# Functional:

* Search Functionality
  + Users shall be able to search for fuel stations based on specific criteria such as location or fuel type.
* Price Comparison
  + The system shall provide users with the ability to compare fuel prices across different nearby fuel stations by listing from cheapest to expensive
* Historical Data
  + The system shall maintain historical data of fuel prices for analysis and reporting purposes.
* Multi-Platform Support
  + The system shall be accessible and functional across multiple platforms, including web browsers, mobile devices, and possibly dedicated mobile applications.
* User Account Management
  + Users shall have the ability to update their account information.
* Integration with Navigation Services
  + The system may offer integration with navigation services to provide directions to selected fuel stations.
* Fuel Type Information
  + The system shall provide information about each fuel type.
* Guest Access
  + Users may have the option to access basic information about fuel stations without the need for creating an account.
* User Support and Help Center
  + The system shall provide a user support section with FAQs, tutorials, and contact information for assistance.
* Accessibility Features:
  + 6The system shall include features to ensure accessibility for users with disabilities, such as screen reader compatibility and alternative text for images.
* Notifications and Alerts:
  + Users may receive notifications regarding their account activity, such as account creation, password changes, or critical account events.

# Non-functional:

* Performance
  + The system shall respond to user interactions within an acceptable time frame, ensuring a smooth and responsive user experience.
  + It shall support concurrent user sessions without significant performance degradation.
  + The time taken to retrieve and display nearby fuel stations and prices shall be reasonable and optimised.
* Scalability
  + The system architecture shall be scalable to accommodate a growing number of users and fuel stations.
  + Scalability shall include both vertical (adding more resources to a single server) and horizontal (adding more servers) scaling options.
* Reliability
  + The system shall be available and operational 24/7 with minimal downtime for maintenance.
  + It shall have backup and disaster recovery mechanisms to ensure data integrity and availability in case of system failures.
* Usability:
  + The user interface shall be intuitive and user-friendly, requiring minimal training for users to navigate and understand the system.
  + It shall support accessibility standards to ensure usability for individuals with disabilities.
* Security
  + User authentication and authorisation mechanisms shall be robust to prevent unauthorised access to sensitive data such as passwords.
  + Data transmission between the client and server shall be encrypted using secure protocols to protect user information.
* Privacy
  + User account information, including personal data, shall be stored and handled in compliance with relevant data privacy regulations (e.g. hashing for passwords).
  + Users shall have the ability to control and manage their data, including the option to delete their accounts and associated data, to comply with GPDR.
* Compliance
  + The system shall adhere to industry standards and best practices for software development.
  + It shall comply with applicable legal and regulatory requirements related to data protection.
* Maintainability
  + The system shall be designed with modular and maintainable code to facilitate future updates and enhancements.
* Logging and Monitoring
  + The system shall maintain detailed logs of errors, and system events for troubleshooting and auditing purposes.
* Interoperability
  + The system shall support integration with external services and APIs for obtaining fuel pricing data and other relevant information.