

User Guide

Group 1

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Word Guessing Game

Setup Instructions:

1. Install Ubuntu 18.04 Server Edition onto a server.
 - a. Follow the instructions here:
<https://help.ubuntu.com/18.04/serverguide/installation.html>
 - b. Once the server has been installed, an older version of python will be installed. Use the instructions below to update the python version of 3.7:
<https://phoenixnap.com/kb/how-to-install-python-3-ubuntu>
2. Use SSH to access the server's command line interface.
 - a. Follow the instructions here:
<https://phoenixnap.com/kb/ssh-to-connect-to-remote-server-linux-or-windows>
3. Install Flask
 - a. Using the server command line interface, do the command:
pip install flask

Brief explanation:

The Word Guessing Game is an online web-based word game, where the user has five guesses to guess the word of the day. The word of the day is randomly selected from a list that consists of random five letter words from the English language.

Each time the user makes a guess, the server will print a string of five characters (henceforth referred to as the feedback), where each character corresponds to a letter of the same position in the user's guess. For each character in the printed string, there are three cases:

- If the character is "X", the corresponding letter in the user's guess is not in the word of the day.
- If the character is "-", the corresponding letter in the user's guess is in the word of the day **but in the wrong position**.
- If the character is "+", the corresponding letter in the user's guess is in the word of the day **and in the correct position**.

User instructions:

Using a laptop with an HDMI, connect the device to the router. Once this is done, open the Putty application and enter the main IP address and connect. Then once this is done, a command prompt will open. Here you must enter a username and password. Once these are correctly entered in the interface, type "cd Group1", then "cd " and hit the tab button. After this, type "source .env/bin/activate" and enter, and then type "flask run -h 0.0.0.0 -p (and some port number)" and enter. Now the server should be running properly and ready to connect with the sim cards in the phone.

Next, the user must first open the phone and go to the ping application. Once here, the user enters the mobile IP address, which in the demo's case is 172.16.0.1, and then presses the "start" button. Once this is done, the user must open up a web browser within the phone and enter the mobile IP address followed by a colon and then the port. For example, "172.16.0.1:5000". After this, the game will run from the web browser for the user. The user will be prompted with an input box, where they can input guesses. For each guess, the server will give the user feedback, and the user may input their next guess. The user can make up to 5 guesses in total. However, the game can finish earlier if the user succeeds in guessing the word of the day before running out of guesses.