## Capstone 2023

## WHO?

NDSU

- FargoRate is a data-driven company focused on accurately ranking pool players in the billiards industry
- Handles over 20,000,000 games & 240,000 players worldwide
- Leading company in the industry

# WHAT?

- Wanted a test software to easily experiment with the core optimization program
- Created an integrated web-app tool that displays current and previous results from different optimization engines
- User specifies connection string and path to engine, optimization routines, and Qualified Type Name
- Data sent back and forth on SQL server and optimizes accordingly
- Updates web-app with new rating data

## WHY?

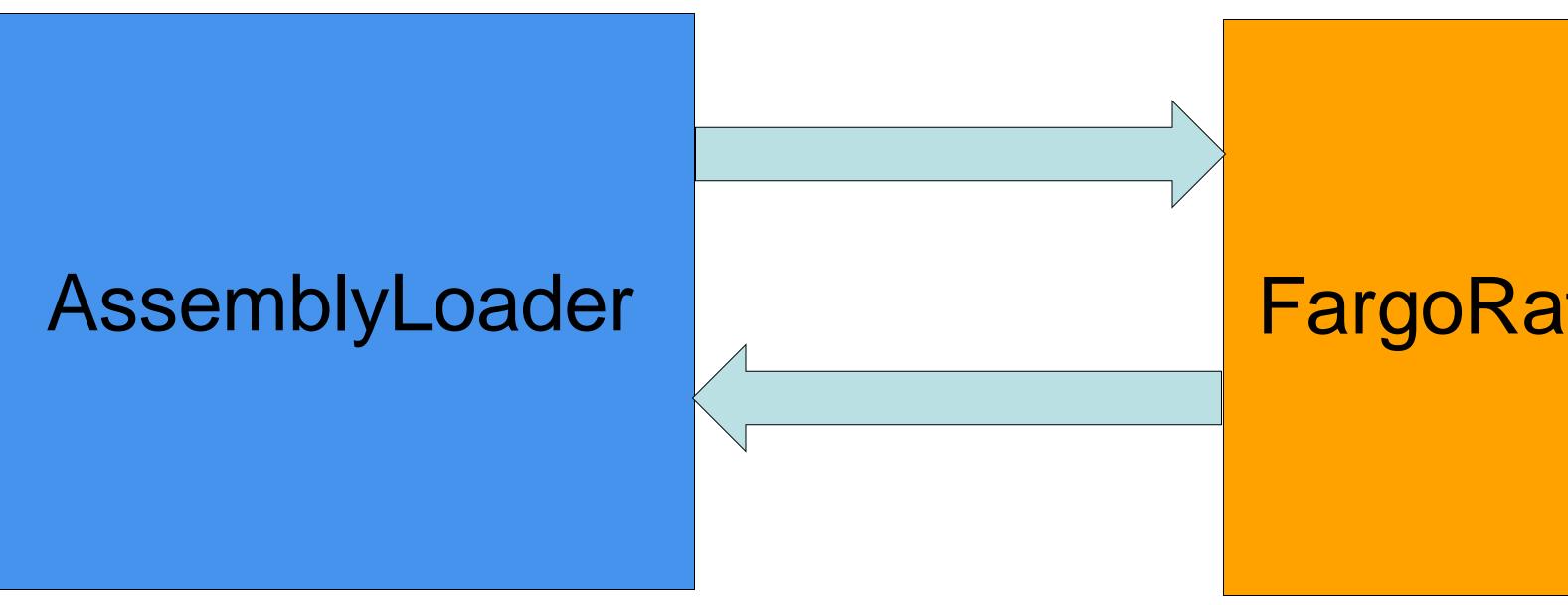
- Accurate ratings provide a way to properly match players together during competition
- Competitions, Leagues, and Tournaments rely on accurate ratings when making brackets
- A faster and more detailed output allows FargoRate to locate issues easier
- Current optimization run can take 6 8 hours, test software allows them to more easily find ways to improve this time

## **Test-Run Optimization Software** Team Members: Josh Betz, Lucas Posey, Jackson Thurn, Karter Wasberg, Joseph Weis Sponsor: FargoRate

# How does it work?

### 1. Web-App takes input, sends to AssemblyLoader





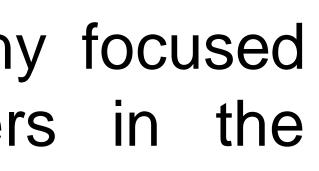
3. FargoRate-Capstone executes SQL query on desired data and sends it back to AssemblyLoader

4. AssemblyLoader loads the Optimization engine and runs it on the test data

5. New ratings are updated for the test data. Information gets displayed on the Web-App



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### 2. AssemblyLoader loads the given test run, sends SQL data to FargoRate-Capstone



## FargoRate-Capstone