SDDEC23-11

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Home Finder

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Motivation

Searching for a new home online can be daunting with most applications focusing on the property. Our application focuses on the individual by taking their commonly visited locations and frequencies to generate a heatmap of ideal areas to live.

Users and Uses

Homeseekers-Guest:
- Do not have an account
- Generate a heatmap

Homeseekers-Account Holders:
- Generate and save heatmaps
- Recall previously generated heatmaps

Design Requirements

Functional

- Mutable map display
- Object overlay
- Authentication

Non-Functional

- Readable and Navigable
- End-to-end data encryption
- Low latency

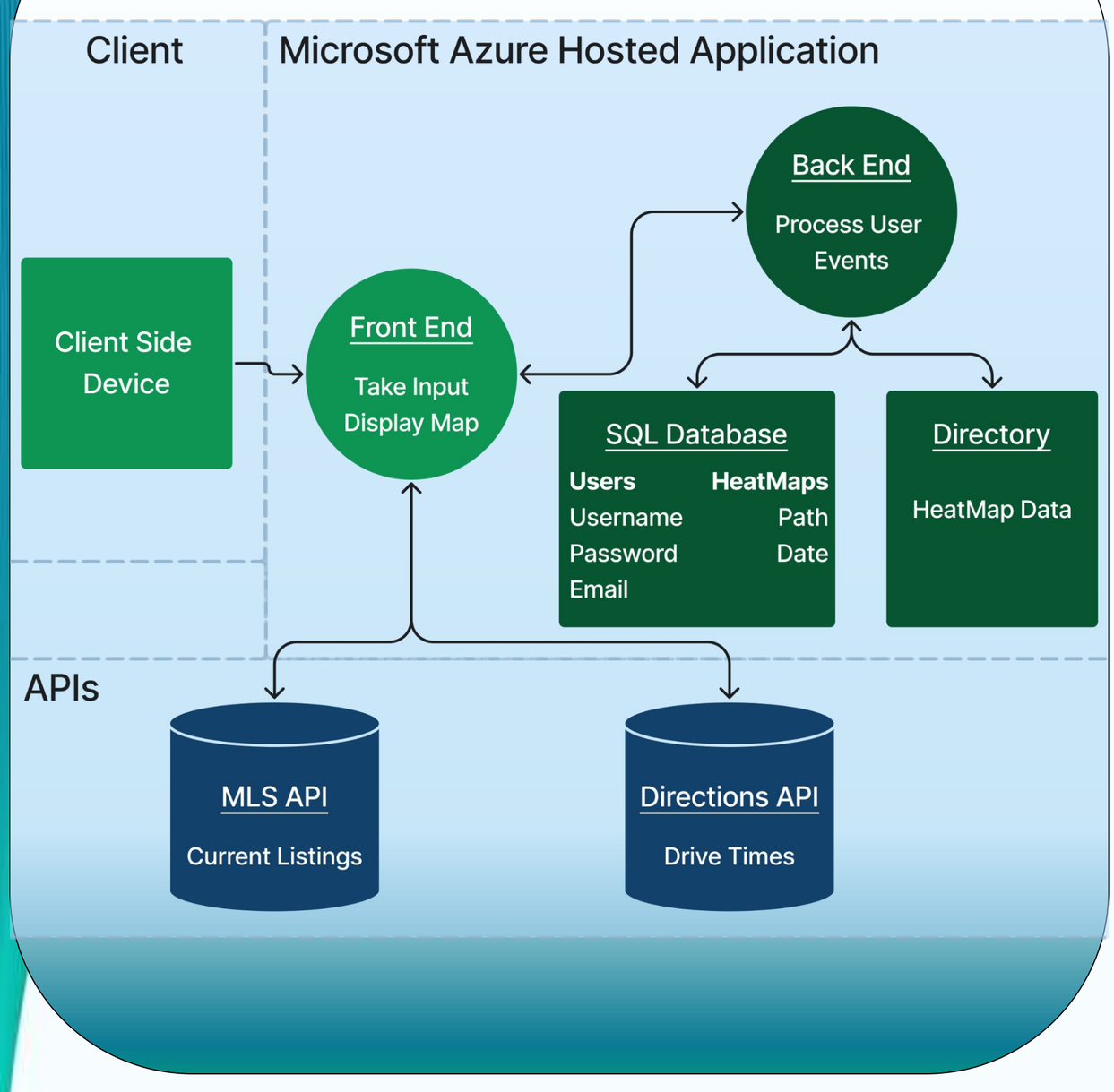
Constraints

- Small fee when utilizing APIs
- Monthly Fee for cloud server hosting
- Limited security controls over cloud server

Operating Environment

- Web App running on Azure Cloud server
- Objects stored in SQL db.
- Larger Data sets stored on directory as JSON files.

Design Approach



Technical Details

Front End
- Designed in VS Code
- Coded in HTML, CSS, and JavaScript
- BrowserStack used for testing

Back End
- Designed in VS Code
- RestfulIAPI Based
- Coded in Java
- Spring framework for data storage, database mapping, and API control
- JUnit and Mokito used for testing

Languages
- Java
- HTML
- CSS
- JavaScript

Libraries
- Hibernate

Frameworks
- Spring
- JUnit5
- Mokito

Testing

Front End
- Browser Stack
- Postman

Back End
- JUnit
- Mokito

Project Resources

- API Keys
- Azure cloud based hosting application
- ISU GitLab Repository
- VS Code

Engineering Standards

- IEEE 802.11 (WIFI)
- IEEE 802.3 (Ethernet)
- IEEE 4003 (Global Navigation System)
- AES (HTTPS encryption standard)