

**MICHIGAN STATE**  

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**UNIVERSITY**

# Beta Presentation

## Dynamic Visualization of Architecture

## Diagrams

## The Capstone Experience

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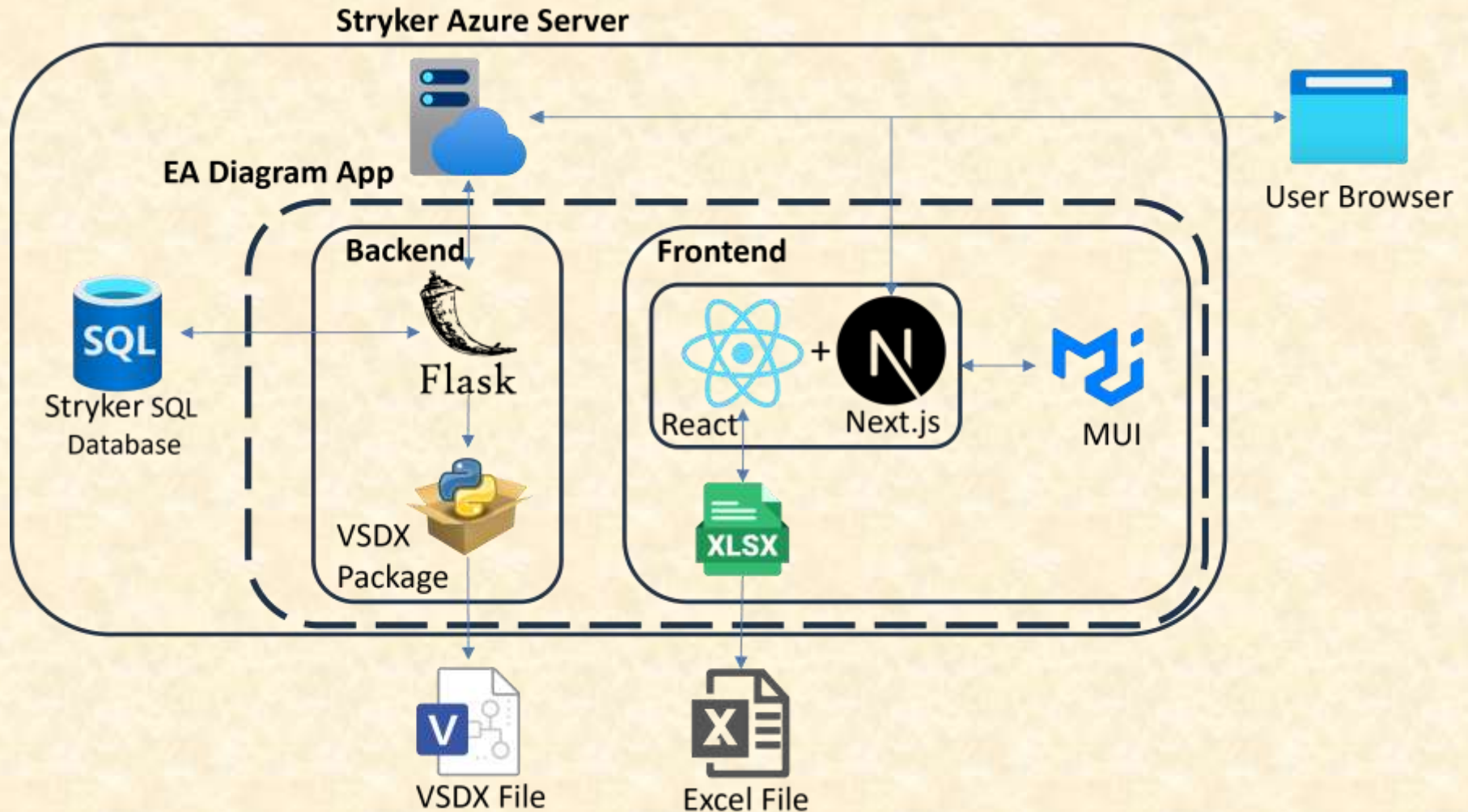
*From Students...  
...to Professionals*

# Project Overview

- Current architecture diagrams are done solely by hand by Stryker CoE architects, employees will be able to save time and mitigate mistakes.
- Diagrams can be extremely complex.
- Generate an optimized and functional diagram.
- Search results and options help build the architecture diagram.
- Value provided: 60 hours of time and around \$7,000 per month in savings to the business.



# System Architecture



# Category Search

The screenshot shows the Stryker Category Search web application. The browser address bar indicates the URL is localhost:3000/pageOne. The application header includes the Stryker logo and navigation links: Category Search, Text Search, Template Creator, About, and Index (Testing).

The main interface features a search form with the following fields:

- Source System: Azure Data Lake
- Target System: Target System
- Project Number
- Major Program

Below the search form, there are buttons for "SEARCH" and "RESET". To the right, there are buttons for "GENERATE EA DIAGRAM", "EXPORT ALL ROWS TO EXCEL", and "EXPORT SELECTED ROWS TO EXCEL".

At the bottom, there is a "RESULTS TABLE" with columns for ES Number, Integration Name, ID Number, Integration Pattern, Integrator Platform, Primary Source System, and Primary Target System. The table contains four rows of data:

ES Number	Integration Name	ID Number	Integration Pattern	Integrator Platform	Primary Source System	Primary Target System
ES1208	Integrates Sales Forecasting daily data from BI QDS to Salesforce.com		1-Way Realtime	SPF	Azure Data Lake	RFDC - Stryker Dig
ES1214	RHQ Finance user for reporting data to PWC		1-Way Scheduled	SPT	Azure Data Lake	PWC
ES1218	RHQ Finance user for reporting data to PWC		1-Way Scheduled	SPT	Azure Data Lake	PWC
ES1205	Integrates Sales Forecasting daily data from BI QDS to Salesforce.com		1-Way Realtime	SPF	Azure Data Lake	RFDC - Stryker Dig



# SQL Statement Search

Search

```
SELECT * FROM [dbo].[Catalog_ESI_Arch] WHERE [PrimarySourceSystem] = 'ERP - JDE (Medical)' AND [PrimaryTargetSystem] = 'SCADA - Medical K200' AND [ESINumber] = 'ES1-184' ORDER BY [ESINumber]
```

ES1 Results

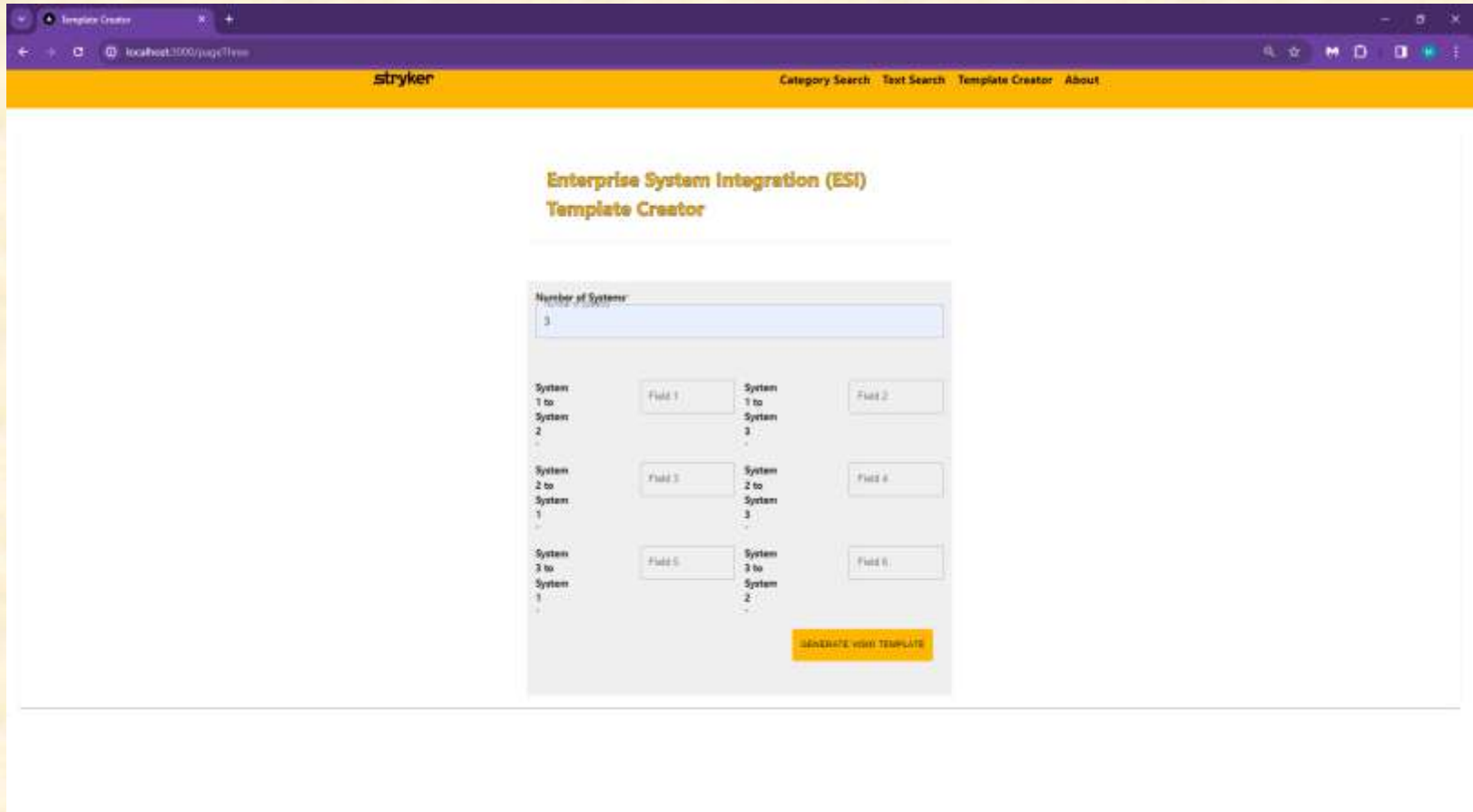
ES1 Number	Integration Name	ESINumber	Integration Pattern	Integration Platform	Primary Source System	Primary Target System
<input type="checkbox"/> ES1-184	Racine West Central Info Syst, JDE		2-way Restful	None	ERP - JDE (Medical)	SCADA - Medical K200
<input type="checkbox"/> ES1-184	Racine West Central Info Syst, JDE		2-way Restful	None	ERP - JDE (Medical)	SCADA - Medical K200

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GENERATE ARCH DIAGRAM GENERATE VISIO DIAGRAM EXPORT SELECTED ROWS TO EXCEL EXPORT ALL ROWS TO EXCEL



# Template Creator



# Webpage Diagram Generation



# What's left to do?

- Features
- Stretch Goals
  - Integration line elbows (90 degree turns rather than diagonal)
- Other Tasks
  - Deploy to Stryker's Azure platform
  - Clean up unused functions/code
  - Testing edge cases
  - UI refinement
  - Download Visio Diagram button bug





# Questions?

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