

MICHIGAN STATE
U N I V E R S I T Y

Beta Presentation

Ford Mobility Product Metrics

The Capstone Experience

Team Ford

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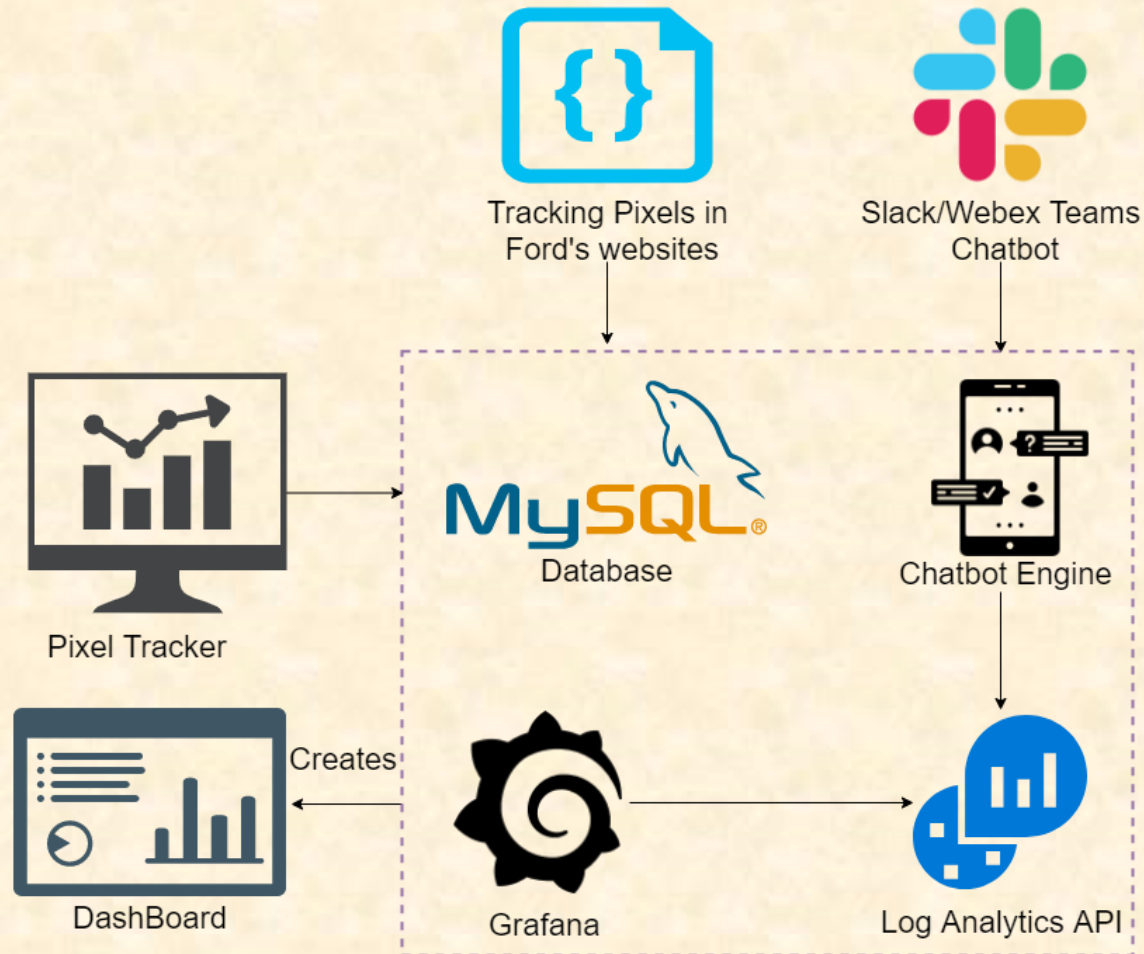
From Students...
...to Professionals

Department of Computer Science and Engineering
Michigan State University
Fall 2019

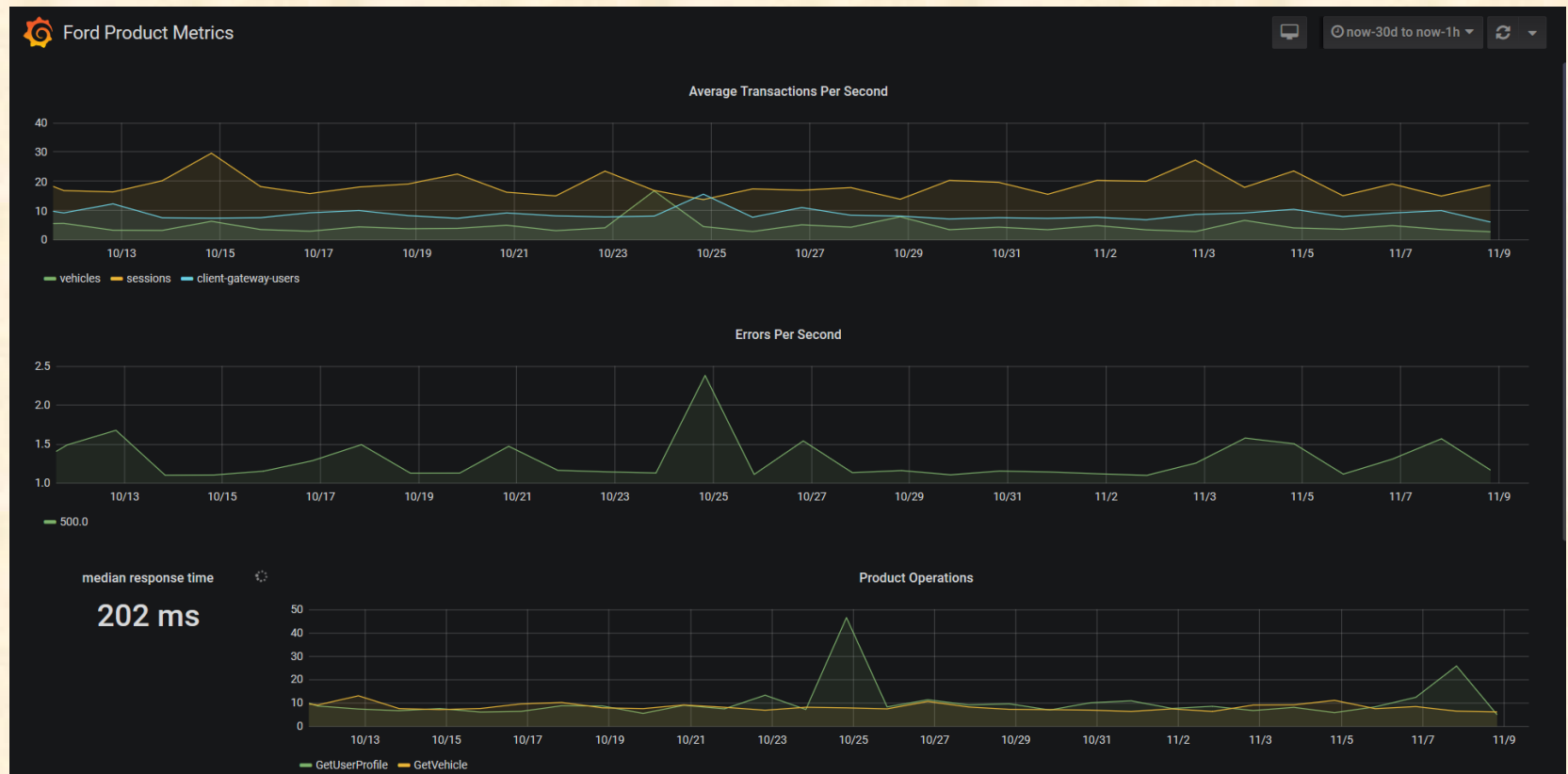
Project Overview

- Monitor Ford's products closely to store metrics to give a better customer experience
- WebEx Teams and Slack chatbots provide product metrics updates
- Created a dashboard to visualize those metrics

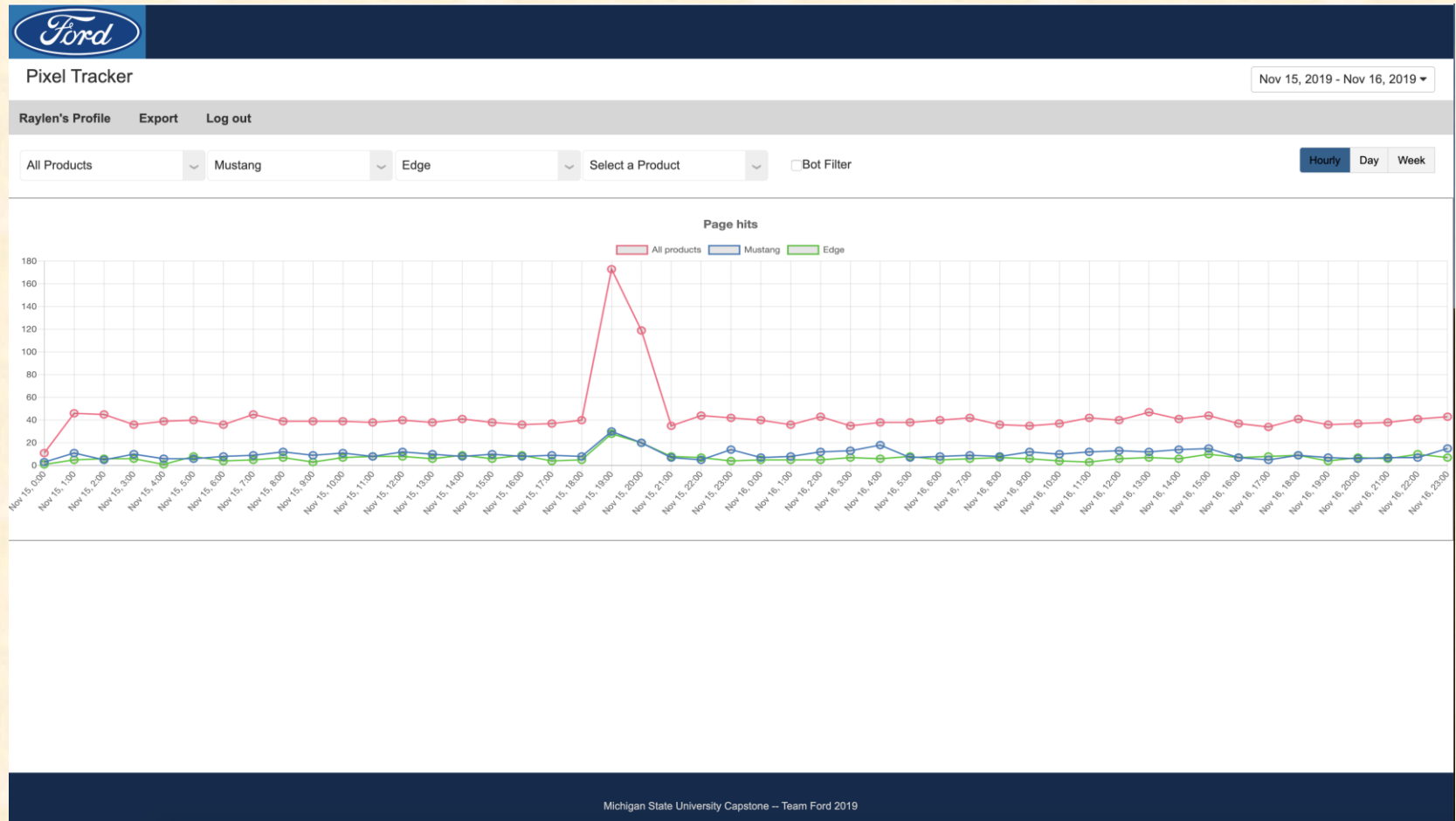
System Architecture



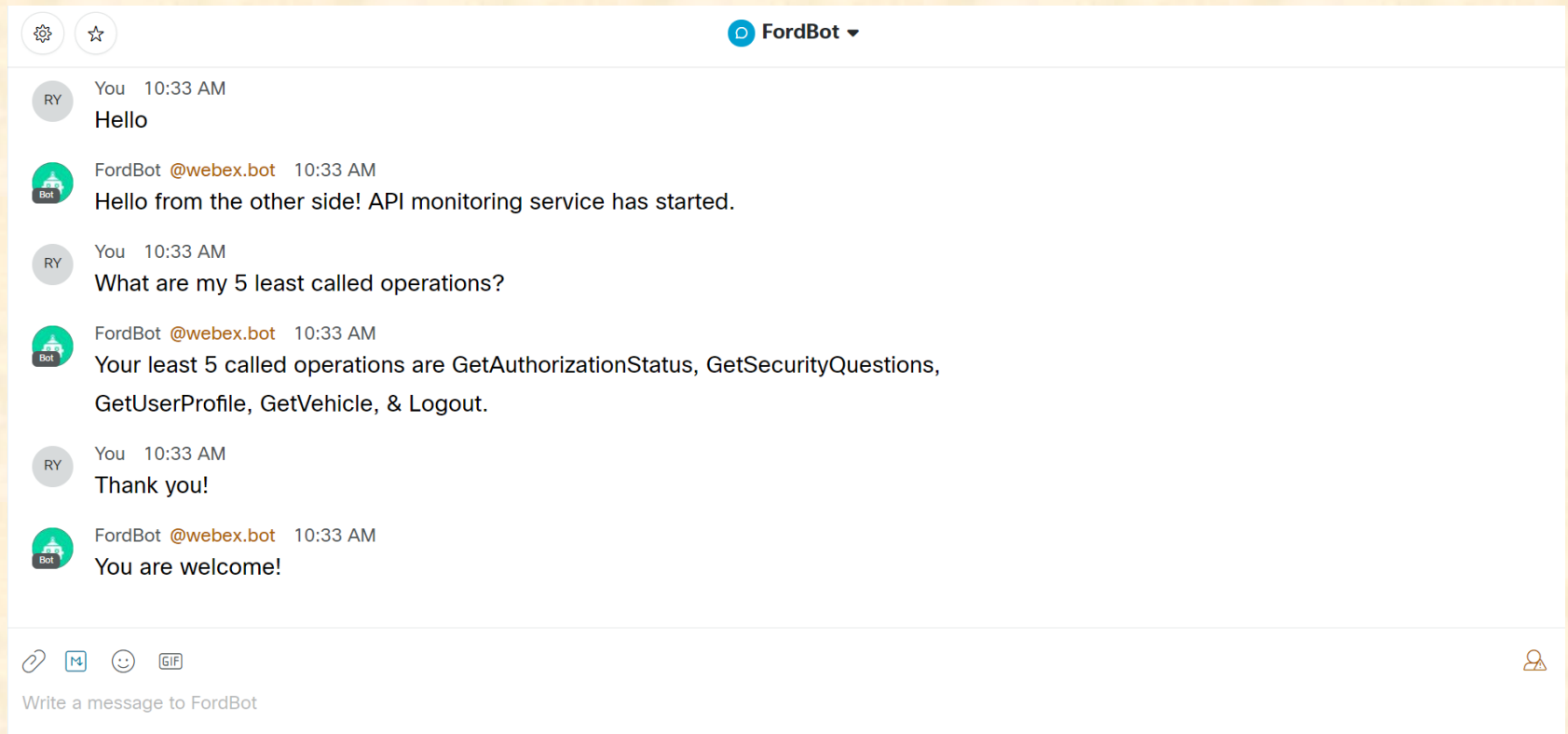
Ford Product Metrics Dashboard



Pixel Tracker



WebEx Teams Chatbot



Slack Chatbot

The screenshot displays a Slack workspace for 'Team Ford'. On the left sidebar, the 'Channels' list includes '# general' and '# questions', and the 'Direct Messages' list includes 'Slackbot'. Under the 'Apps' section, 'Ford-Assistant' is highlighted. The main chat area shows a conversation with the 'Ford-Assistant' bot. The chat history includes a greeting from the bot at 9:21 AM, a question from 'Romi' at 9:22 AM, and a detailed response from the bot at 9:22 AM providing a summary of product usage over the past 4 weeks. The summary lists hits for four different weeks: 10-14-19 (202342 hits), 10-21-19 (4143268 hits), 10-28-19 (3655417 hits), and 11-04-19 (4199843 hits). Following this, 'Romi' asks for the least called operation, and the bot responds with 'GetAuthorizationStatus' and 16478 hits in the past 24 hours. 'Romi' then asks for the average response time for 'GetAuthorizationStatus', and the bot responds with 270.31 ms. The conversation ends with 'Romi' saying 'Thank you!' and the bot replying 'You are welcome!'. At the bottom, there is a text input field with the placeholder 'Message Ford-Assistant' and a send button.

Team Ford ▾
● Romi

Jump to...

Threads

Channels

- # general
- # questions
- + Add a channel

Direct Messages

- ♥ Slackbot
- + Invite people

Apps

- **Ford-Assistant**
- Google Calendar
- + Add apps

Ford-Assistant ☆

Messages About

Today

Ford-Assistant APP 9:21 AM
Hello from the other side! API monitoring service has started.

Romi 9:22 AM
How is my product usage trending week over week?

Ford-Assistant APP 9:22 AM
Here is a summary of product usage for all products over the past 4 weeks:

- For the week of 10-14-19, there were 202342 hits.
- For the week of 10-21-19, the number of hits increased to 4143268 hits.
- For the week of 10-28-19, the number of hits decreased to 3655417 hits.
- For the week of 11-04-19, the number of hits increased to 4199843 hits.

Romi 9:22 AM
What is my least called operation?

Ford-Assistant APP 9:22 AM
Your least called operation is GetAuthorizationStatus with 16478 hits in the past 24 hours.

Romi 9:22 AM
What is the average response time for GetAuthorizationStatus?

Ford-Assistant APP 9:22 AM
The average response time for the operation 'GetAuthorizationStatus' is 270.31 ms.

Romi 9:22 AM
Thank you!

Ford-Assistant APP 9:22 AM
You are welcome!

Message Ford-Assistant



What's left to do?

- Confirm that all requirements are met
- Add more information to the chatbot reports (stretch goal)
- Add the ability to allow users to update/delete existing tracking pixels

Questions?

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