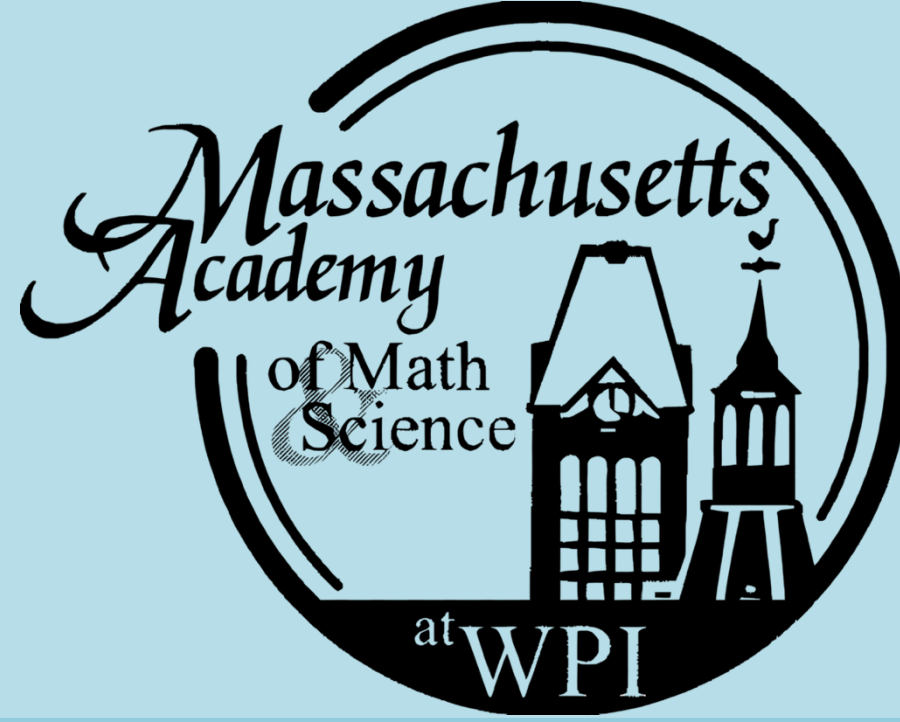


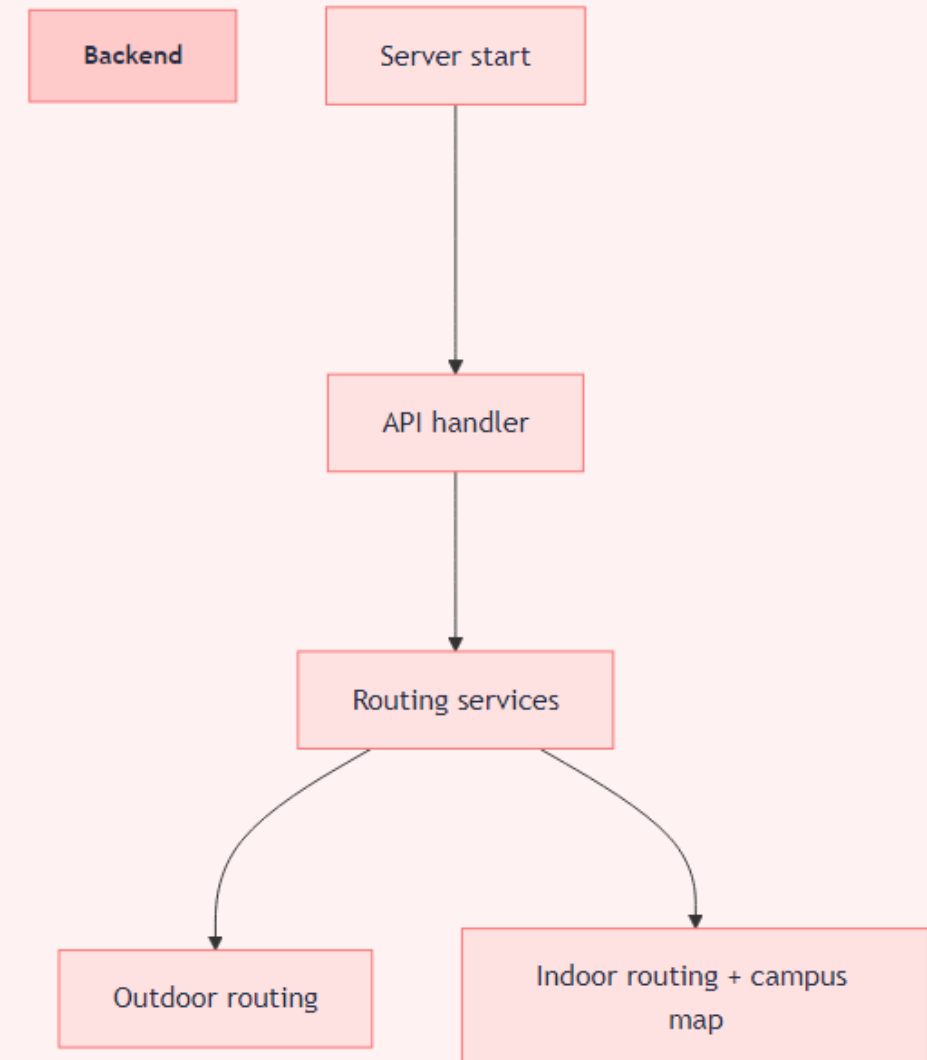
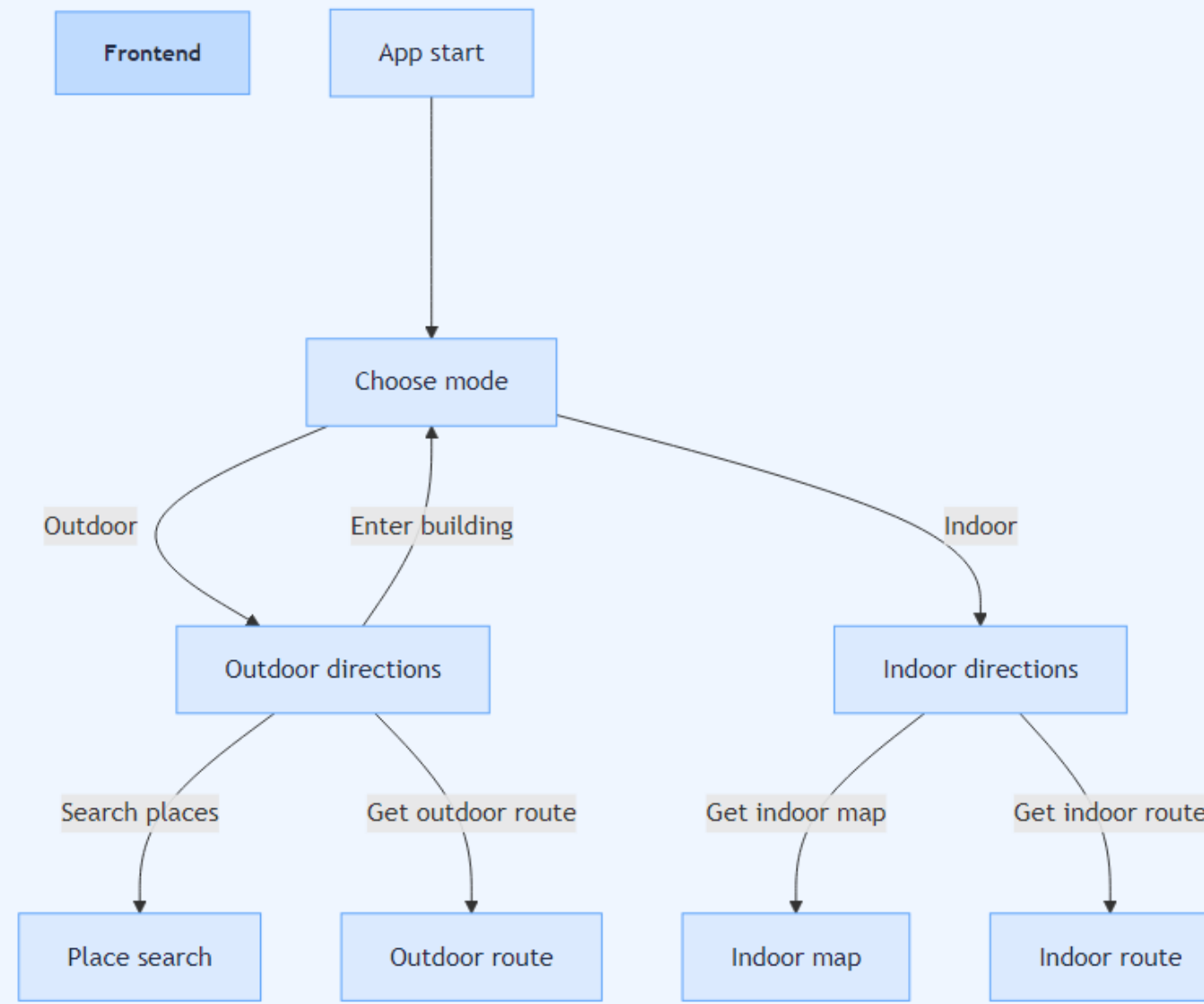


# MapNav

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## System Architecture



## What is MapNav?

## Why did we create MapNav?

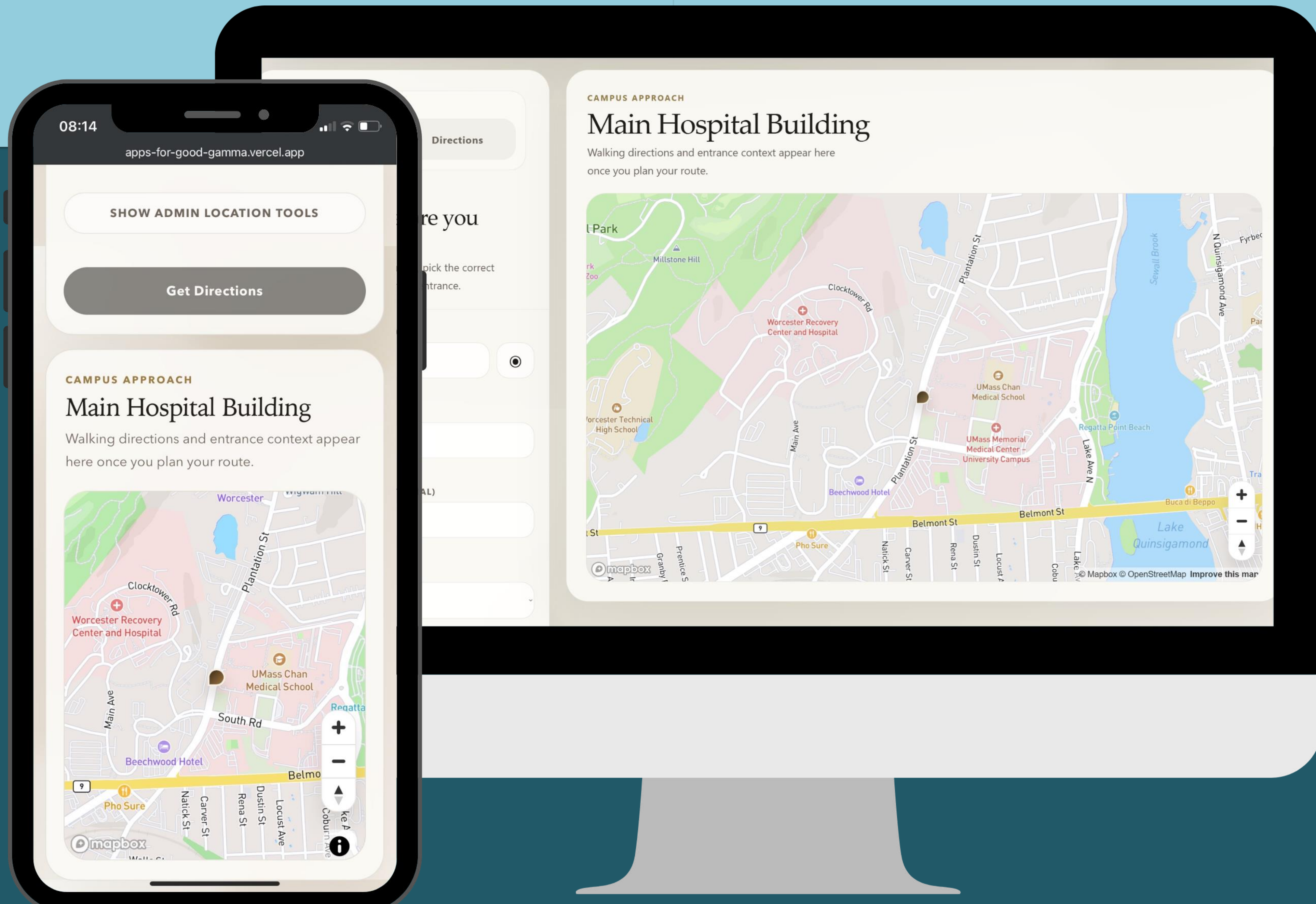
- MapNav is a organizational navigation service.
- Provides navigation to an organization campus.
- Allows point-to-point navigation on supported campuses.
- Only supports UMass Memorial Hospital as of now.
- Easy user interface on devices of all kinds.

- Navigating around a campus is difficult the first few visits.
- Allow ease in navigation for tourists/visitors/first-time guests.

## Main Algorithms

**Map Display:** Mapbox API is used to fetch and then display the shortest path from place to place, similar to Google Maps.

**A\*:** A pathfinding algorithm used on the backend to find the shortest path from point to point.



## Future Additions

- Support for more organizations.
  - Hospitals, colleges, places of work, etc.
- Automatic map generator
  - Generates indoor campus map automatically.
  - Prevents manual creation.