

1. First input was taken and then another list was taken counting the length of each element in the list.

Now zip operator was used to combine 2 lists and then they are sorted acc. To requirements

Input:

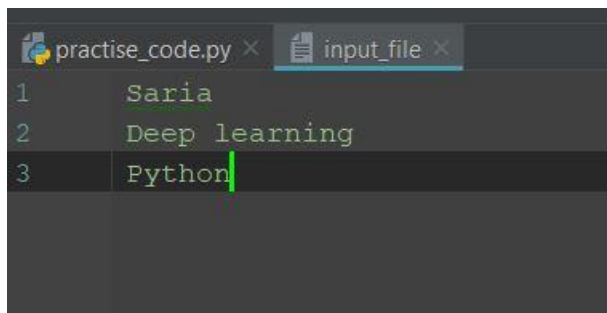
```
: def tuple_sort():
    inp1=["PHP","Exercises","Backend"]
    '''counting the length of each input'''
    len_inp1=[len(inp1[0]),len(inp1[1]),len(inp1[2])]
    '''converting into tuple'''
    new_inp1=list(zip(len_inp1,inp1))
    '''sorting using first key'''
    new_inp1.sort(key=lambda new_inp1:new_inp1[0])
    return new_inp1[2]
print(tuple_sort())
```

Output:

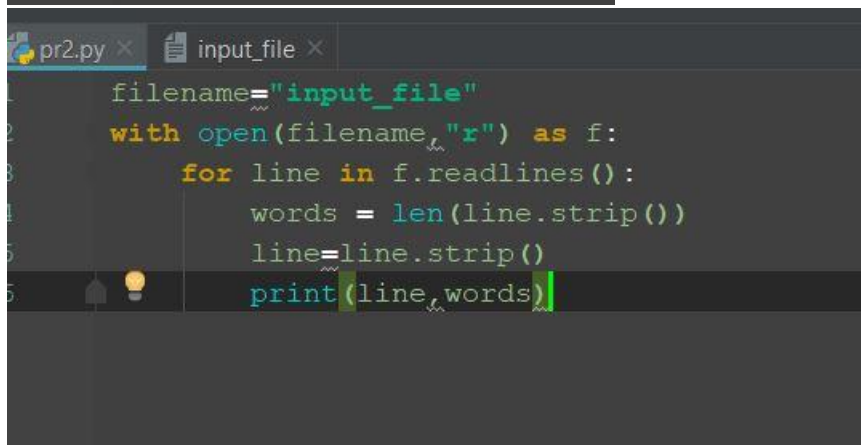
```
(9, 'Exercises')
```

2. First file was opened using python open function.  
Now readlines() was used to read and return a list containing the lines  
So we separated the list using strip() and found the length of each one

Input:

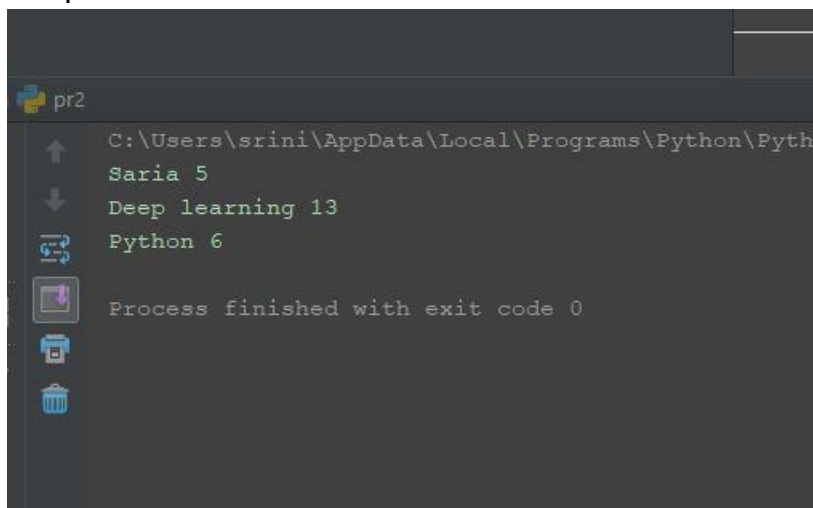


```
practise_code.py × input_file ×  
1 Saria  
2 Deep learning  
3 Python
```



```
pr2.py × input_file ×  
1 filename="input_file"  
2 with open(filename,"r") as f:  
3     for line in f.readlines():  
4         words = len(line.strip())  
5         line=line.strip()  
6         print(line,words)
```

Output:



```
pr2  
C:\Users\srini\AppData\Local\Programs\Python\Pyth  
Saria 5  
Deep learning 13  
Python 6  
Process finished with exit code 0
```

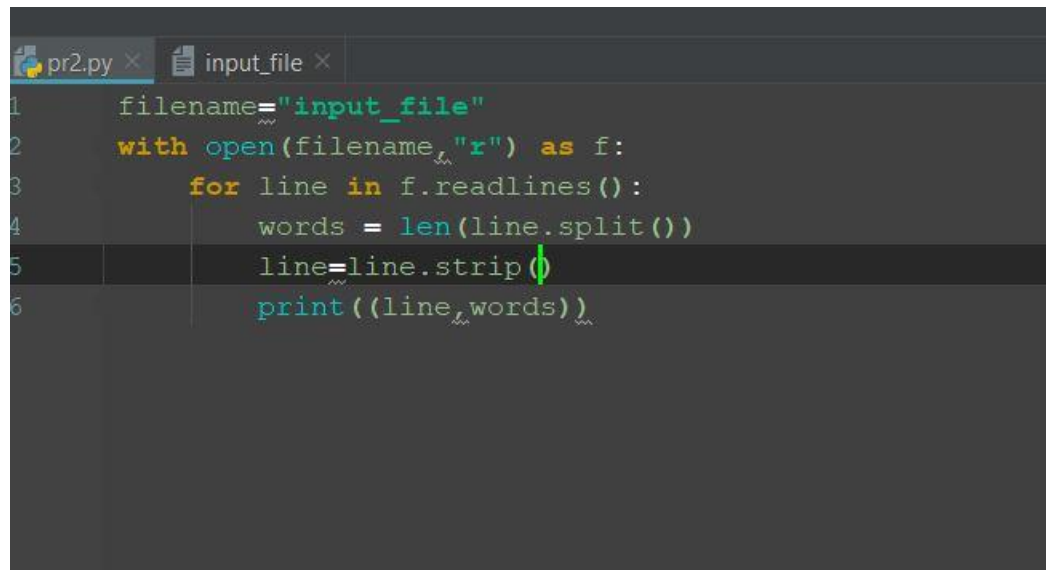
3. Everything is same as the previous one except we use `split()` instead of `strip()`

First file was opened using python open function.

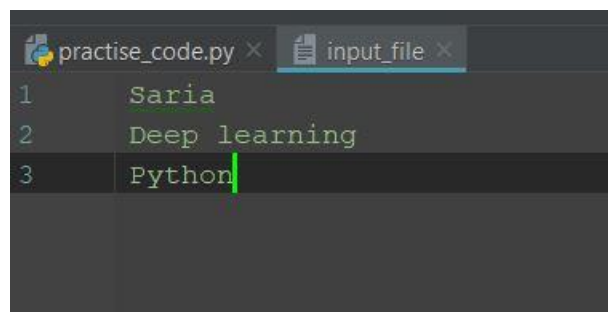
Now `readlines()` was used to read and return a list containing the lines

So we separated the list using `split()` and found the length of each one

Input:

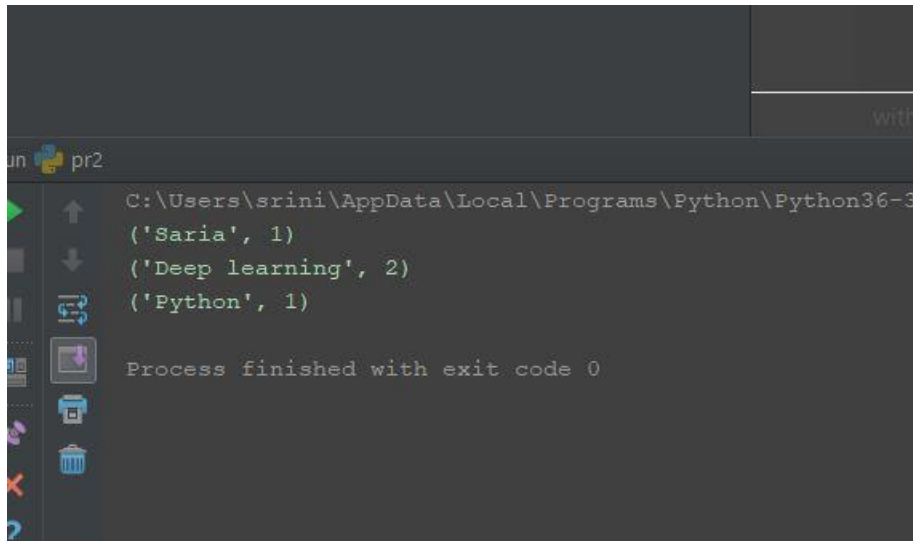


```
pr2.py x input_file x
1 filename="input_file"
2 with open(filename,"r") as f:
3     for line in f.readlines():
4         words = len(line.split())
5         line=line.strip()
6         print((line,words))
```



```
practise_code.py x input_file x
1 Saria
2 Deep learning
3 Python
```

Output:



```
pr2
C:\Users\srini\AppData\Local\Programs\Python\Python36-3
('Saria', 1)
('Deep learning', 2)
('Python', 1)
Process finished with exit code 0
```

#### 4. First

Input:

The output here is displayed according to the user input.

Print statement was used here.

Also here the user input should be separated by '\*' Like 2\*4

```
: def get_dimensions():
    request = input("Please choose the dimensions of the game board. ")
    while True:
        try:
            request = request.strip().split("*")
            if len(request) != 2:
                int("error")
            dimensions = (int(request[0]), int(request[1]))
            if dimensions[0] >= 0 and dimensions[1] >= 0:
                return dimensions
            else:
                int("error")
        except:
            request = input("Please choose two natural numbers seperated by an '*'. For example '3*3'. ")

def draw (rows, columns):
    top = columns * " ----"
    strich = columns * " |   " + "|"
    for i in range(0, rows):
        print(top)
        print(strich)
    print(top)

dim = get_dimensions()
x = dim[0]
y = dim[1]
draw(x, y)
```

Output:

Please choose the dimensions of the game board. 2\*2