

**MICHIGAN STATE**  
**UNIVERSITY**

# Alpha Presentation

## Modern Online Analytical Processing Cube

### The Capstone Experience

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

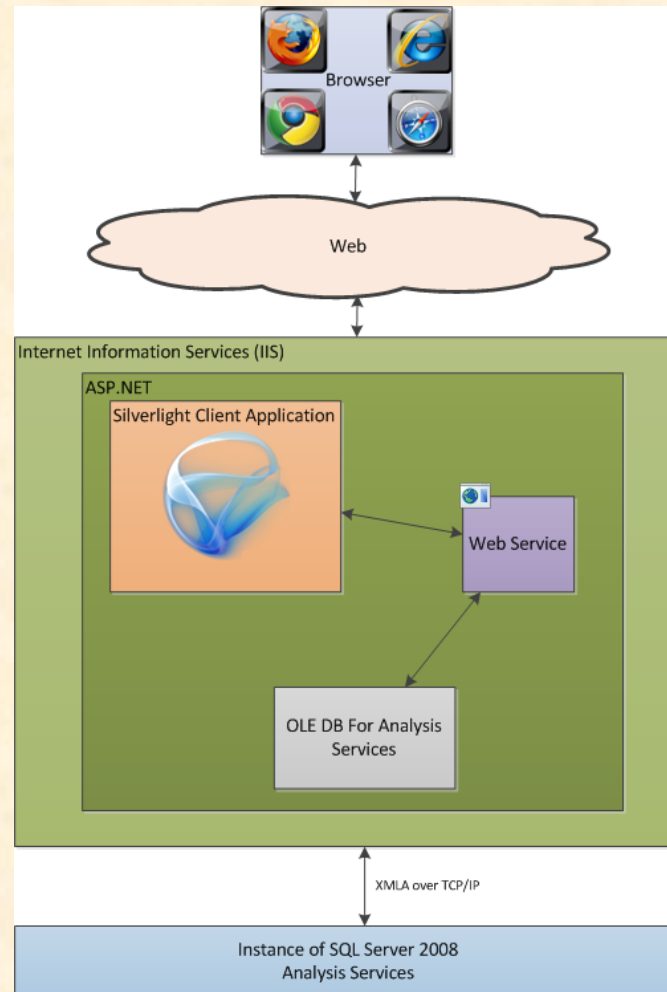
# Project Overview

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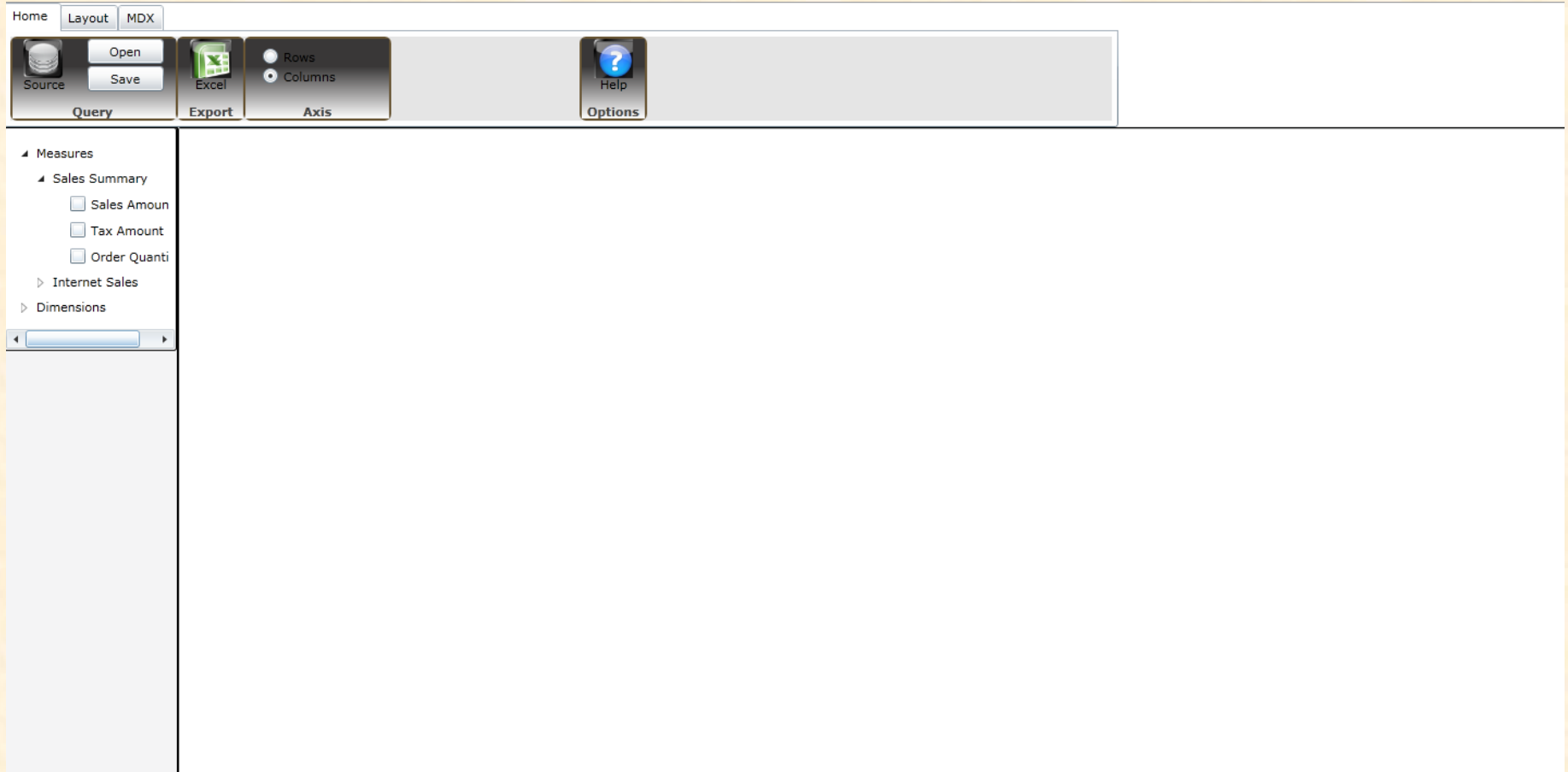
- Create a tool to quickly and efficiently query specific data amongst large databases to provide detailed and aggregated statistics
- Implement an OLAP cube as analysis object
- Create powerful, but easy to use GUI to display and manipulate OLAP cube



# System Architecture



# Initial User Interface Design



# Sample Ad Hoc Query

The screenshot displays an OLAP tool interface. At the top, there are tabs for 'Home', 'Layout', and 'MDX'. Below these are several functional buttons: 'Source' (with a database icon), 'Open' and 'Save' (for the query), 'Excel' (with an Excel icon), 'Rows' and 'Columns' (for axis configuration), 'Help' (with a question mark icon), and 'Options'. The main area is divided into a left sidebar and a central table.

**Measures:**

- Sales Summary
  - Sales Amount
  - Tax Amount
  - Order Quantity
- Internet Sales

**Dimensions:**

- Date
  - Calendar Year
  - Fiscal Year
- Geography

**Table:**

Level	Name	Value
0		
0	CY 2001	
0	CY 2002	
0	CY 2003	
0	CY 2004	
0	CY 2006	

# What's left to do?

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- Create data grid capable of displaying OLAP data
- Implement print, export and save functionality
- Fine tune ad hoc query generation
- Populate sidebar from cube metadata
- Finish UI design and get client signoff
- Graphing of data (time allowing)

