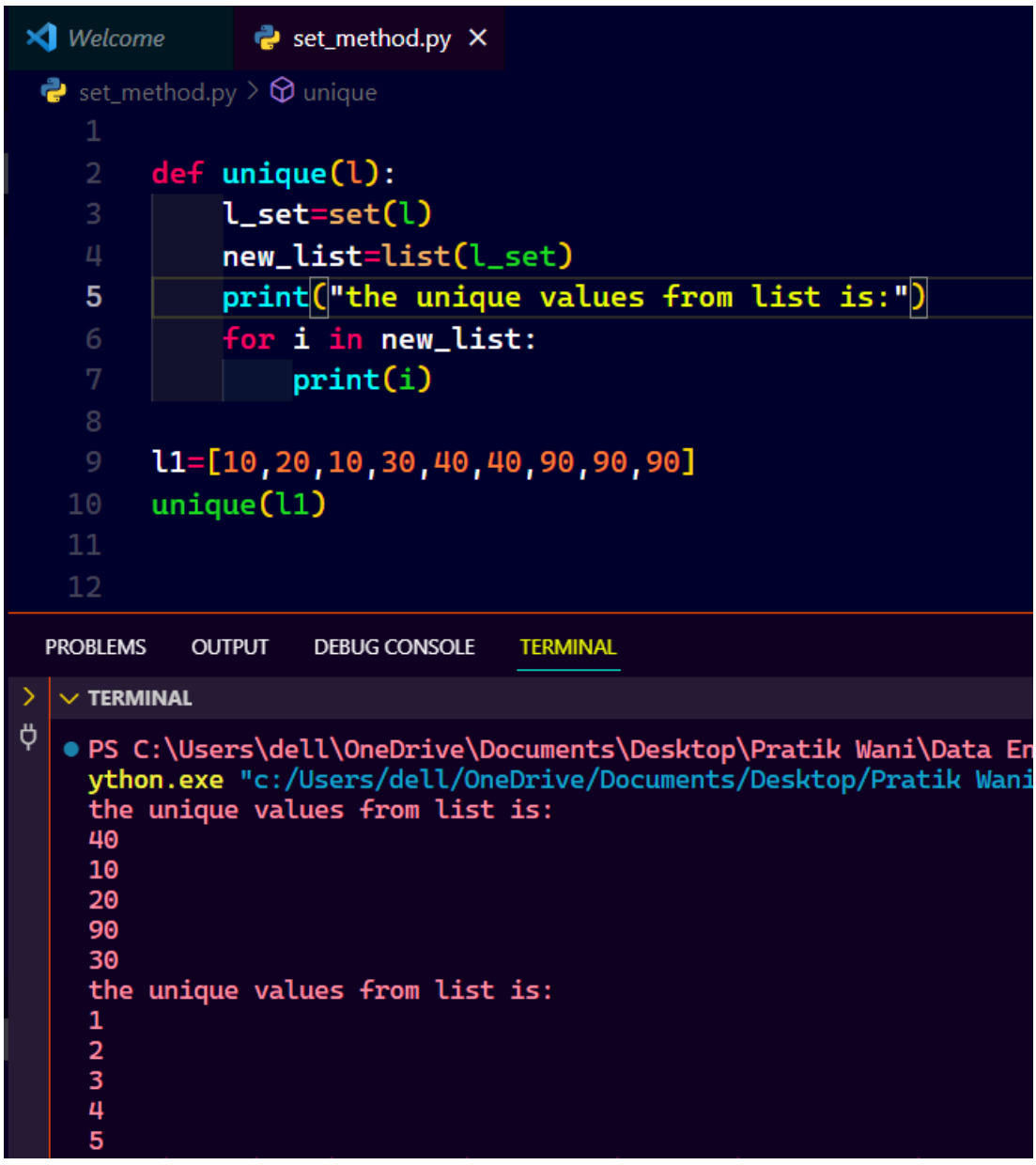
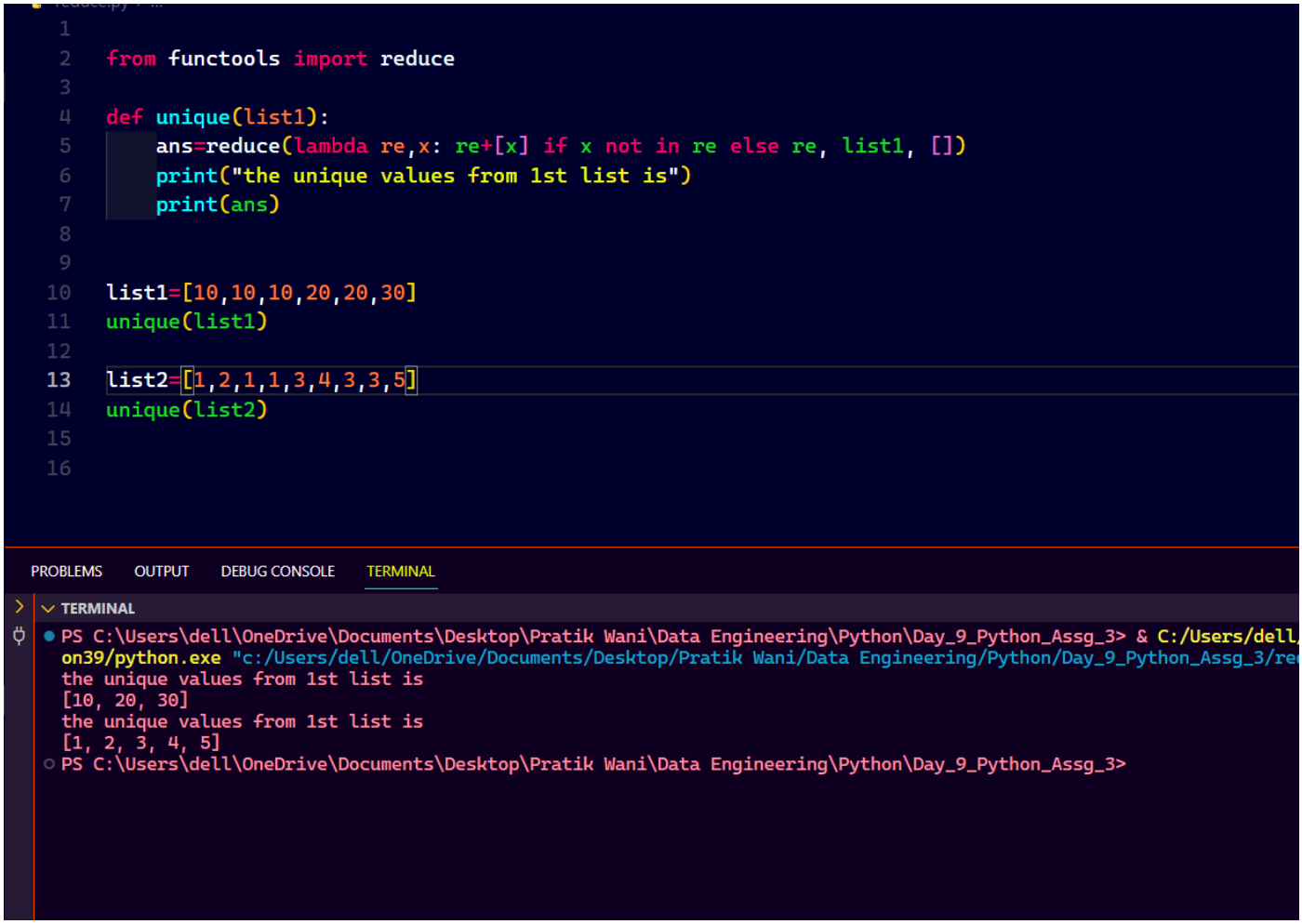
Day 9 Python Assignment no 3

Pratik Wani

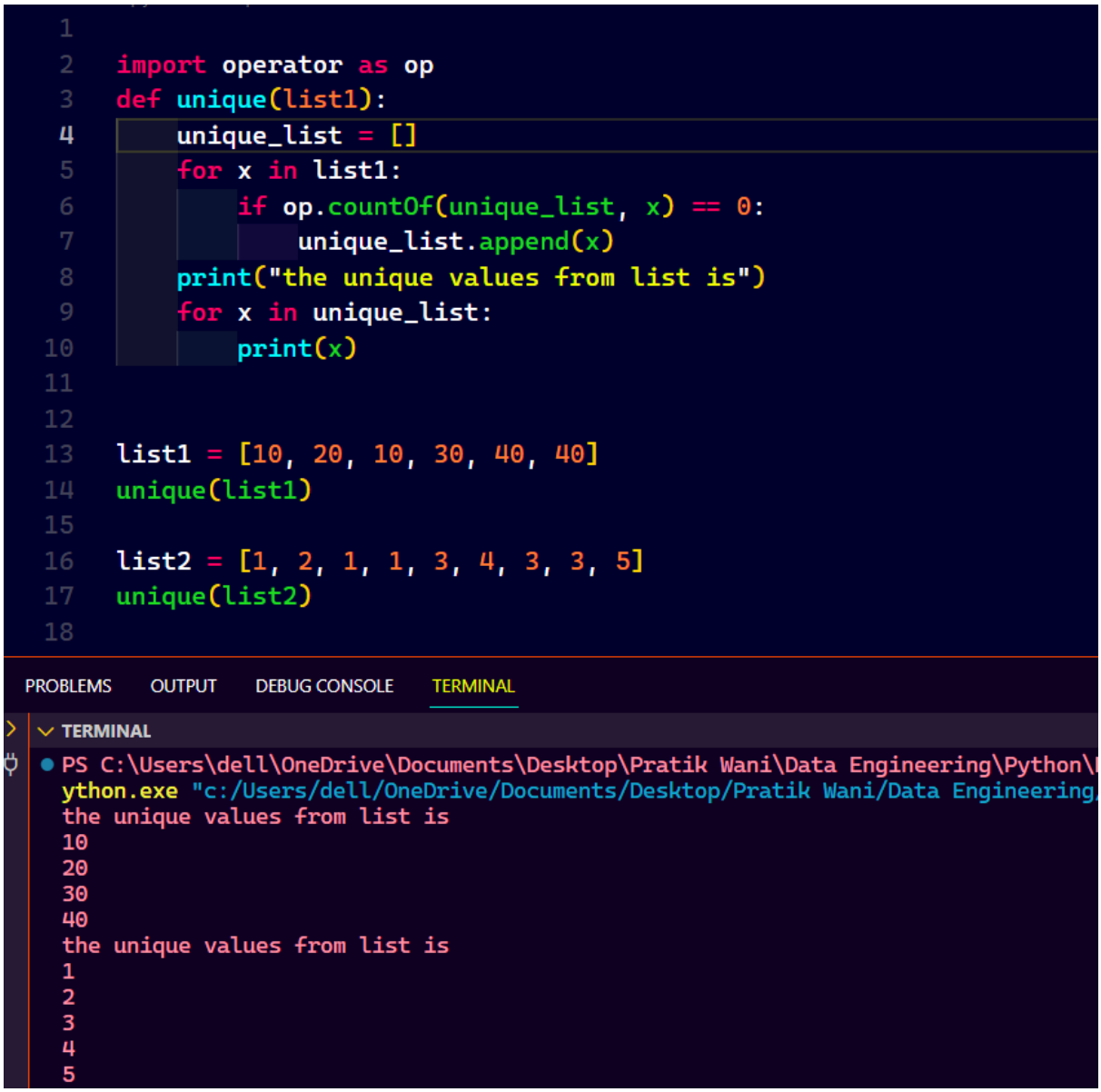
- Get Unique Values from a List Using Set Method:
    - Insert the values of the list in a set.
    - Set only stores a value once even if it is inserted more than once.
    - At end, convert the set into list.



- Get unique values from a list using reduce function:
    - Iterate over all element and checks if the element is a duplicate or unique value.



- Get unique values from list using countOf method:
    - For each element in list, it employs op.countOf() to check if x is present in empty list.
    - If not found x is appended to empty list.

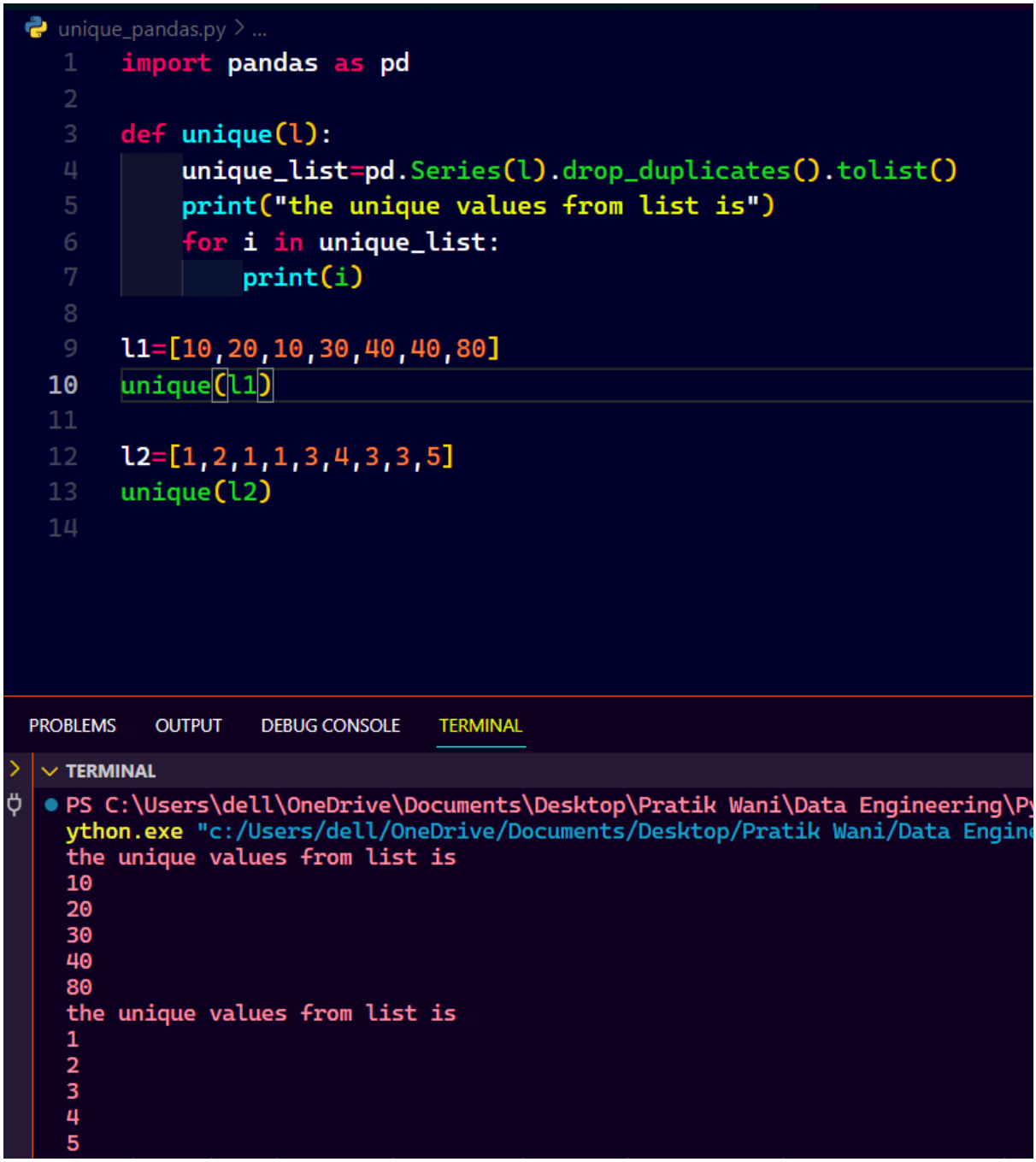


```
1
2   import operator as op
3   def unique(list1):
4       unique_list = []
5       for x in list1:
6           if op.countOf(unique_list, x) == 0:
7               unique_list.append(x)
8       print("the unique values from list is")
9       for x in unique_list:
10          print(x)
11
12
13  list1 = [10, 20, 10, 30, 40, 40]
14  unique(list1)
15
16  list2 = [1, 2, 1, 1, 3, 4, 3, 3, 5]
17  unique(list2)
18
```

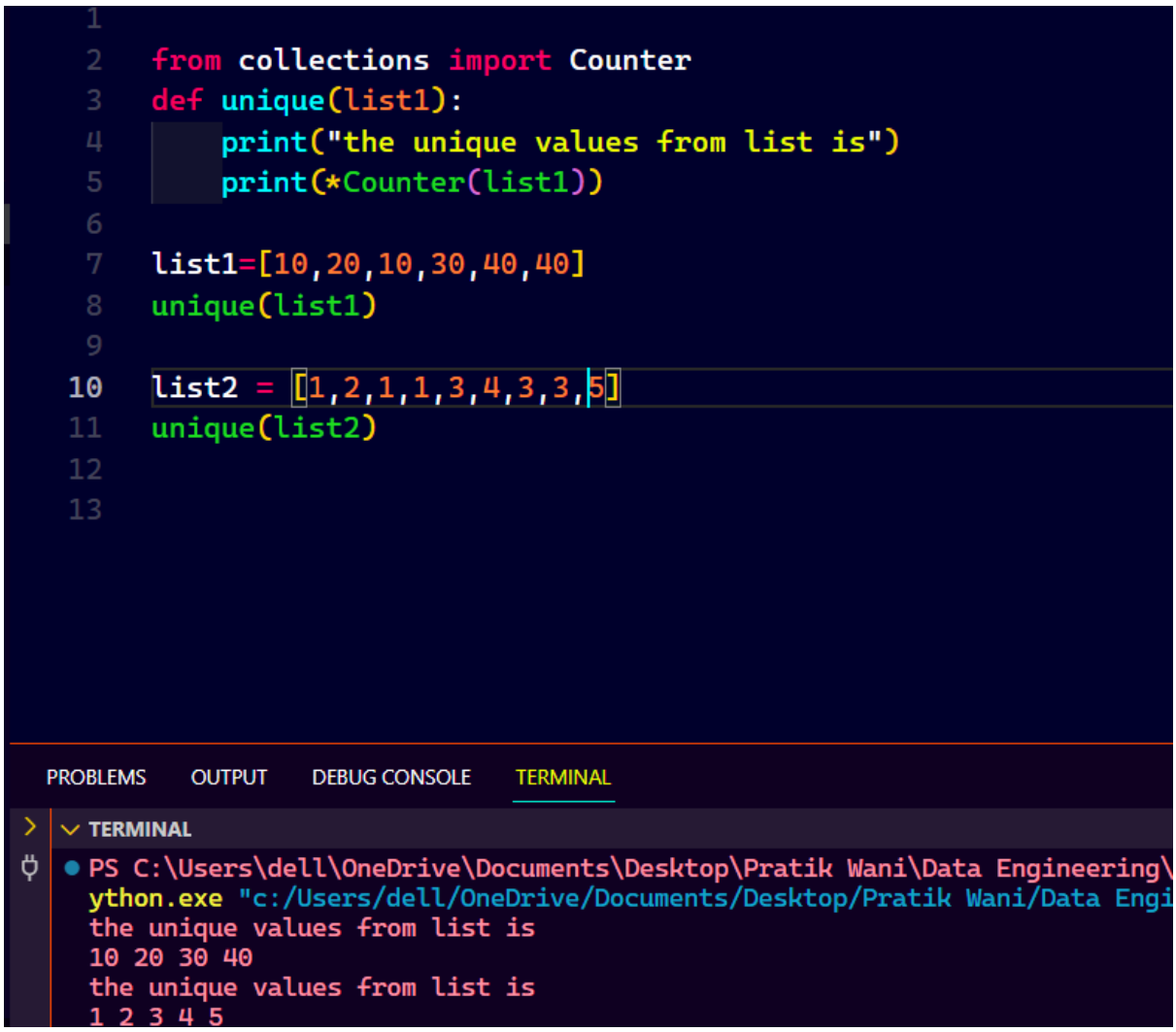
```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

TERMINAL
PS C:\Users\dell\OneDrive\Documents\Desktop\Pratik Wani\Data Engineering\Python\
ython.exe "c:/Users/dell/OneDrive/Documents/Desktop/Pratik Wani/Data Engineering/
the unique values from list is
10
20
30
40
the unique values from list is
1
2
3
4
5
```

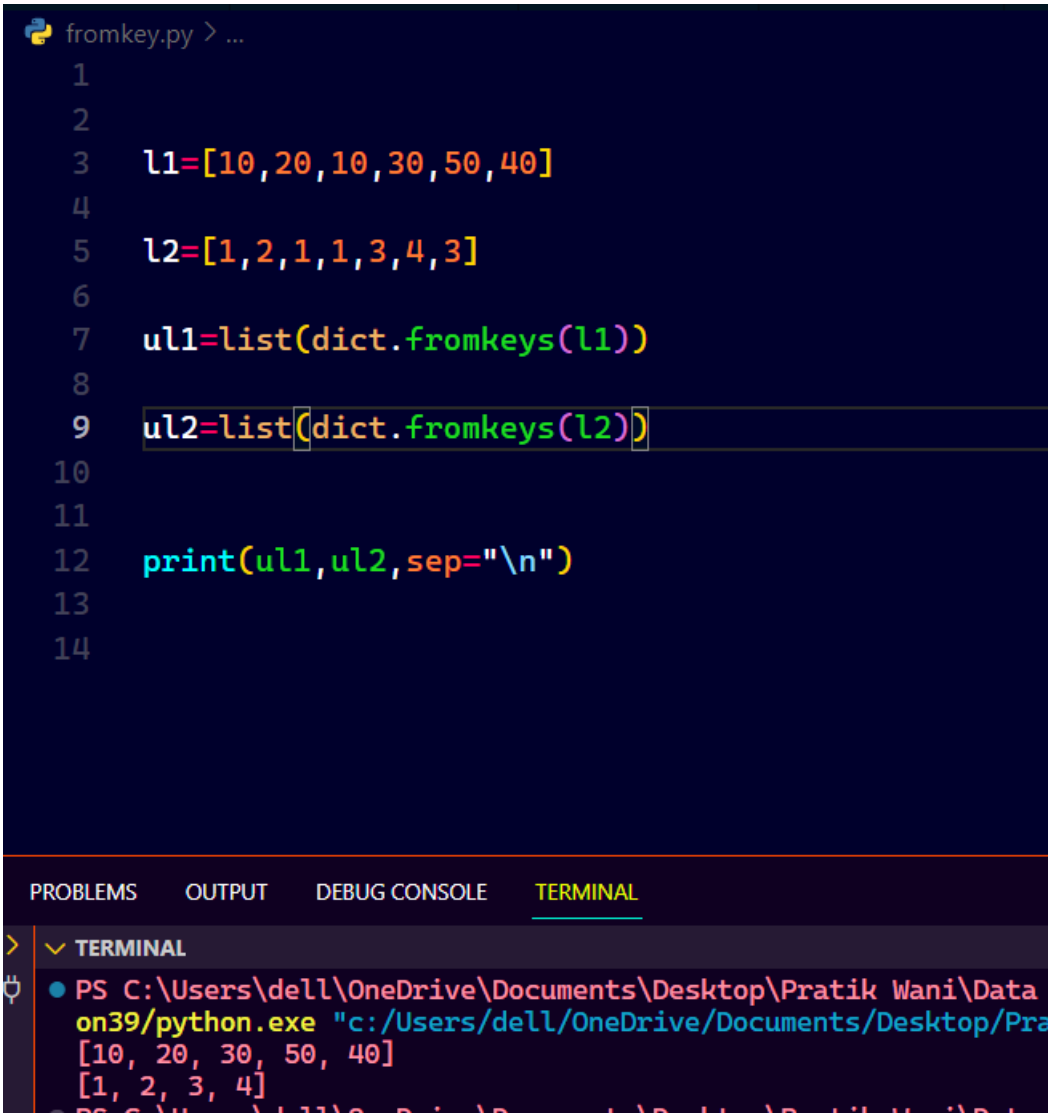
- Get unique values from a list using pandas module:
    - Here we use drop_duplicates to eliminate duplicates and obtain a list of unique values



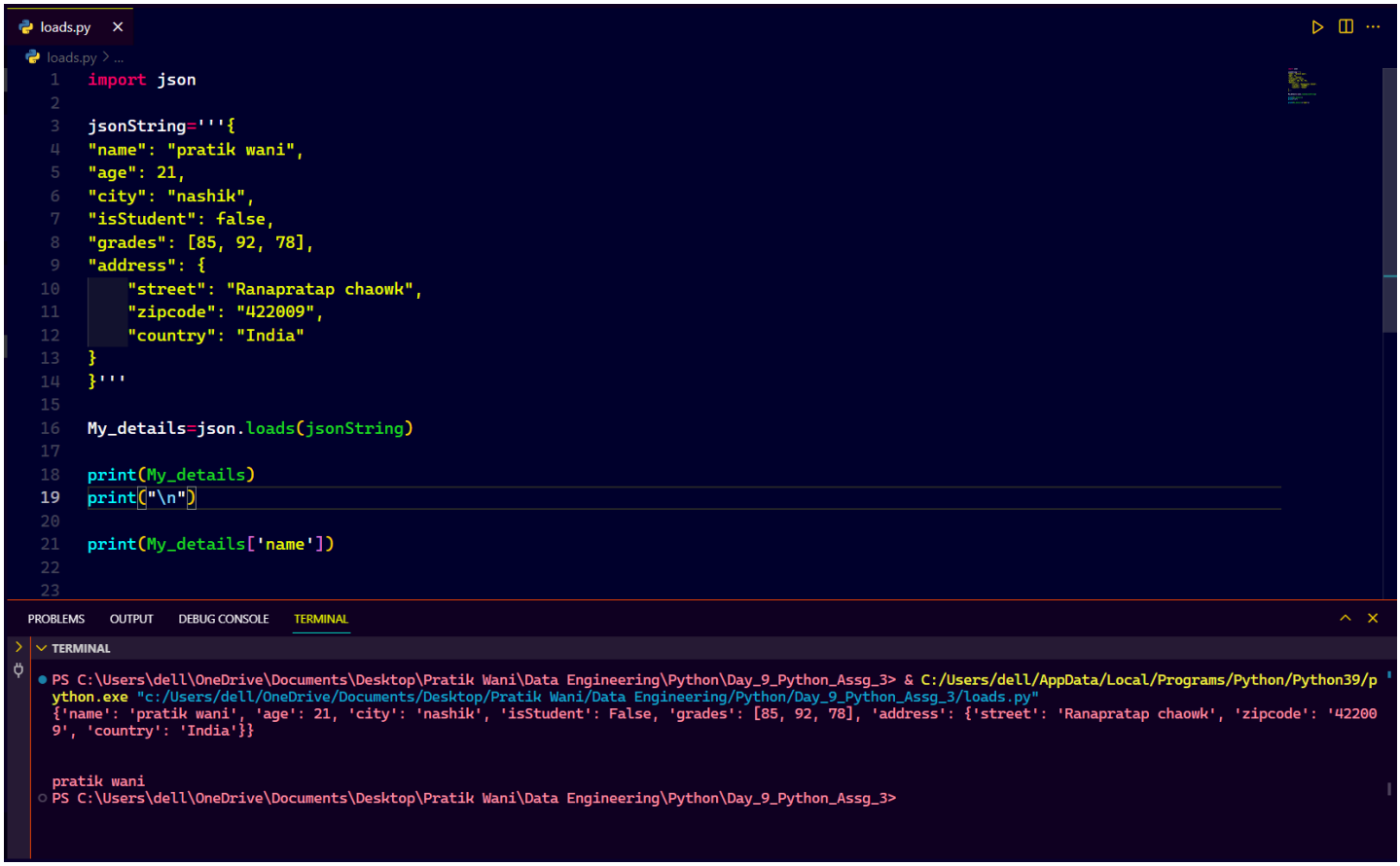
- Get unique values from a list using collections.Counter:
    - We will get list of all the unique elements In the list by using * symbol.



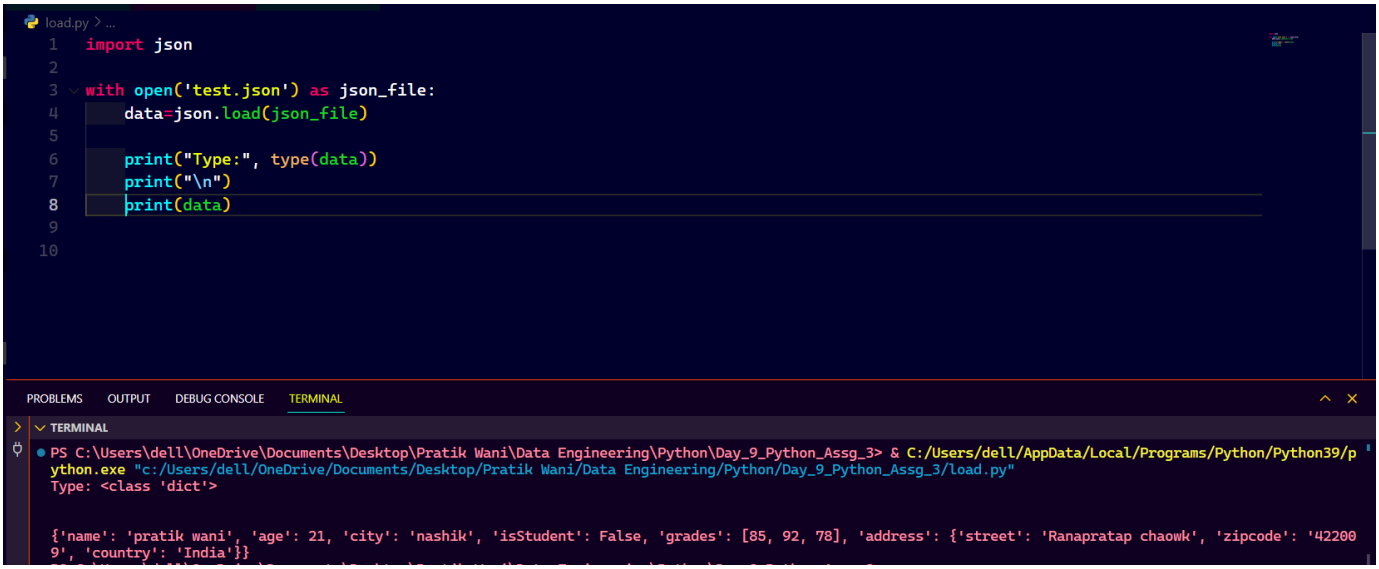
- Get Unique Values From a List Using dict.fromkeys:
    - We need to use a variable in which we will store the result after using the fromkeys method
    - We need to convert that result into a list
    - Because it will return a dictionary having all unique keys and no values



- Convert JSON String to Dictionary Python:
    - We need to import the json module.
    - Here I used loads function to convert json string into python dictionary.



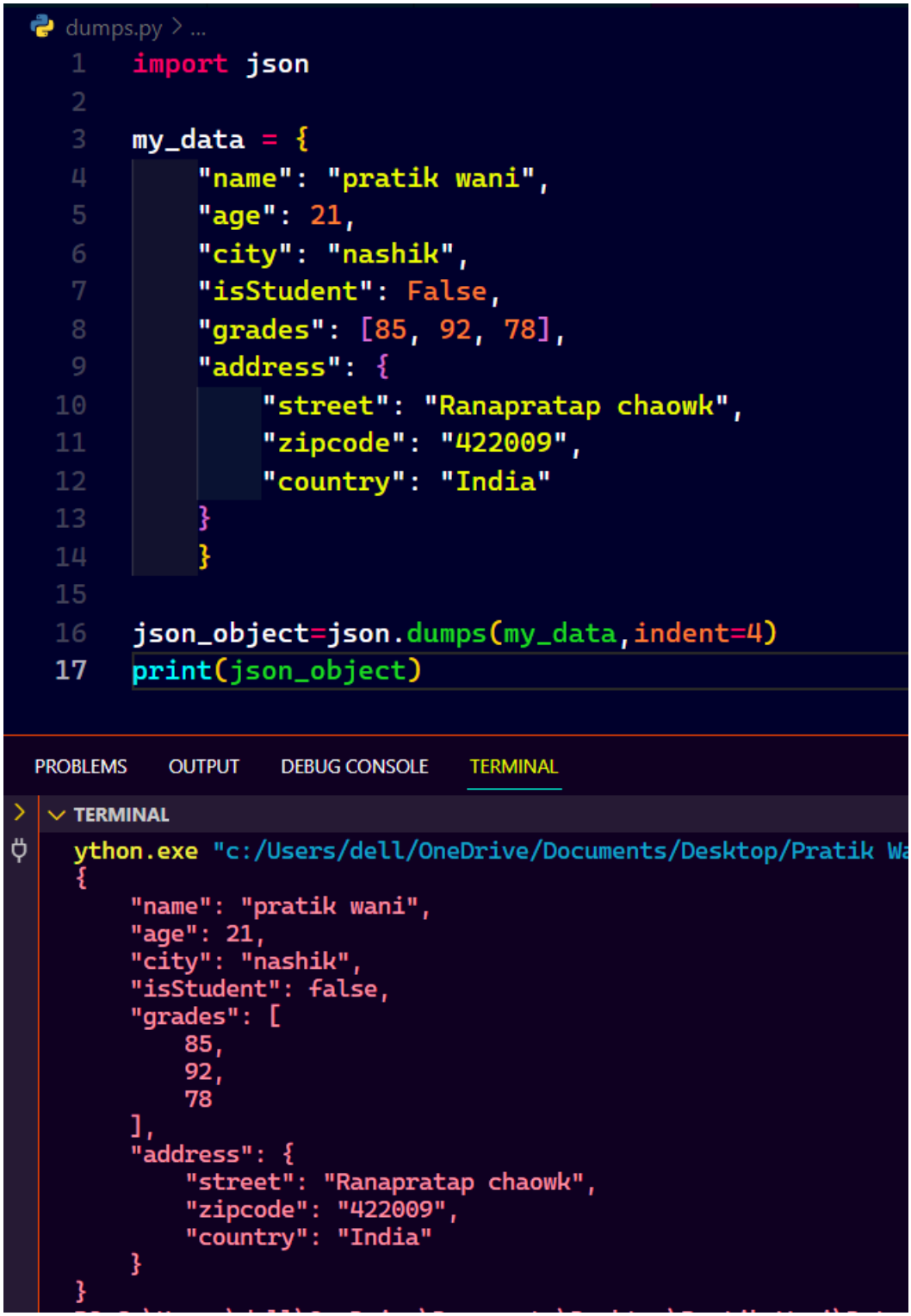
- Convert JSON File to Python Object:
    - We can convert JSON file to Python dictionary using json.load() mehtod.
    - firstly we open the json file using file handling in Python
    - Then convert the file to Python object using the json.load() method



- Read, Write and Parse JSON using Python:
    - Python read JSON file:
        - we have used the open() function to read the JSON file.
        - Then, the file is parsed using json.load() method which gives us a python dictionary.

○ Convert Python Dictionary to JSON:

- For converting a Python dictionary to a JSON object we uses json.dumps() method of JSON module in Python
- We passed python dictionary to json.dumps() method with ‘indent=4’ to convert this Python dictionary into a JSON object.



- Writing JSON to a file in Python:
  - We can create and write into JSON file using json.dump() function of JSON module and file handling in Python
  - we have opened a file named flag.json in writing mode using 'w'.
  - The file will be created if it does not exist. Json.dump() will transform the Python dictionary to a JSON string and it will be saved in the file flag.json


flag.json
flag.json > ...
{"name": "pratik wani",
"age": 21,
"city": "nashik",
"isStudent": false,
"grades": [85, 92, 78],
"address":
{"street": "Ranapratap chaowk",
"zipcode": "422009",
"country": "India"}
}

- Python Pretty Print JSON:
    - When we convert a string to JSON and to make it more readable additional arguments in json.dumps function such as indent and sort_keys

preety.py > ...

```
import json

employee = '{"id":"01", "name": "Pratik", "department":"IT","age":21}'
employee_dict=json.loads(employee)

print(json.dumps(employee_dict,indent=4,sort_keys=True))

```

```
PS C:\Users\dell\OneDrive\Documents\D
ython.exe "c:/Users/dell/OneDrive/Doc
{
    "age": 21,
    "department": "Finance",
    "id": "09",
    "name": "Nitin"
}
PS C:\Users\dell\OneDrive\Documents\D
```