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Final Project Documentation

**1. Introduction**

**GasMate App Overview**

GasMate is designed to help users find the cheapest gas prices near their location “quickly and efficiently”. By leveraging real-time data and user-friendly mobile technologies, GasMate provides up-to-date information that helps drivers save money on fuel.

**Objectives**

* Provide a dynamic map view showing nearby gas stations and current prices.
* Offer a list view with detailed information about gas stations.
* Allow users to view comprehensive details about selected gas stations.
* Enable users to mark gas stations as favorites for easy access.
* Summarize gas station data with average prices and lowest prices.

**2. Feature Descriptions**

**Dynamic Map View**

* Displays a map centered on the user's current location.
* Shows pins marking nearby gas stations with current prices.
* Allows searching for locations and updating the map dynamically.

**List View**

* Provides a scrollable list of nearby gas stations.
* Each entry shows the price, distance, and additional details.
* Users can navigate to the detailed view by tapping on a gas station.

**Detail View**

* Offers comprehensive details about a selected gas station.
* Includes prices for different types of fuel, address, and more.
* Users can add the gas station to their favorites.

**Favorites View**

* Displays a list of gas stations marked as favorites.
* Allows easy access to the user's preferred gas stations.

**Summary View**

* Provides an overview of gas station data.
* Shows the total number of gas stations, average prices, and the lowest prices for each type of fuel.

**3. Screenshots**

**Home Screen (Map View)**

* This screen displays a map with pins marking the locations of nearby gas stations.
* Users can search for a location or tap on pins to see gas prices.
* The search button allows users to search for a new location and dismisses the keyboard after the search.

A map with red circles and white text

Description automatically generated

**List View Screen**

* Provides a detailed list of nearby gas stations.
* Each entry shows the gas station's name, fuel prices, and address.
* Users can tap on an entry to view more details about the gas station.

A screenshot of a phone

Description automatically generated

**Detail View Screen**

* Displays detailed information about a selected gas station.
* Includes prices for different types of fuel and other relevant information.
* Users can add the gas station to their favorites for quick access.

A screenshot of a phone

Description automatically generated

**Favorites View**

* Shows a list of gas stations that the user has marked as favorites.
* Each entry provides quick access to the detailed view of the favorite gas stations.

A screenshot of a phone

Description automatically generated

**Summary View**

* Provides a summary of the gas station data.
* Includes the total number of gas stations, average prices, and the lowest prices.

A screenshot of a phone

Description automatically generated