25 April 2023

Project Report

Assumptions and Limitations of the Software Application:

While developing the models, I have taken into consideration various assumptions and limitations that may affect the accuracy and functionality of the system. Firstly, I have assumed that users will request only one number at a time and that the input will only contain digits. Additionally, I assumed that input validation will occur before the information reaches the system, making further checks unnecessary.

Another assumption made was that there is only one database available for the system to read from. Thus, it is not designed to read from multiple databases simultaneously. Additional development may be necessary to enable the system to handle such functionality.

To address the possibility of numbers having more than ten results, the system includes a display section where users can narrow down their findings.

Although the system is expandable by users, it currently has a small database, which limits its scope. However, this can be addressed in the future.

The system can only display a maximum of 30 results at a time (ten results for each word length) until the user has narrowed down their findings to 10 or fewer, which may pose a limitation if the query returns an excessive number of results.

Another limitation of the system is that once a user has entered a number and moved on to the next step, they cannot go back to a previous step and are forced to finish the process. This means that if the user makes a mistake or wants to change their input, they will need to start over from the beginning. This is something to keep in mind while using the system and may require additional development if it becomes a significant issue.

UML Diagram:

Diagram, schematic

Description automatically generated

Activity Diagram:

Diagram

Description automatically generated

Interaction Diagram:

Diagram

Description automatically generated

State Diagram:

Diagram

Description automatically generated

Use Case Diagram:

Diagram

Description automatically generated