Beta Presentation
DSL IDE Test Harness

The Capstone Experience
Team Roosevelt Innovations Knowledge Science

Chase DeVries
Christian Lulaj
Jason Harris
Kristian Rica
Xinghe Zhang

Department of Computer Science and Engineering
Michigan State University
Fall 2022
Project Overview

• Broad Overview
  ▪ IDE, Language, Test Harness

• Testing Environment
  ▪ Generalized Formulas, User Input

• Testing Functionality
  ▪ Dynamic Forms, Responsive to Editing

• Microservice
  ▪ Receive Map of Label to Value, Calculate Results
System Architecture

Frontend
- Angular
- npm
- TypeScript
- HTML
- React

Browser

Backend
- Node.js
- API (REST)
- Java
- Roosevelt

Actuaries
Import Menu
Query Menu
Input Window
Results Window

Here are the Results

<table>
<thead>
<tr>
<th>Utilization</th>
<th>Crown</th>
<th>Cleaning</th>
<th>Extraction</th>
<th>X-ray</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.06</td>
<td>1.58</td>
<td>0.11</td>
<td>0.75</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BaseSeverity</th>
<th>Crown</th>
<th>Cleaning</th>
<th>Extraction</th>
<th>X-ray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premier</td>
<td>1200.00</td>
<td>60.00</td>
<td>140.00</td>
<td>65.00</td>
</tr>
<tr>
<td>PPO</td>
<td>1000.00</td>
<td>50.00</td>
<td>120.00</td>
<td>55.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Severity</th>
<th>Crown</th>
<th>Cleaning</th>
<th>Extraction</th>
<th>X-ray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premier</td>
<td>72.00</td>
<td>94.80</td>
<td>15.40</td>
<td>48.75</td>
</tr>
<tr>
<td>PPO</td>
<td>60.00</td>
<td>79.00</td>
<td>13.20</td>
<td>41.25</td>
</tr>
</tbody>
</table>
What’s left to do?

• Stretch Goals
  ▪ Create input fields for inputs with 3+ dimensional labels (Ex. Rate : Number[&Package, &Procedure, &Network])

• Other Tasks
  ▪ Adding a select all button to select all query measurements
  ▪ Adding a clear all/clear table button to the input window
Questions?