

MICHIGAN STATE
UNIVERSITY

Alpha Presentation

Live Platform Real-Time Occupancy Status

The Capstone Experience

Team Herman Miller

Chris Chen

Pooja Ippalapelli

Emma Taylor



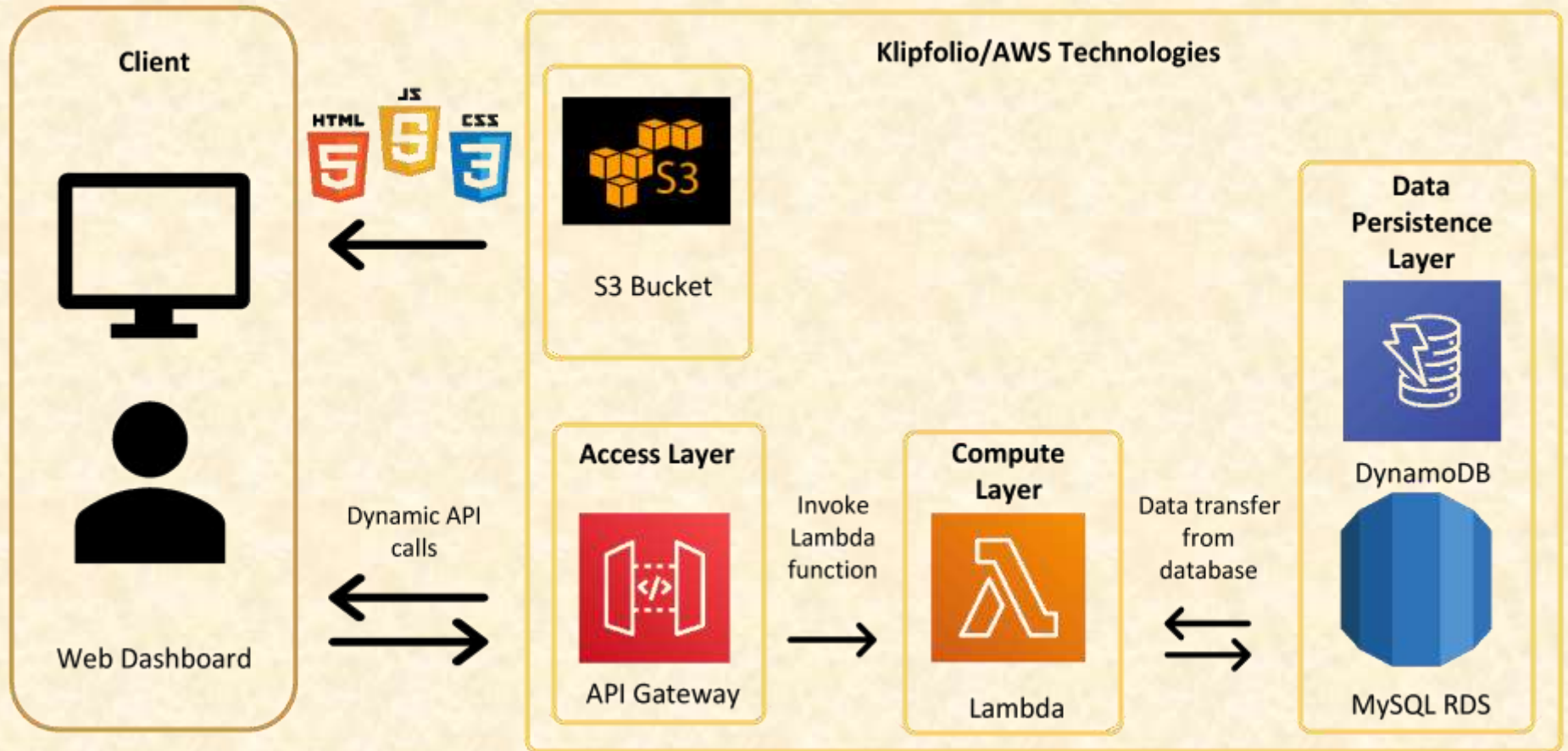
*From Students...
...to Professionals*

Department of Computer Science and Engineering
Michigan State University
Fall 2020

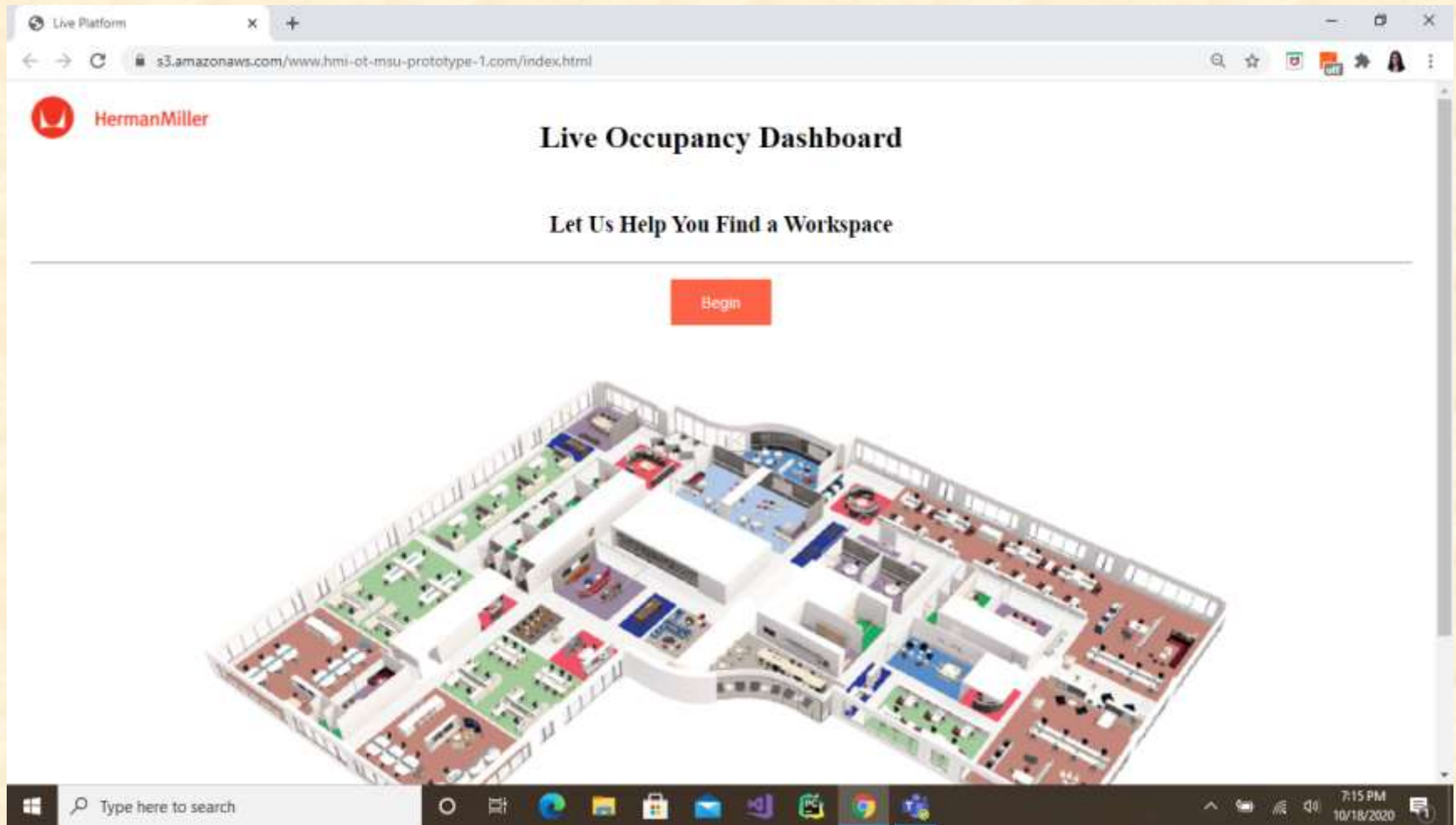
Project Overview

- Display desk occupancy on a dashboard given a custom floor plan
- Update dashboard in near real time to show current occupancy status
- Show points of interest with a legend

System Architecture




Home



Initial Floor

Live Platform

s3.amazonaws.com/www.hmi-ot-msu-prototype-1.com/floorplan.html?

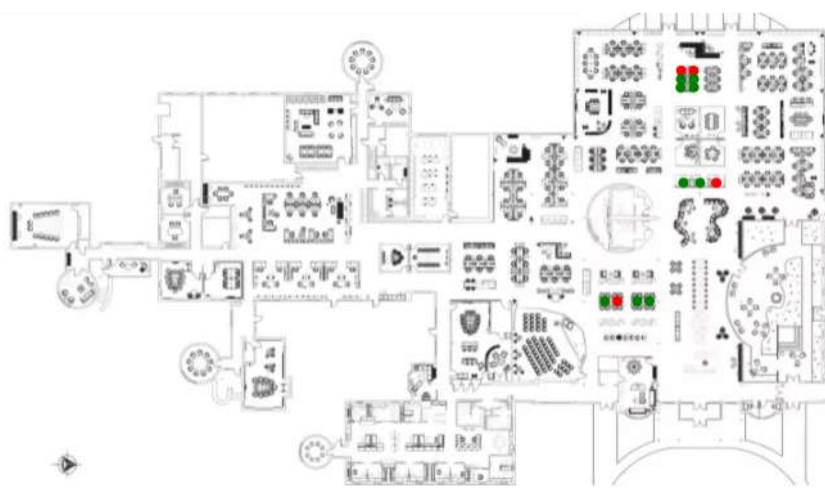
 **HermanMiller**

Live Occupancy Dashboard

Floor: Front Door

Entrance/Exit Elevator Cafeteria Restroom Break Room

☐ Show points of interest on map

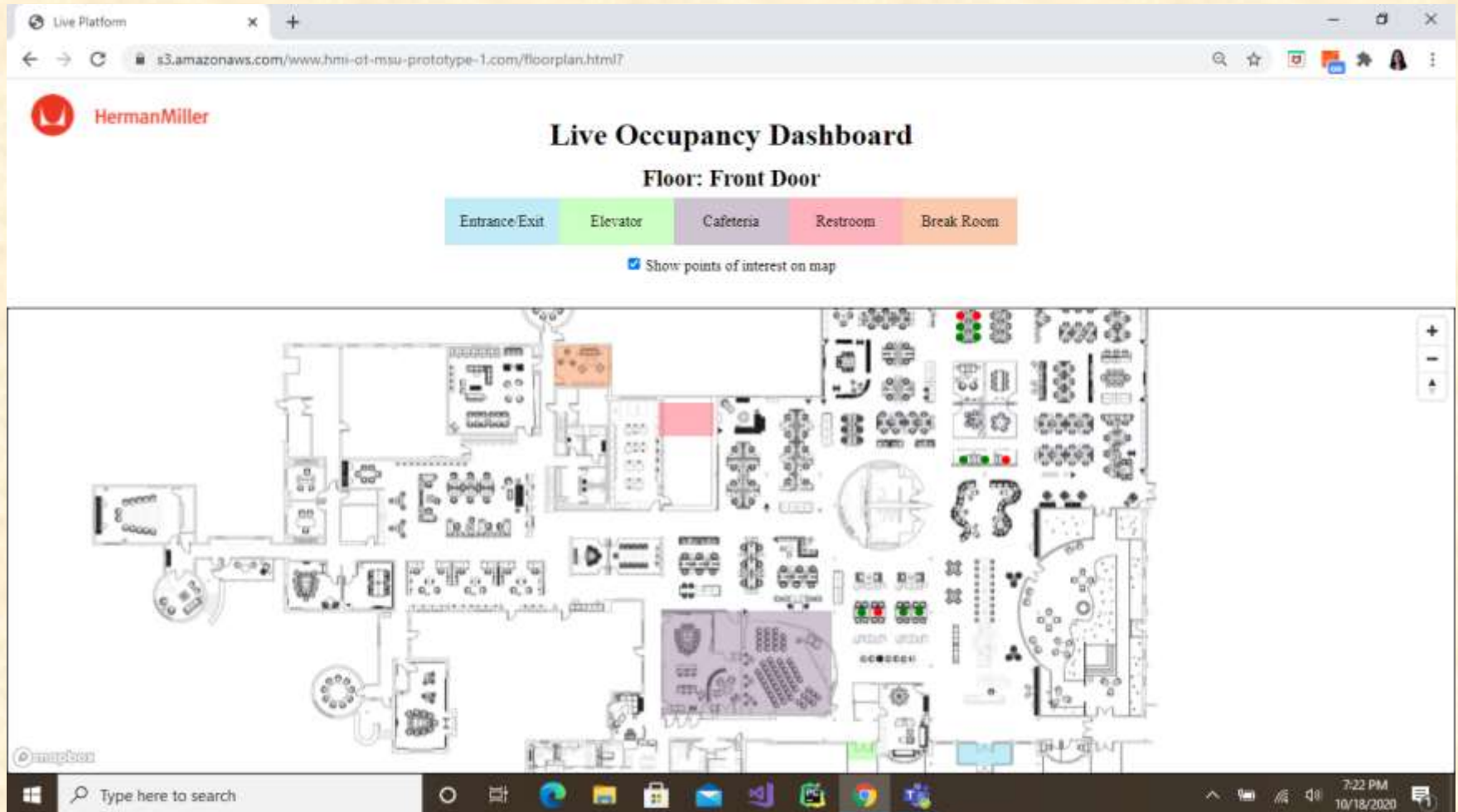


mapbox

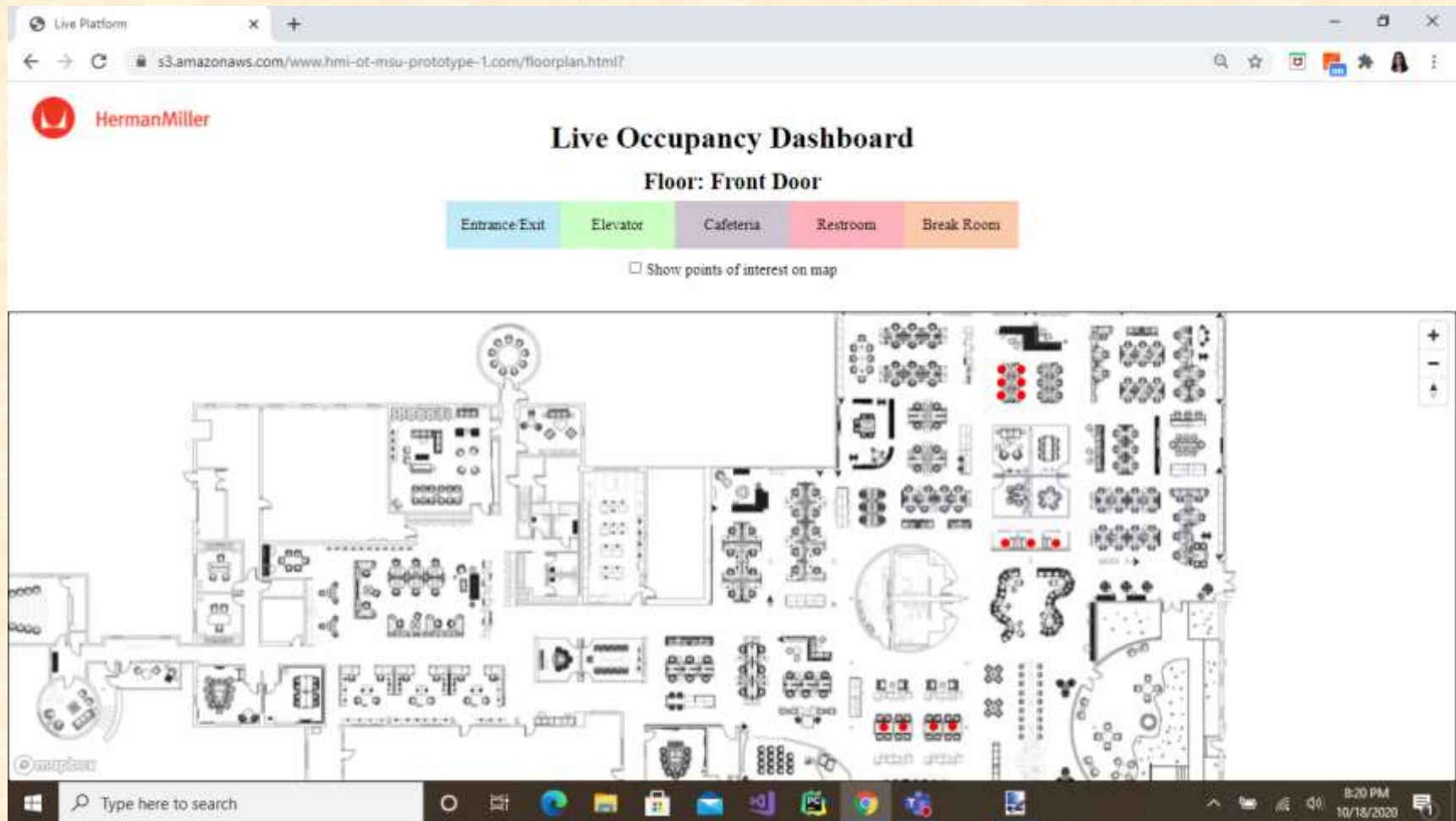
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Floor with Points of Interests



Floor with Occupied Desks



What's left to do?

- Structure status to update in near real-time
- Transfer individual APIs to a single API
- Provide overall occupancy level for floor
- Add secure socket layer
- Allow customers to apply branding to website



Questions?

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