



Alpha Presentation

Weather Monitoring and Impact Assessment

The Capstone Experience

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

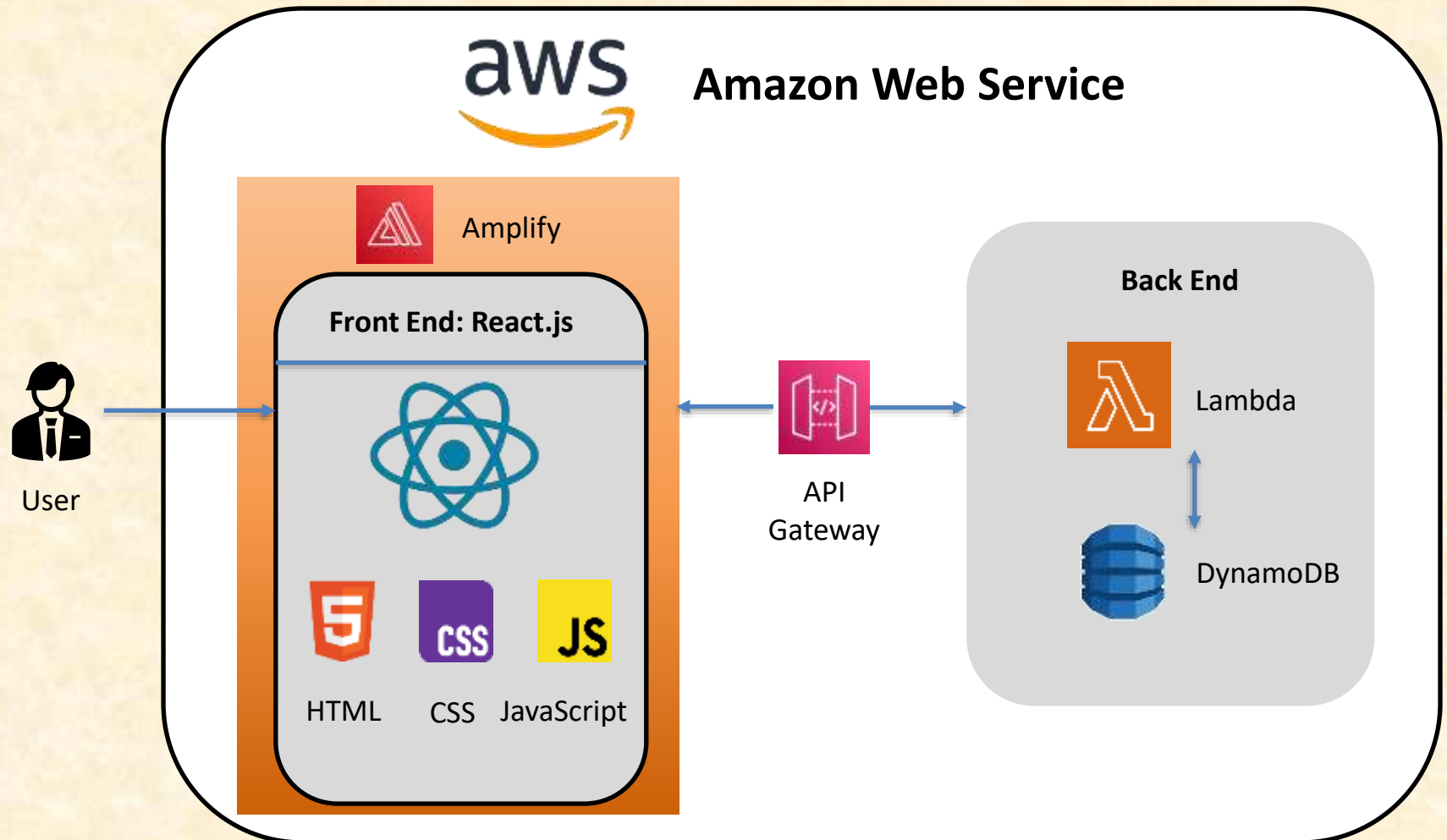
Fall 2025

Project Overview

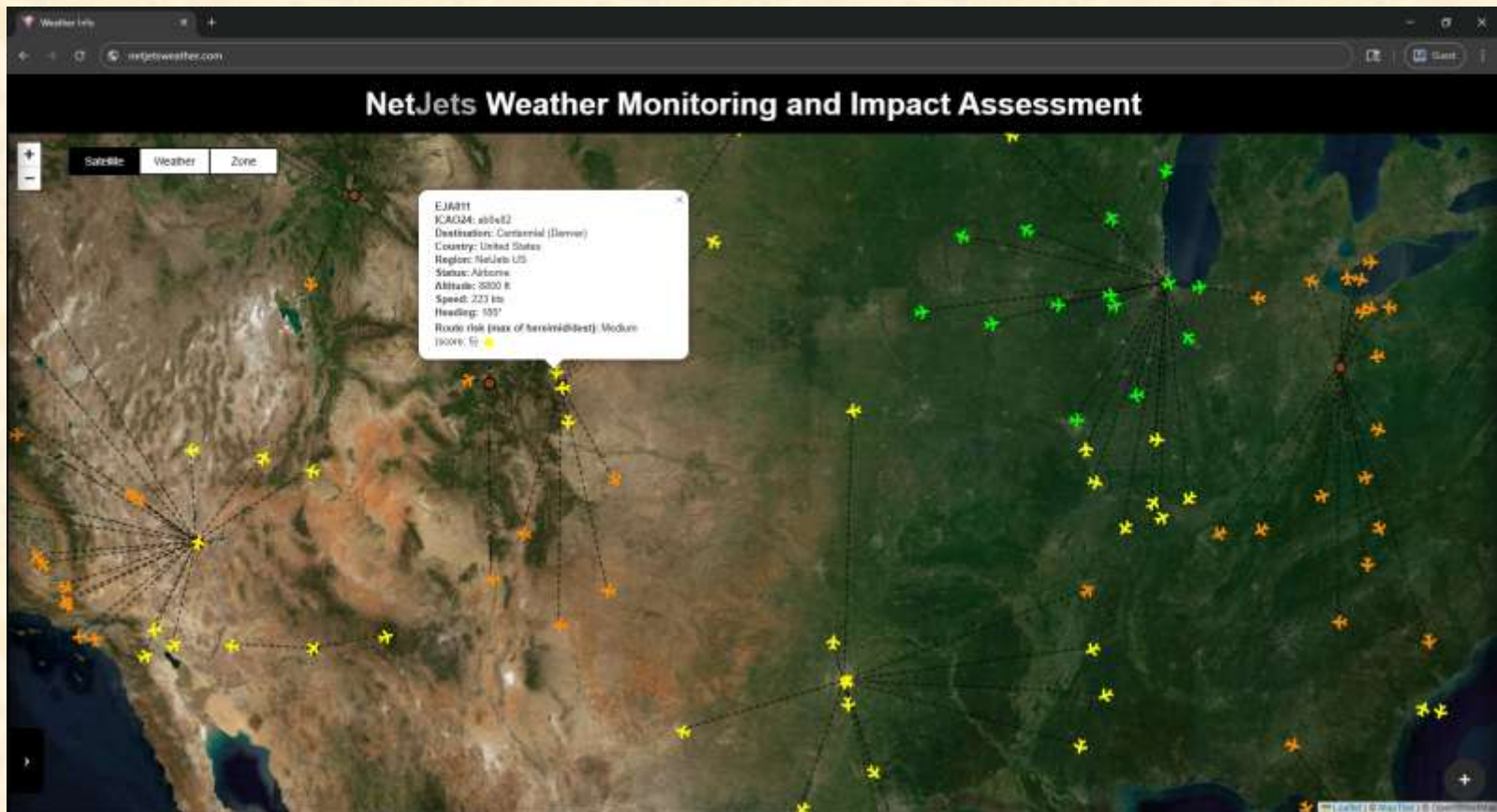
- Monitor live flights for potential risks and analyze historical flights to assess unforeseen weather events
- Interactive web based application that displays weather, flights, risk zones, and plane risk levels
- Historical records of flight paths with weather displayed along the routes with playback



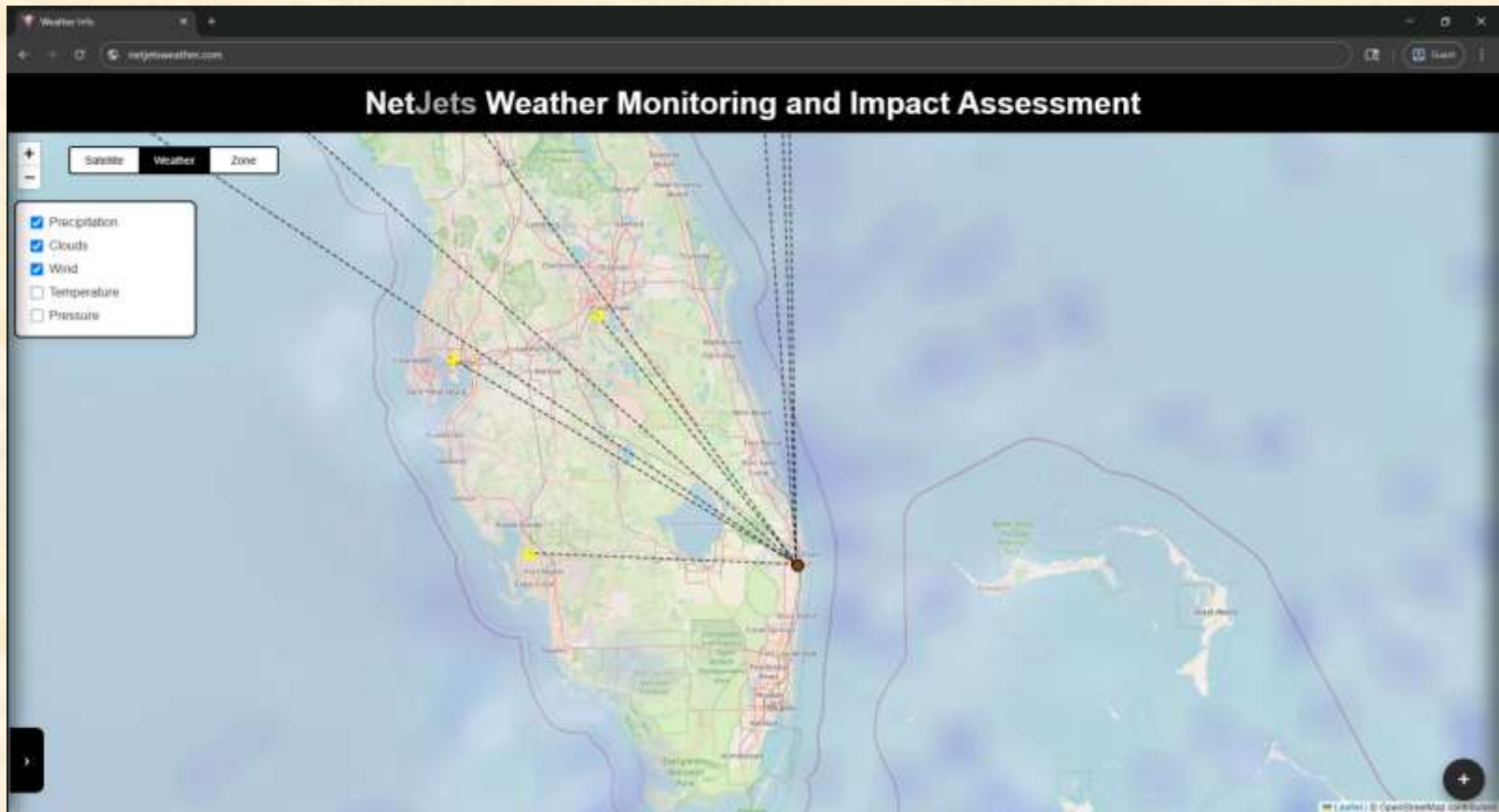
System Architecture



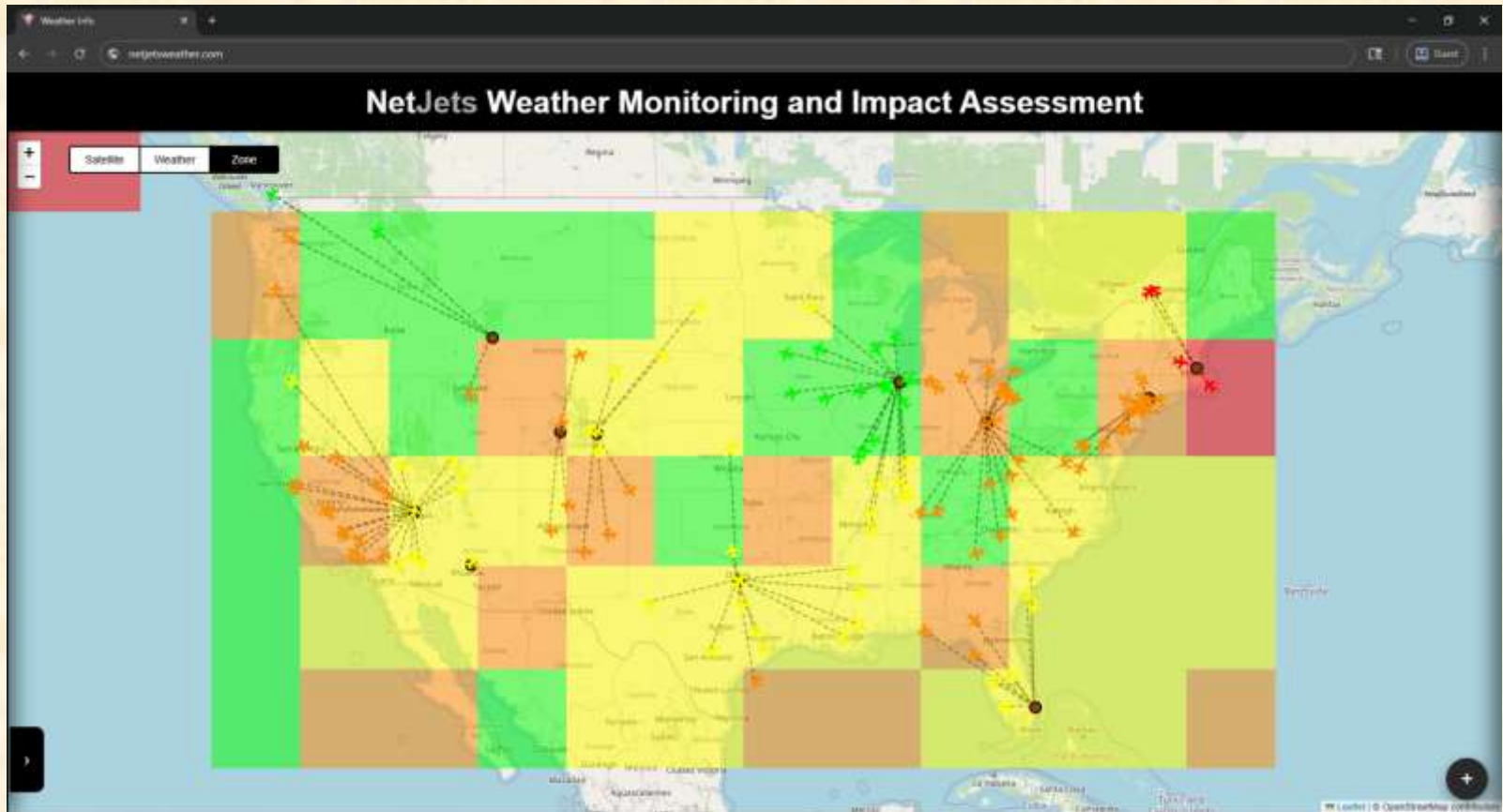
Satellite View



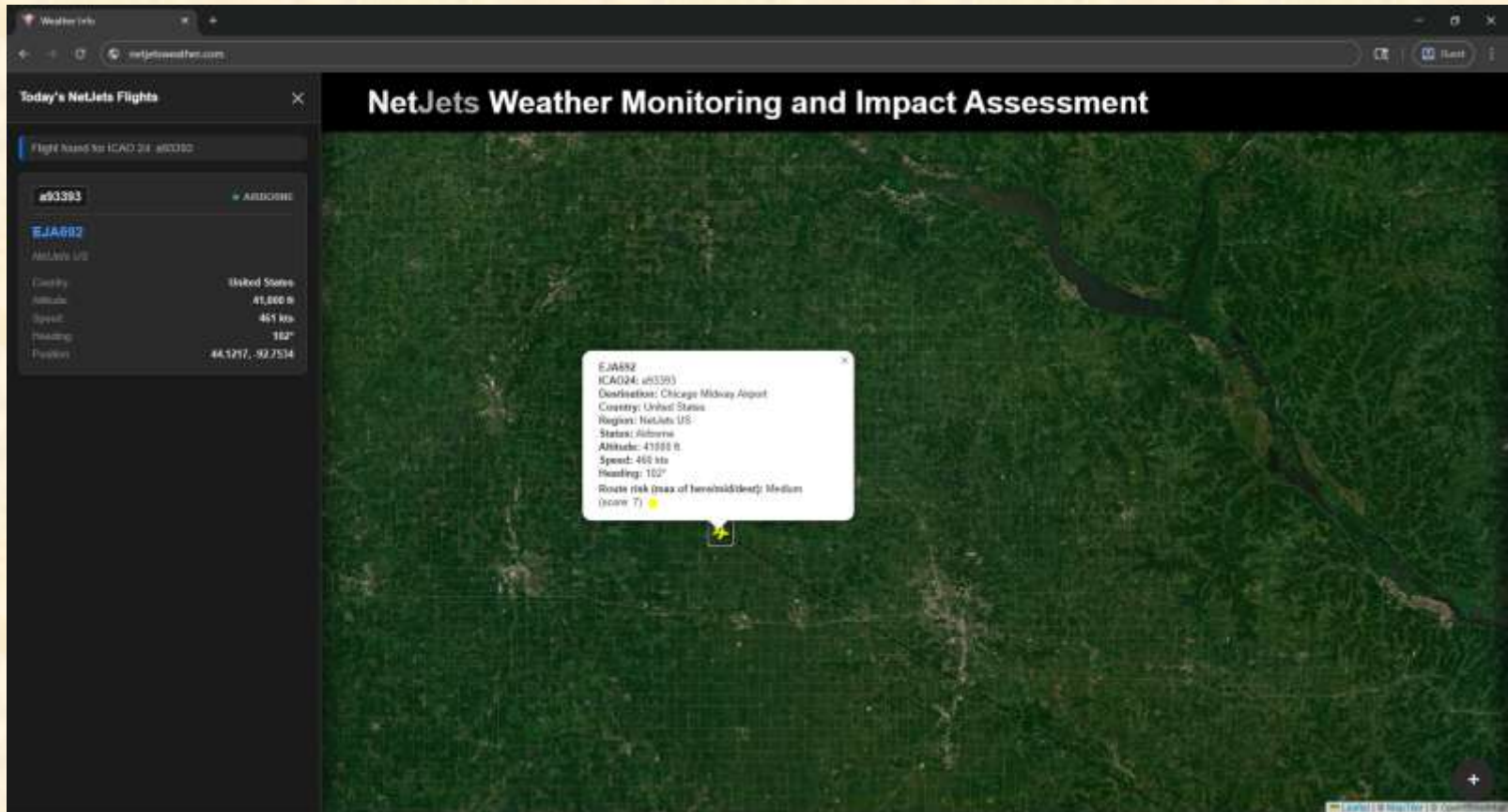
Weather View



Zone View



Flight Search View



What's left to do?

- Get historical records connected with our front end
- Create playback feature for historical record data
- Optimize flight route assumption algorithm
- Allow risk factor customization on front end
- Ensure compatibility with NetJets' database
- Allow filtering by risk level



Questions?

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