CODE:

```python
import timeit
import matplotlib.pyplot as plt
import collections

#words.txt contains 100,000 words
f=open('words.txt','r')
totalWords=(f.readline())
splitWord = totalWords.split()
print("Length of words",len(splitWord))

timeList=[]

def wordsInStringToDictWordCount(s):
    dict = {}
    # Split the string in list
    splittedList = s.split()
    # for loop to iterate each element
    for i in splittedList:
        if (i not in dict):
            dict[i] = 1
        else:
            dict[i] = dict[i] + 1
    print (dict)

def wordsInStringToDictWordCount(splitWord):
    sum=0
    for i in range(splitWord):
        sum = sum + 1
    return sum
mynumber = 10
mytime = timeit.timeit('wordsInStringToDictWordCount(100000)',
'from __main__ import wordsInStringToDictWordCount', number=10)
computeTimewithoutCounter =(mytime / 10)
timeList.append(computeTimewithoutCounter)
print ("Compute Time without using
Counter:",computeTimewithoutCounter)

def wordsInStringToCounter(splitWord):
```

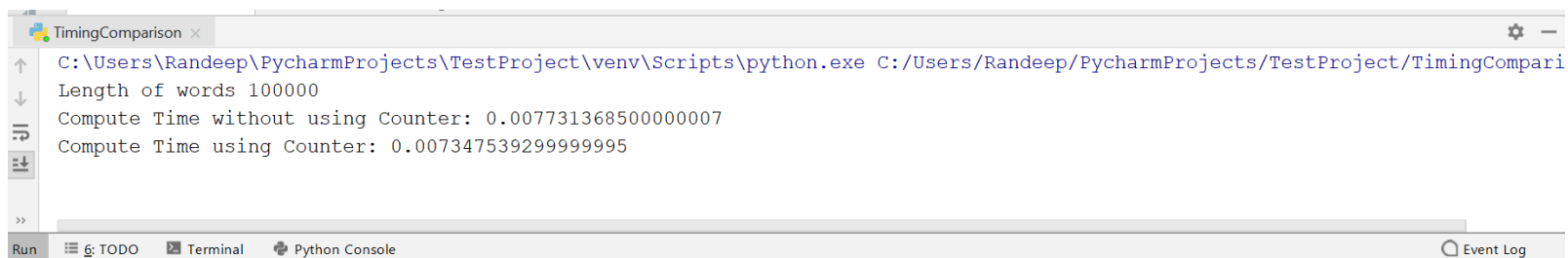```python
        counter = collections.Counter(splitWord)
        counterDict={}
        for word in counter:
            counterDict[word]=counter[word]
        print (counterDict)

    def wordsInStringToCounter(splitWord):
        sum=0
        for i in range(splitWord):
            sum = sum + 1
        return sum
    mynumber = 10
    mytime = timeit.timeit('wordsInStringToCounter(100000)', 'from
    __main__ import wordsInStringToCounter', number=10)
    computeTimeCounter=(mytime / 10)
    timeList.append(computeTimeCounter)
    print ("Compute Time using Counter:",computeTimeCounter)

    #Ready to plot
    plt.ylabel('Time')
    plt.xlabel('Function Name')
    plt.title('Comparison Graph\n')
    plt.bar(['wordsInStringToDictWordCount','wordsInStringToCounter'
    ],timeList,color="green")
    plt.show()
```

OUTPUT:



```
TimingComparison ×
C:\Users\Randeep\PycharmProjects\TestProject\venv\Scripts\python.exe C:/Users/Randeep/PycharmProjects/TestProject/TimingCompari
Length of words 100000
Compute Time without using Counter: 0.007731368500000007
Compute Time using Counter: 0.007347539299999995

Run    ≡ 6: TODO    ⊠ Terminal    🐡 Python Console                                                          ◯ Event Log
```

Figure 1   —   □   ✕

Comparison Graph