**Task Description:**

The Spelling Bee game is built using grpc client server programming.

The main idea of this game is that the server will give client a set of characters to make a word from and for every successful word user make from the characters server will give some score as response.

**Instructions to run the project:**

To run the game efficiently, first run the server.py script by command

* python server.py

after server is running successfully you can start any number of clients in different terminals. To run a single client, use the following command.

* python client.py

Multiple clients can communicate with the server on an insecure port, the server is running at localhost:50051.

**Mechanism**

1. Server is started and it sends a response saying ‘Server Running’
2. The client script is run and it pings the server on localhost 50051
3. Once connection is established the server sends back a pangram
4. Using an infinite loop client script will ask user for an input of a word and send the entered word to server as a request.
5. Server check that the word sent by client is a valid word or not and send a response back.
6. Client will continue to perform this function until a Keyboard Interrupt.

**Patterns**

The client server schema is defined by the proto file, proto file contains two rpc methods both are singleton as there is single data to send as response from server and also a single request by the server.

There is no need for streaming and that’s why singleton pattern is preferred and used in the spelling bee game.

**Note\*** The program is not running perfectly. If you enter the same word numerous times it will score it and you can use the letters more than once. I need to work on this for assignment 2

**Sample Run**

