Functional Requirements:

User Registration: The application should allow users to register and create an account to access the features.

Code Editor: The application should provide a code editor for users to write and edit their code.

Language Selection: The application should provide a dropdown menu for users to select the programming language they want to use.

Code Execution: The application should execute the code entered by the user according to the selected programming language.

Standard Output: The application should display the standard output of the executed code to the user.

Execution Time: The application should display the execution time of the code to the user.

Memory Usage: The application should display the memory usage of the code to the user.

Non-Functional Requirements:

Performance: The application should be able to handle a large number of simultaneous user requests without slowing down.

Security: The application should use secure protocols to protect user data and prevent unauthorized access.

Reliability: The application should be reliable and available for use 24/7.

Scalability: The application should be scalable to accommodate a growing user base and increasing traffic.

Usability: The application should be user-friendly and intuitive to use for users of all skill levels.

Compatibility: The application should be compatible with different web browsers and devices.

Accessibility: The application should be accessible to users with disabilities, such as through keyboard navigation and screen readers.