

Project Plan Presentations Today

September 23, Anthony 1279

- Team AppDynamics
- Team Auto-Owners
- Team Dow
- Team Herman Miller
- Team Bosch



MICHIGAN STATE

UNIVERSITY

Project Plan

BizIQ Flow Map Using Sequential Analytics Data

The Capstone Experience

Team AppDynamics

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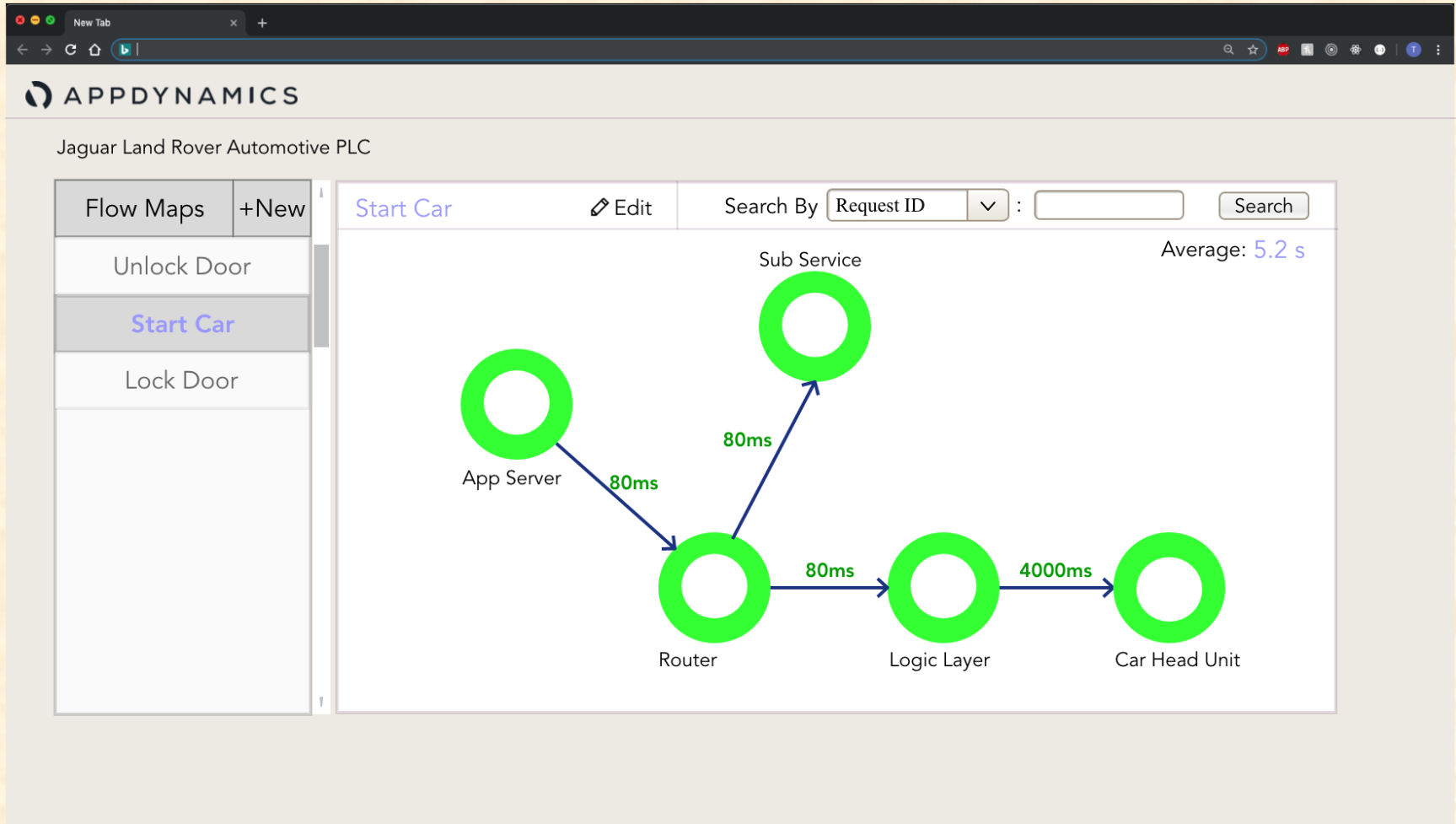
*From Students...
...to Professionals*

Functional Specifications

- Allow users to create Flow Maps representing distinct transactions
- These flows come from various types of data
- Transactions visualized in a way that individuals with differing levels of technical knowledge can understand.
- The main purpose of the visualizations is to monitor impact on end users.



Screen Mockup: View Flow Map



Screen Mockup: Create New Flow Map

The screenshot shows a web browser window with the AppDynamics logo and the text "Jaguar Land Rover Automotive PLC". On the left, a sidebar menu contains "Flow Maps" and "+New", with a sub-menu listing "Unlock Door", "Start Car", "Lock Door", and "New Flow" (highlighted). The main area is titled "New Flow" and includes an "Edit" icon, a "Search By" dropdown, and a "Search" button. At the bottom, a "Flow Creator" section contains a "Node Name" field with "App Server", a "Delete" button, a "Flow Name" field with "I", an "Add" button, and a "Create Flow" button. A "Query" field contains the SQL statement: "SELECT eventTimestamp, vin, requestid, component FROM components".

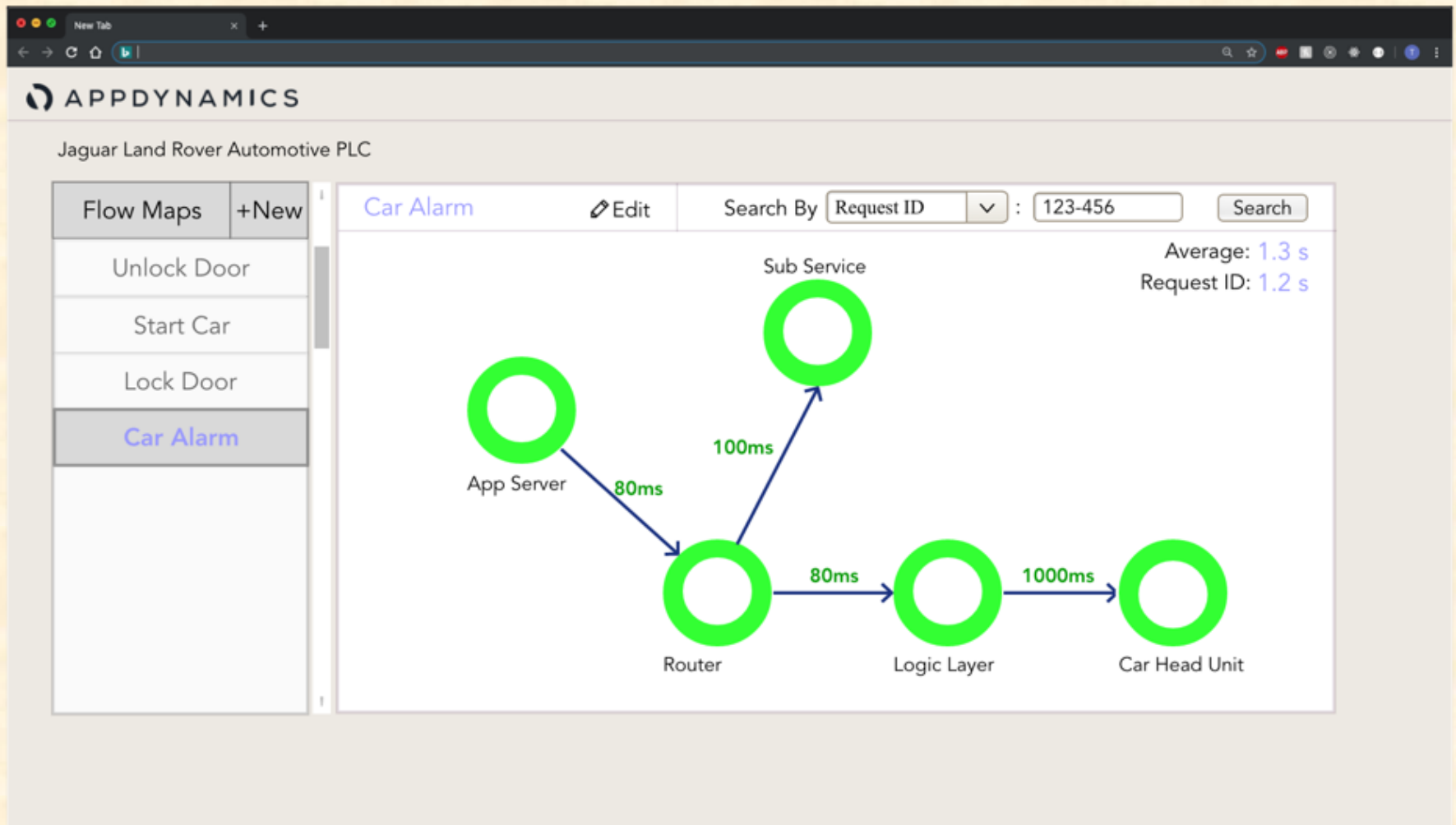


Screen Mockup: Flow Map Creation

The screenshot shows a web browser window with the AppDynamics logo and the text "Jaguar Land Rover Automotive PLC". The interface is divided into a left sidebar and a main workspace. The sidebar contains a "Flow Maps" section with a "+New" button and a list of flow maps: "Unlock Door", "Start Car", "Lock Door", and "New Flow" (which is highlighted). The main workspace is titled "New Flow" and includes an "Edit" button and a search bar. In the center of the workspace is a large green circle labeled "App Server". At the bottom of the workspace is a "Flow Creator" section with the following fields and buttons: "Node Name: Router" (with a "Delete" button), "Flow Name: |" (with an empty input field), "Query:" (with an empty input field), "Add" (button), and "Create Flow" (button).



Screen Mockup: Search A Flow Map



Design Specifications

- Development of a user interface that is easy to navigate
- Provide a way for users to create and save a flow map
- Generalize the application to any number of customers
- Search functionality for certain processes within transactions

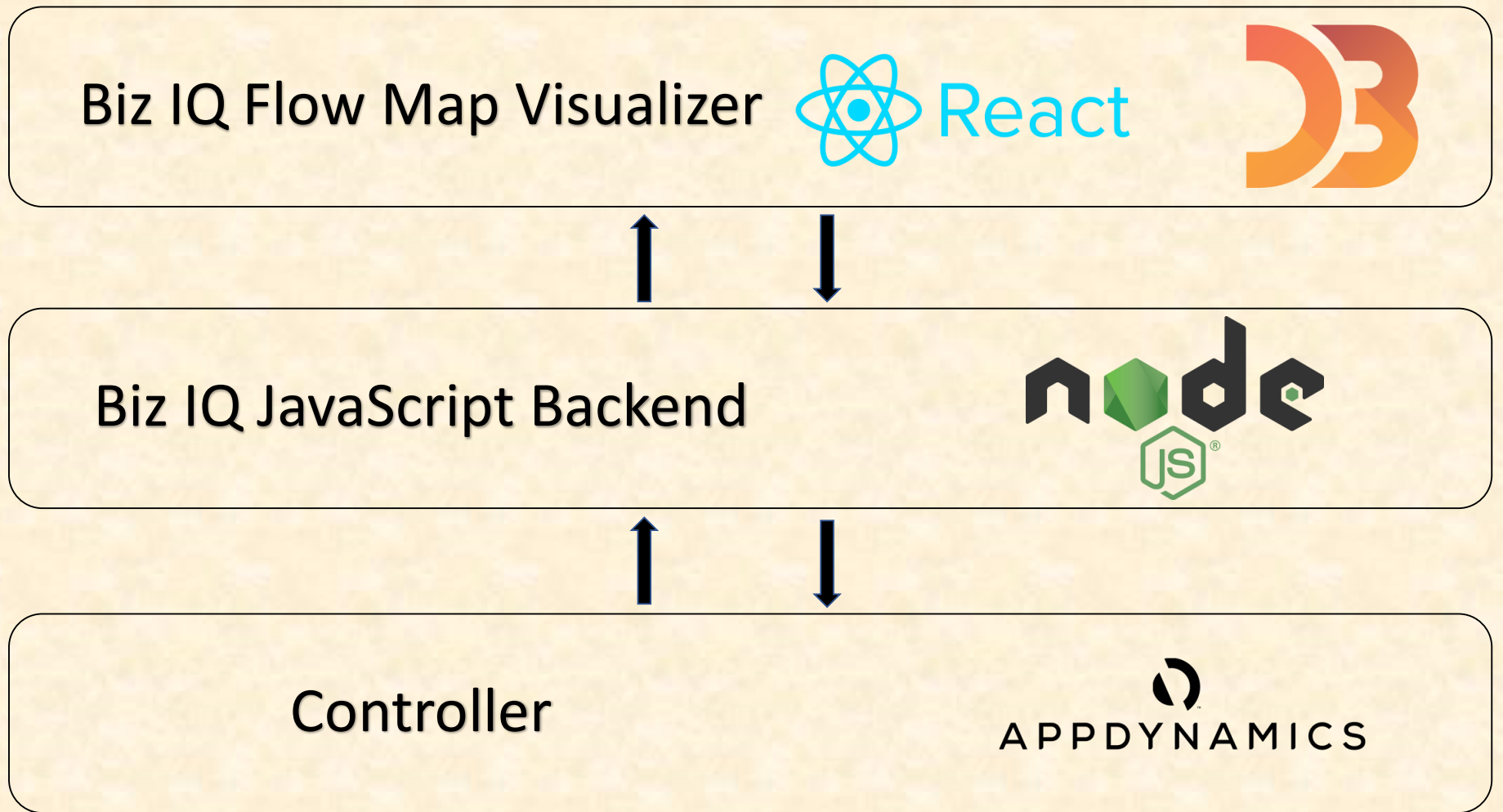


Technical Specifications

- D3.js - creating flow maps
- HTML/CSS
- React
- AppDynamics Controller
 - ADQL – Query Database
- Node.js - back end



System Architecture



System Components

- Hardware Platforms
 - iMacs
- Software Platforms / Technologies
 - Node.js
 - D3.js
 - React
 - AppDynamics Query Language (ADQL)
 - AppDynamics APM and Analytics
 - Github.com



Risks

- Dynamic Flow Map -- Priority: **High**, Difficulty: **Low**
 - Unable to create dynamic flow map using D3.js
 - Mitigation: Contact Google's team from last year.
- API Integration -- Priority: **High**, Difficulty: **Low**
 - Unable to integrate AppDynamics API with Node.js
 - Mitigation: Research API documentation and communicate with client.
- D3/React Compatibility -- Priority: **Medium**, Difficulty: **Medium**
 - Both DOM manipulators
 - Mitigation: Disabling DOM manipulation in React



Questions?

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