**Lab 2**

Pi IP: 192.168.1.87 (connect with remote desktop connection)

Enter “pi” as username and “admin” as password -> admin was changed to be password

**Task:** Create a Raspberry Pi-based system which is able to detect the keywords from a wav file. For example, the sentence which is in the wav file is “This food is so disgusting, I like to throw it away”. The system will detect word disgusting and display it on screen. If the sentence has a keyword repeated 4 times in the sentence. The system should report XYZ words has been used 4 times.

Bonus: Use live stream keywords detection rather than using wav file.

**Create the wave file:**

<https://www.text2speech.org/>

**Create the python code file:**

Type sudo bash before beginning:

Write script with: nano readwave.py

Run script with: python readwave.py

**Library for speech recognition:**

<https://pypi.org/project/SpeechRecognition/>

pip install SpeechRecognition

**Speech to text:**

<https://stackoverflow.com/questions/54916400/speech-to-text-in-python-with-a-wav-file>

**How to search a string in Python:**

<https://www.dummies.com/programming/python/how-to-search-within-a-string-in-python/>

**Python Input and Output**

<https://www.hackerearth.com/practice/python/getting-started/input-and-output/tutorial/>

**Reading and Writing Files in Python**

<https://www.pythonforbeginners.com/files/reading-and-writing-files-in-python>

**If statements**

<http://anh.cs.luc.edu/handsonPythonTutorial/ifstatements.html>

**While loops python:**

<https://www.w3schools.com/python/python_while_loops.asp>

**Remove duplicates:**

<https://www.w3schools.com/python/python_howto_remove_duplicates.asp>