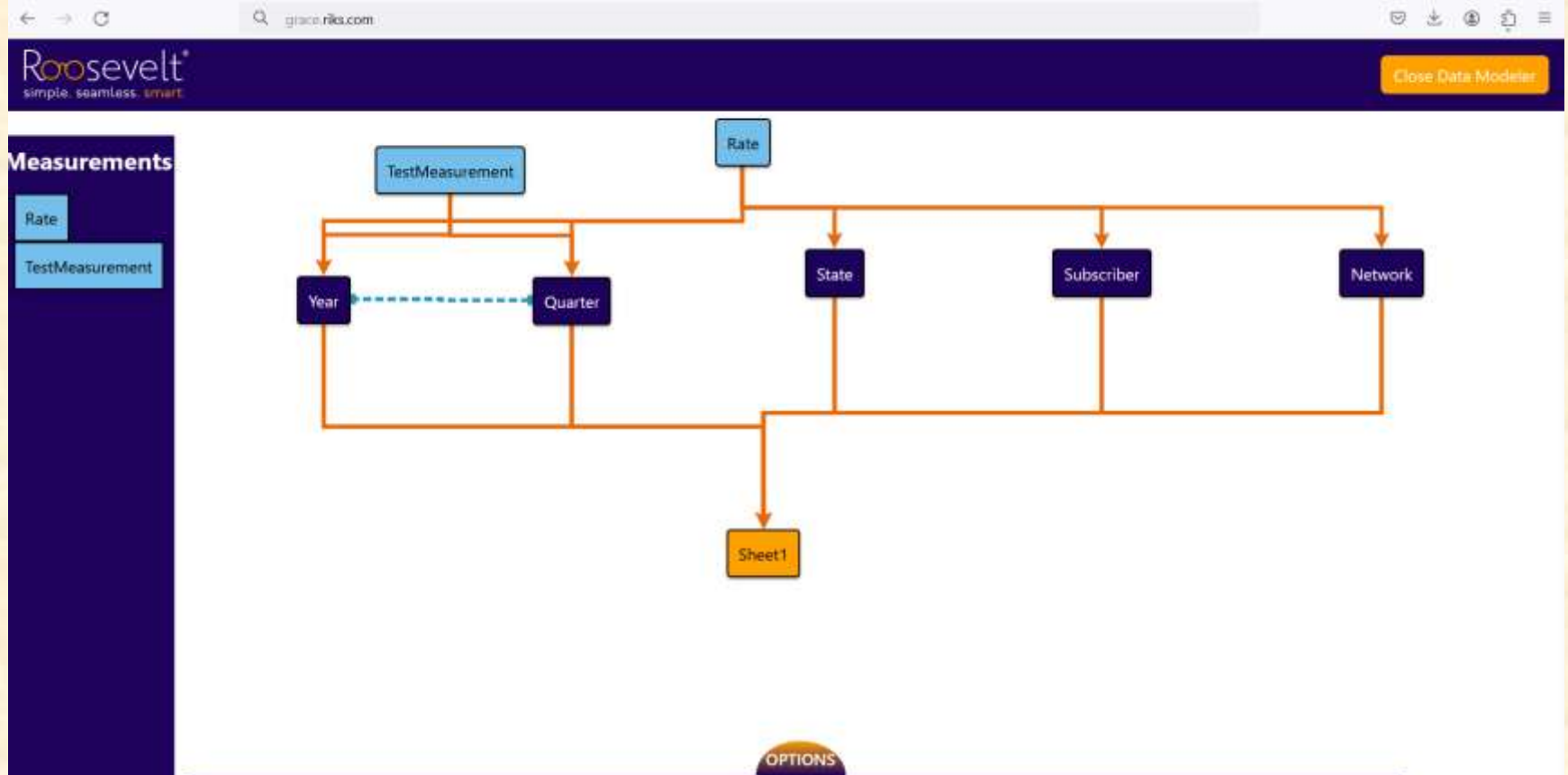
Items Per Page: 1 - 10 of 18

10

UPLOAD WORKBOOK



Data Modeler



What's left to do?

- Stretch Goals
 - Tree view workbook selection.
 - Working status of workbooks.
 - Advanced GRACE output.
 - Auto-save on Modeler.



Questions?

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