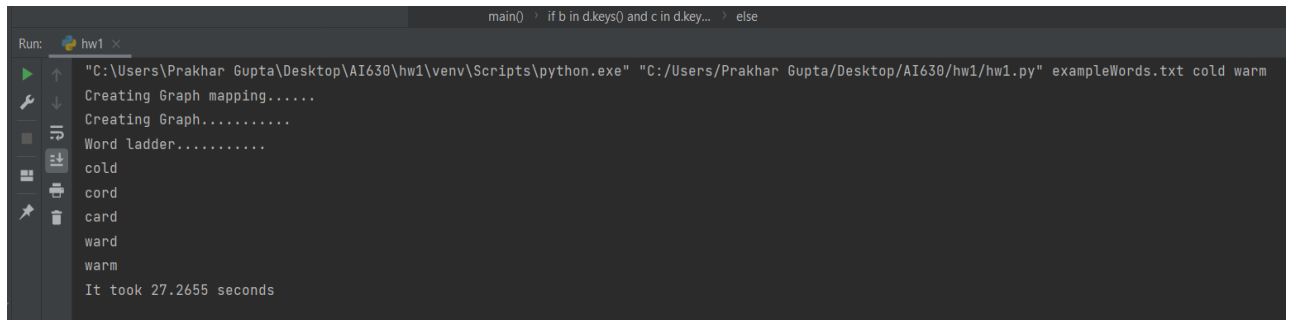


The code create a graph of words and then uses Breath First search to compute the word ladder.

For creating the graph a similarity score is computed for each word against every word in the dictionary and only word which have a similarity score of 1 are accepted as immediate neighbour vertex.

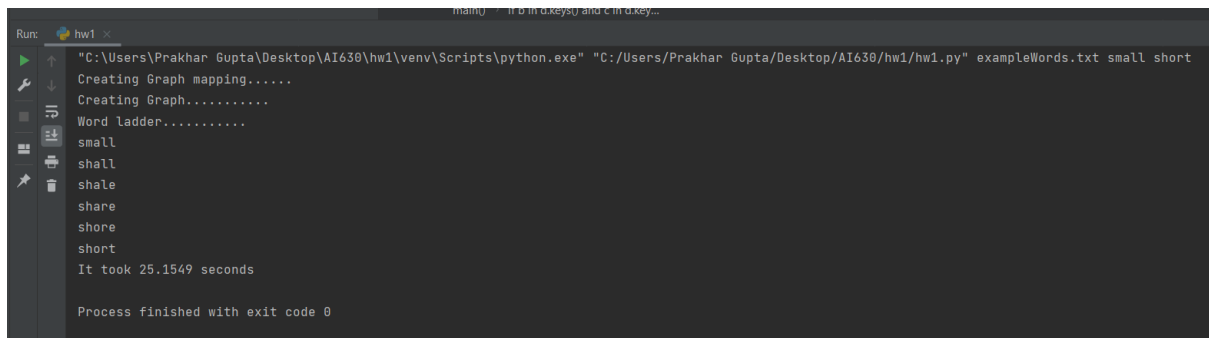
## Positive Cases-

Following is the output for cold to warm-



```
Run: hw1 x
"C:\Users\Prakhar Gupta\Desktop\AI630\hw1\venv\Scripts\python.exe" "C:/Users/Prakhar Gupta/Desktop/AI630/hw1/hw1.py" exampleWords.txt cold warm
Creating Graph mapping.....
Creating Graph.....
Word ladder.....
cold
cord
card
ward
warm
It took 27.2655 seconds
```

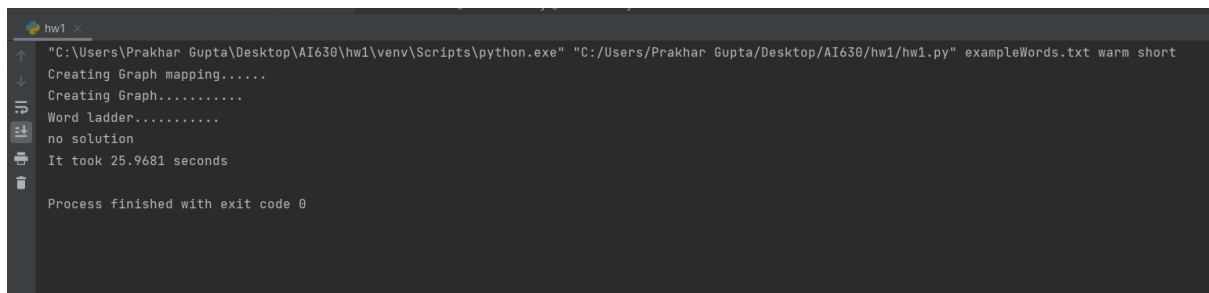
Following is the output for small to short-



```
Run: hw1 x
"C:\Users\Prakhar Gupta\Desktop\AI630\hw1\venv\Scripts\python.exe" "C:/Users/Prakhar Gupta/Desktop/AI630/hw1/hw1.py" exampleWords.txt small short
Creating Graph mapping.....
Creating Graph.....
Word ladder.....
small
shall
shale
share
shore
short
It took 25.1549 seconds
Process finished with exit code 0
```

## Negative Case-

Following is the output for warm to short-



```
Run: hw1 x
"C:\Users\Prakhar Gupta\Desktop\AI630\hw1\venv\Scripts\python.exe" "C:/Users/Prakhar Gupta/Desktop/AI630/hw1/hw1.py" exampleWords.txt warm short
Creating Graph mapping.....
Creating Graph.....
Word ladder.....
no solution
It took 25.9681 seconds
Process finished with exit code 0
```