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Sem -7th

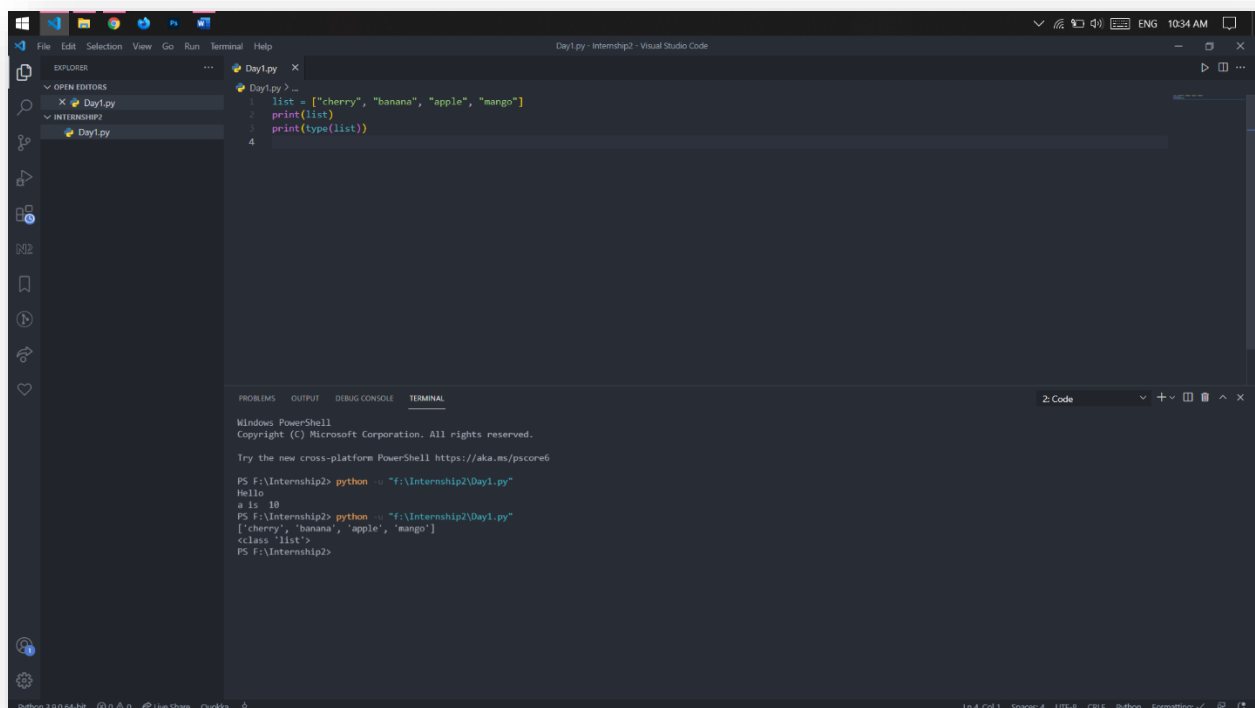
Task

Data Structure of Python with Methods –

1. List -

```
list = ["cherry", "banana", "apple", "mango"]  
print(list)  
print(type(list))
```

Output –



The screenshot shows the Visual Studio Code interface. The Explorer pane on the left shows a file named 'Day1.py'. The main editor area displays the following Python code:

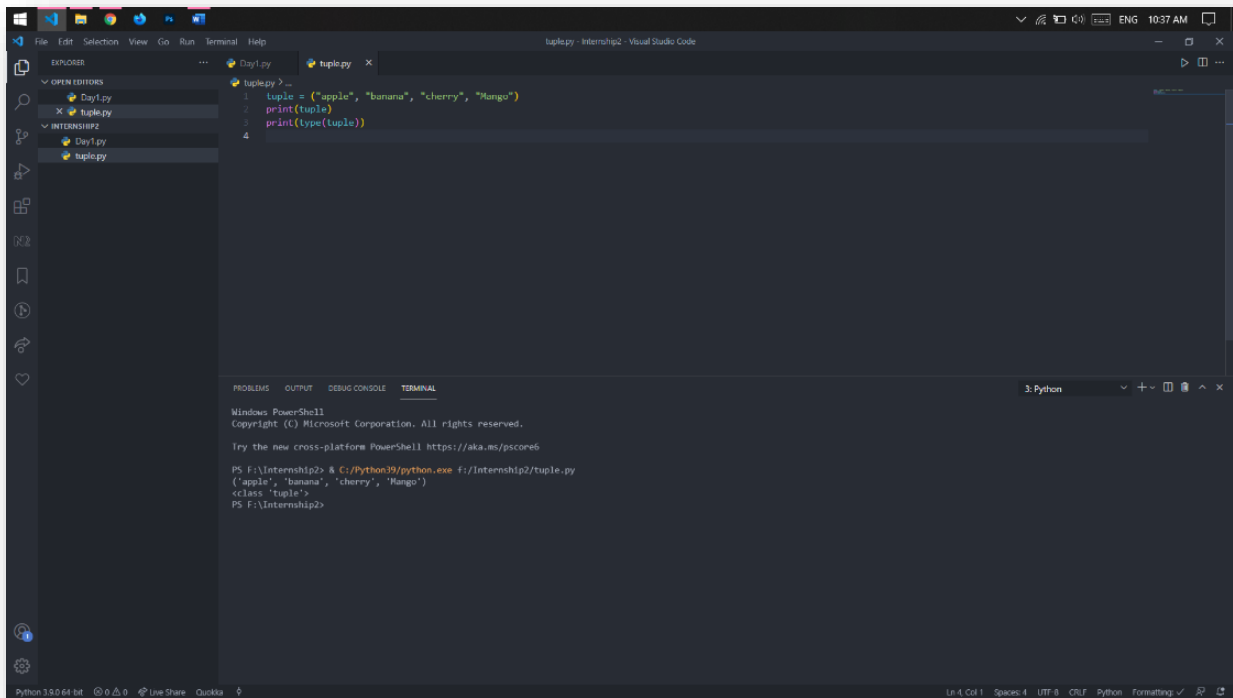
```
list = ["cherry", "banana", "apple", "mango"]  
print(list)  
print(type(list))
```

The bottom panel shows the TERMINAL output:

```
Microsoft PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS F:\Internship2> python -i "f:\Internship2\Day1.py"  
Hello  
a is 10  
PS F:\Internship2> python -i "f:\Internship2\Day1.py"  
['cherry', 'banana', 'apple', 'mango']  
<class 'list'>  
PS F:\Internship2>
```

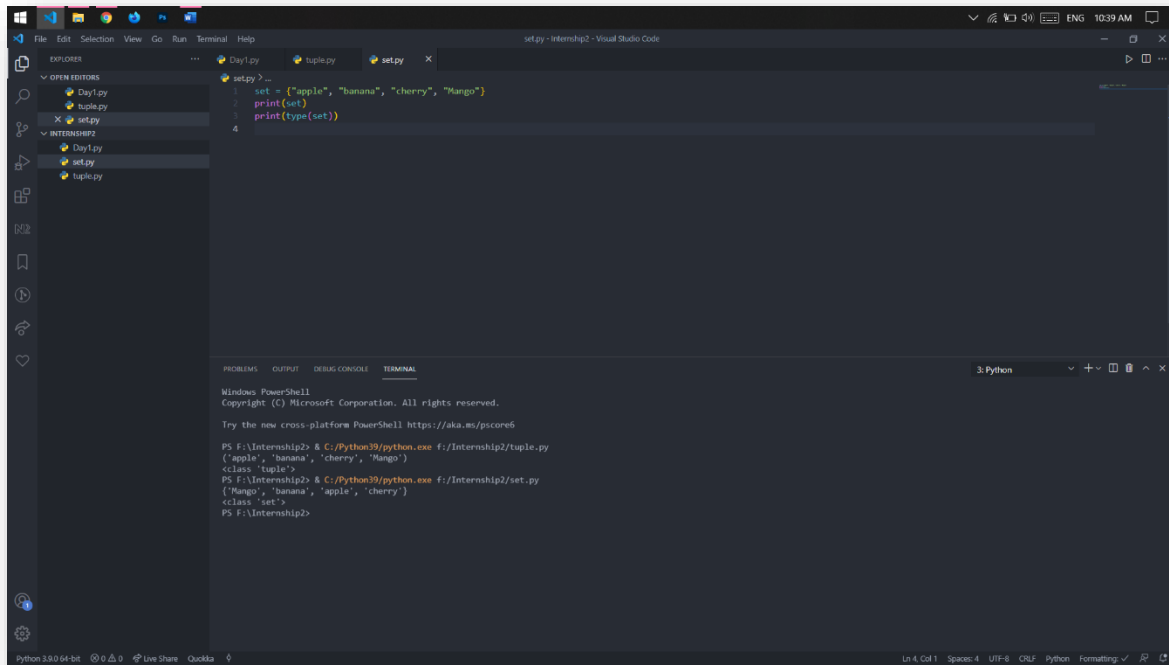
2. Tuple –

```
_tuple = ("apple", "banana", "cherry", "Mango")  
print(tuple)  
print(type(tuple))
```



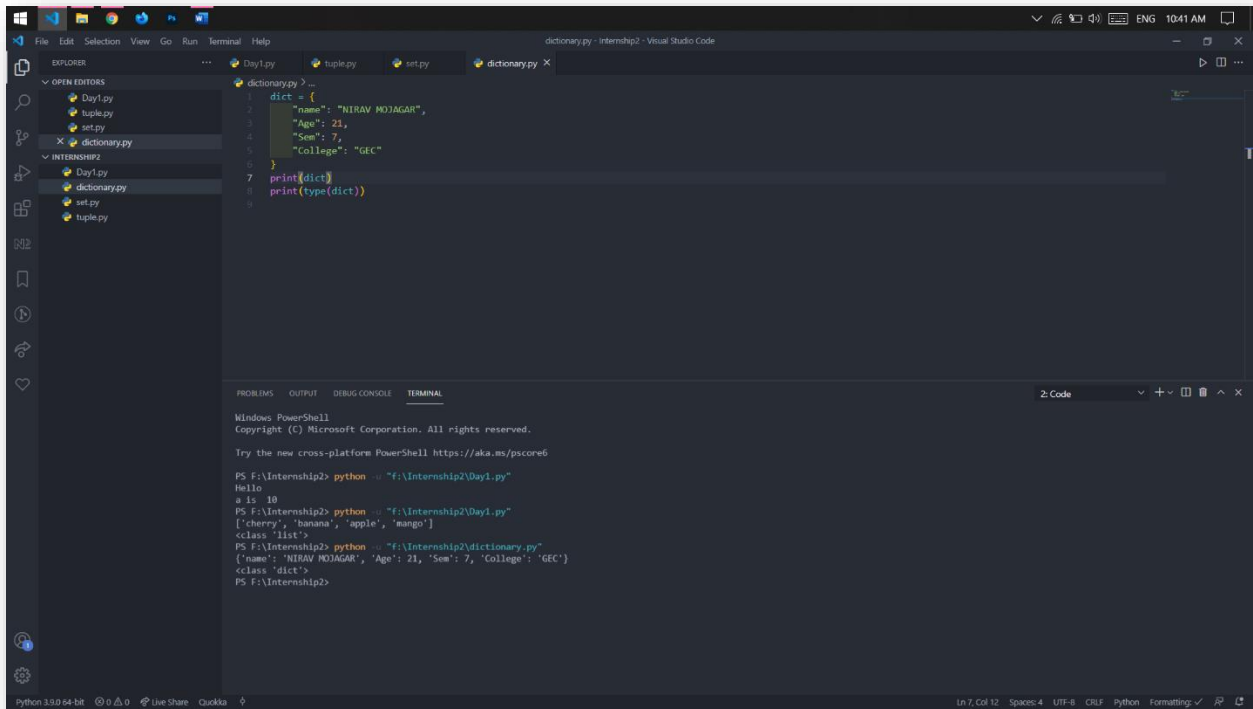
3. Set –

```
set = {"apple", "banana", "cherry", "Mango"}  
print(set)  
print(type(set))
```



4. Dictionary –

```
dict = {  
    "name": "NIRAV MOJAGAR",  
    "Age": 21,  
    "Sem": 7,  
    "College": "GEC"  
}  
print(dict)  
print(type(dict))
```

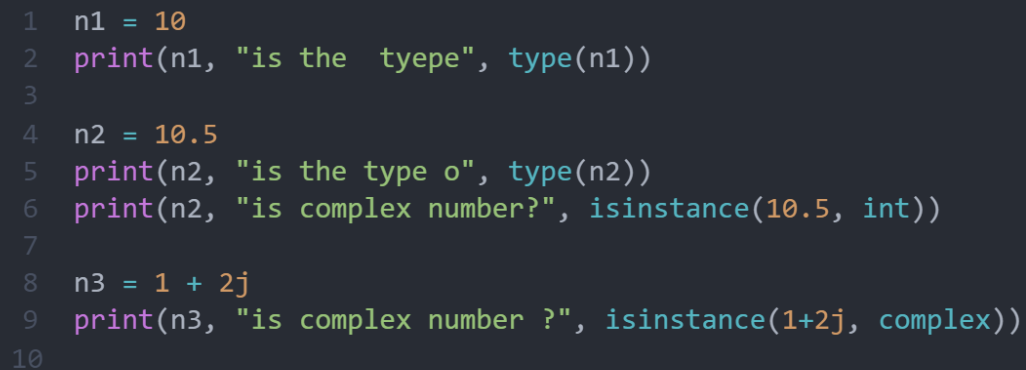


The screenshot shows the Visual Studio Code interface. The Explorer pane on the left shows a project structure with files like Day1.py, tuple.py, set.py, and dictionary.py. The main editor displays the content of dictionary.py, which defines a dictionary and prints its details. The terminal at the bottom shows the execution of the script, displaying the dictionary's string representation and its type.

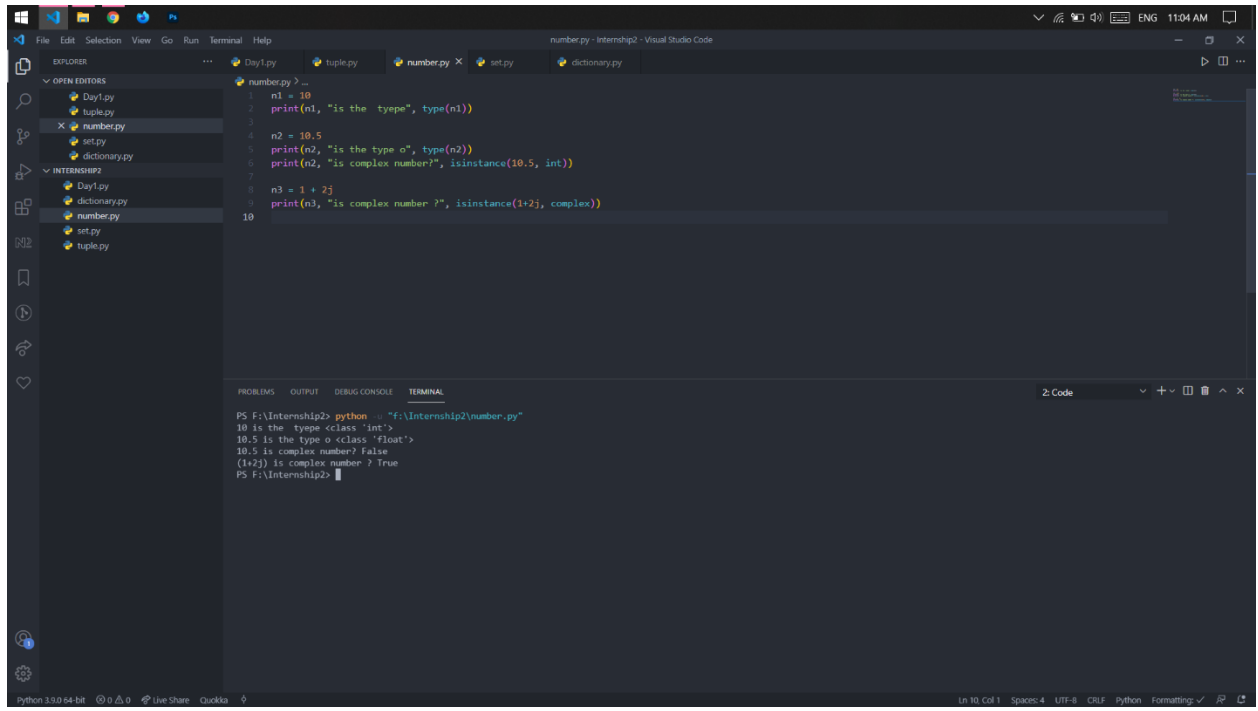
```
dict = {  
    "name": "NIRAV MOJAGAR",  
    "Age": 21,  
    "Sem": 7,  
    "College": "GEC"  
}  
print(dict)  
print(type(dict))
```

```
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell https://aka.ms/powershell  
  
PS F:\Internship2> python -i "F:\Internship2\Day1.py"  
Hello  
a is 10  
PS F:\Internship2> python -i "F:\Internship2\Day1.py"  
['cherry', 'banana', 'apple', 'mango']  
<class 'list'>  
PS F:\Internship2> python -i "F:\Internship2\dictionary.py"  
{'name': 'NIRAV MOJAGAR', 'Age': 21, 'Sem': 7, 'College': 'GEC'}  
<class 'dict'>  
PS F:\Internship2>
```

5. Number



```
1 n1 = 10  
2 print(n1, "is the tyepe", type(n1))  
3  
4 n2 = 10.5  
5 print(n2, "is the type o", type(n2))  
6 print(n2, "is complex number?", isinstance(10.5, int))  
7  
8 n3 = 1 + 2j  
9 print(n3, "is complex number ?", isinstance(1+2j, complex))  
10
```



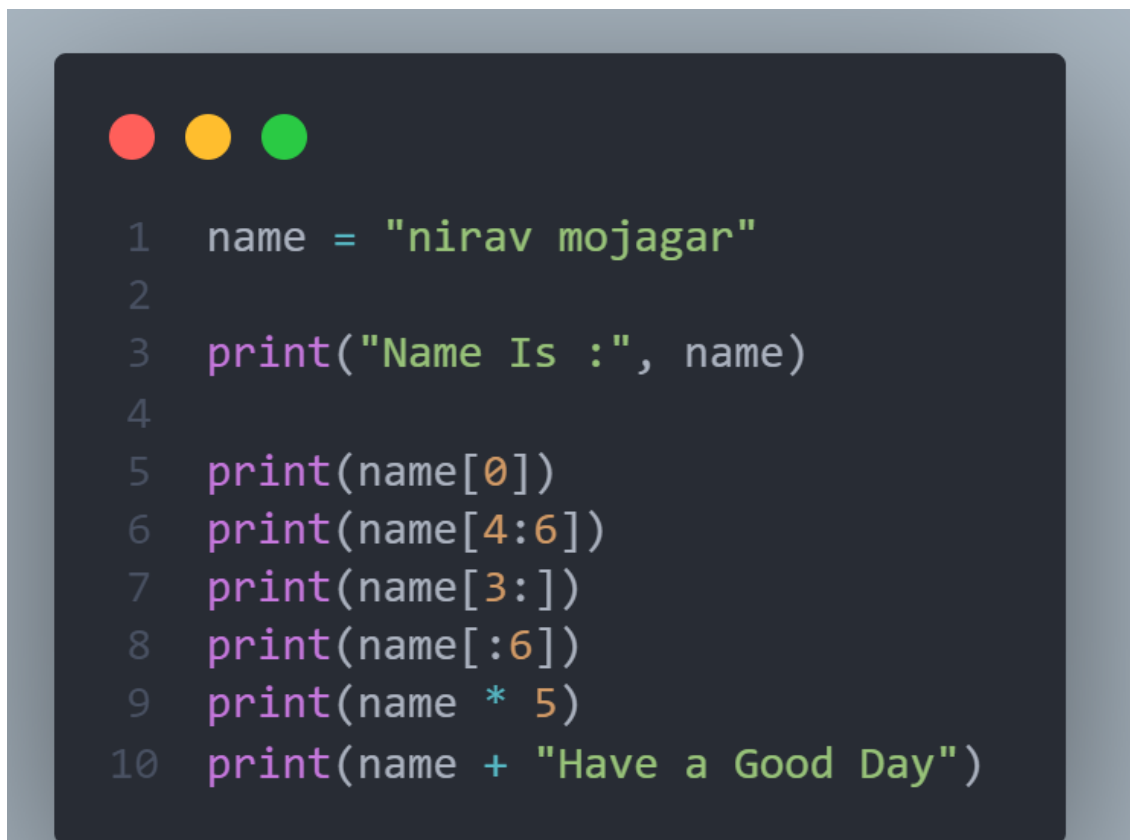
The screenshot shows a Visual Studio Code editor with a Python file named 'number.py' open. The code in the file is as follows:

```
1 n1 = 10
2 print(n1, "is the type", type(n1))
3
4 n2 = 10.5
5 print(n2, "is the type o", type(n2))
6 print(n2, "is complex number?", isinstance(10.5, int))
7
8 n3 = 1 + 2j
9 print(n3, "is complex number ?", isinstance(1+2j, complex))
10
```

The terminal at the bottom shows the output of running the script:

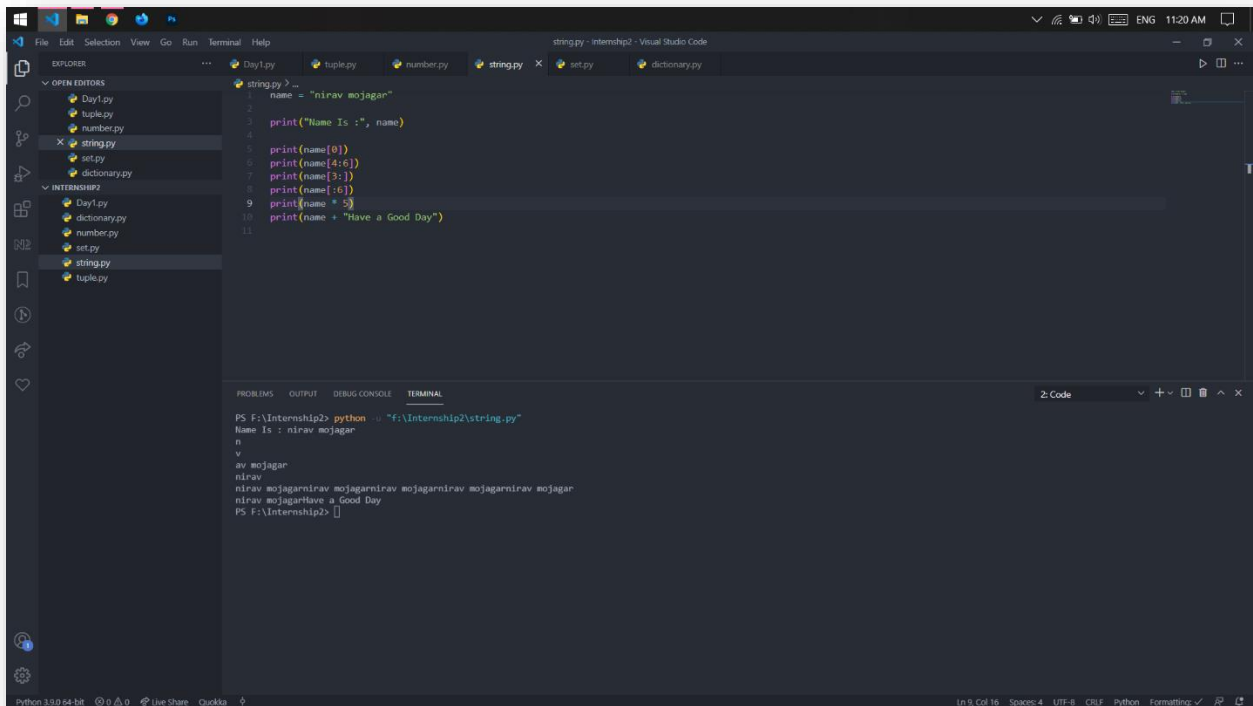
```
PS F:\Internship2> python -i "f:\Internship2\number.py"
10 is the type <class 'int'>
10.5 is the type o <class 'float'>
10.5 is complex number? False
(1+2j) is complex number ? True
PS F:\Internship2>
```

6. String



The screenshot shows a code editor with a Python script for string manipulation. The code is as follows:

```
1 name = "nirav mojar"
2
3 print("Name Is :", name)
4
5 print(name[0])
6 print(name[4:6])
7 print(name[3:])
8 print(name[:6])
9 print(name * 5)
10 print(name + "Have a Good Day")
```



The screenshot shows the Visual Studio Code interface with a Python file named `string.py` open. The file contains the following code:

```
1 name = "nirav mojjagar"  
2  
3 print("Name Is :", name)  
4  
5 print(name[0])  
6 print(name[4:6])  
7 print(name[3:])  
8 print(name[:6])  
9 print(name * 5)  
10 print(name + "Have a Good Day")  
11
```

The terminal at the bottom shows the output of running the script:

```
PS F:\Internship2> python "F:\Internship2\string.py"  
Name Is : nirav mojjagar  
n  
v  
av mojjagar  
nirav  
nirav mojjagarnirav mojjagarnirav mojjagarnirav mojjagarnirav mojjagar  
nirav mojjagarHave a Good Day  
PS F:\Internship2>
```