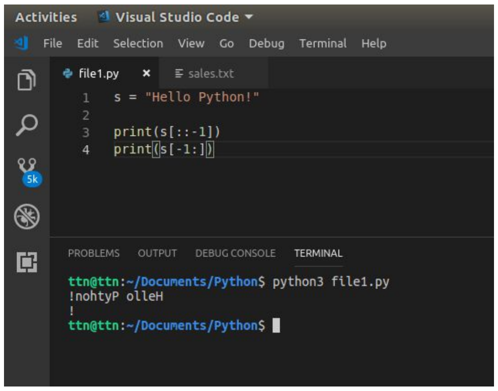
## Exercise

1. **Given string my_string = ‘Hello Python!’, Reverse the string using slicing, print ’!’ using indexing**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file1.py
sales.txt
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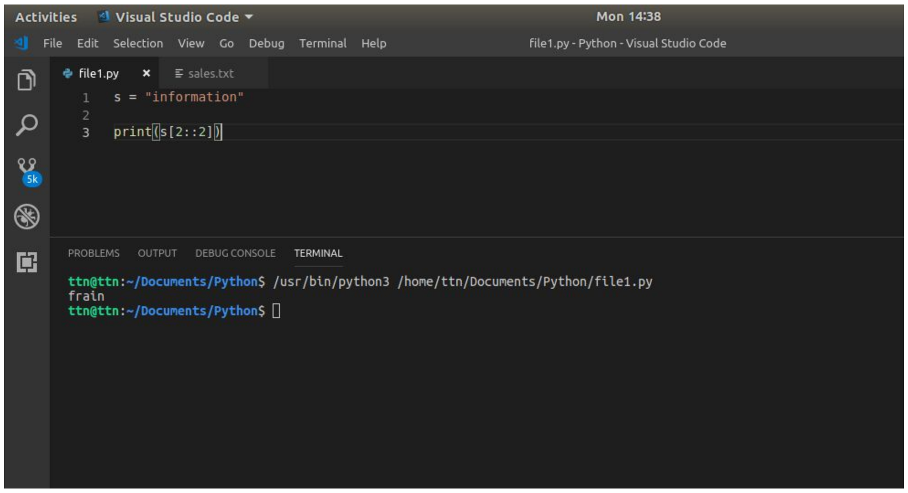
```python
s = "Hello Python!"

print(s[::-1])
print(s[-1:])
```

```
ttn@ttn:~/Documents/Python$ python3 file1.py
!nohtyP olleH
!
ttn@ttn:~/Documents/Python$
```

2. **Use slicing to get word “frain” from “information”.**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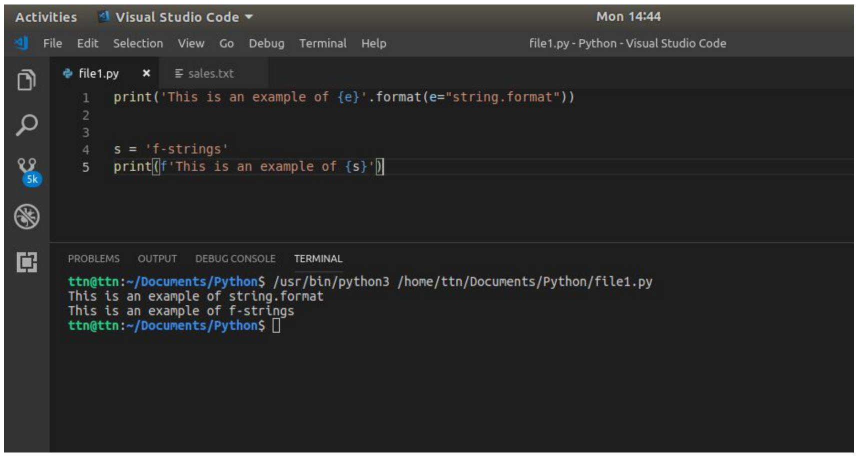
```python
s = "information"

print(s[2::2])
```

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
frain
ttn@ttn:~/Documents/Python$
```

3. **Using examples explain string.format and f-strings**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```python
print('This is an example of {e}'.format(e="string.format"))


s = 'f-strings'
print(f'This is an example of {s}')
```

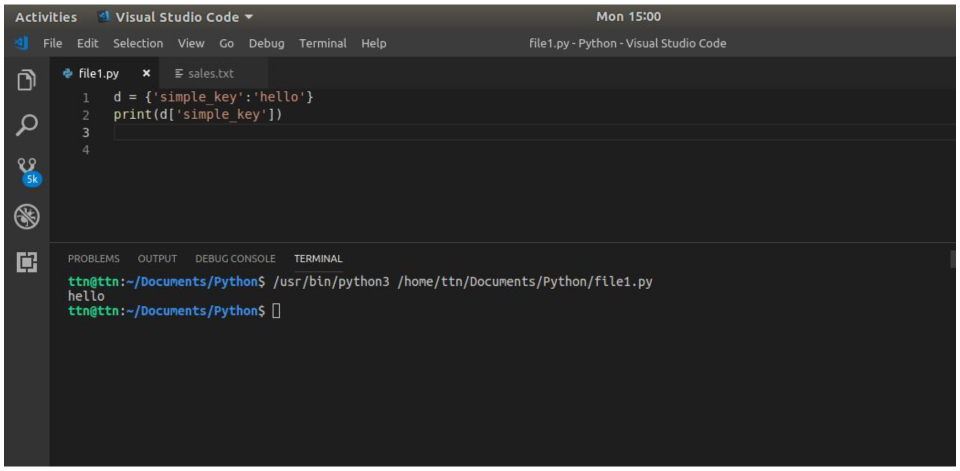
```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
This is an example of string.format
This is an example of f-strings
ttn@ttn:~/Documents/Python$
```

4. **Can we sort a dictionary? Why or why not?**

   No, we cannot sort a dictionary. Dictionaries uses key, value pairs and those key, value pairs can be sorted using .sorted() function but a dictionary as a whole cannot be sorted because they are unordered mappings.

5. **Using keys and indexing, grab the 'hello' from the following dictionaries:**

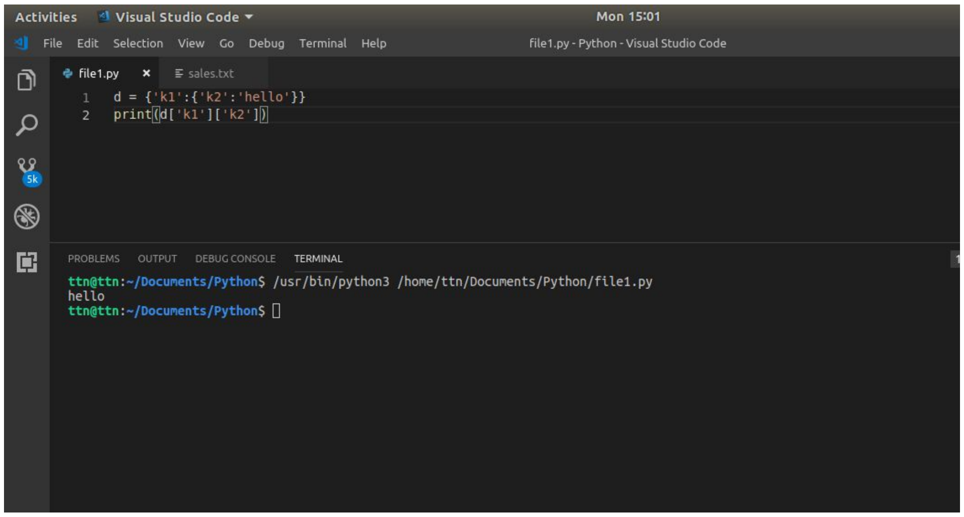
   **d = {'simple_key':'hello'}**



```
d = {'simple_key':'hello'}
print(d['simple_key'])
```

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
hello
ttn@ttn:~/Documents/Python$ 
```

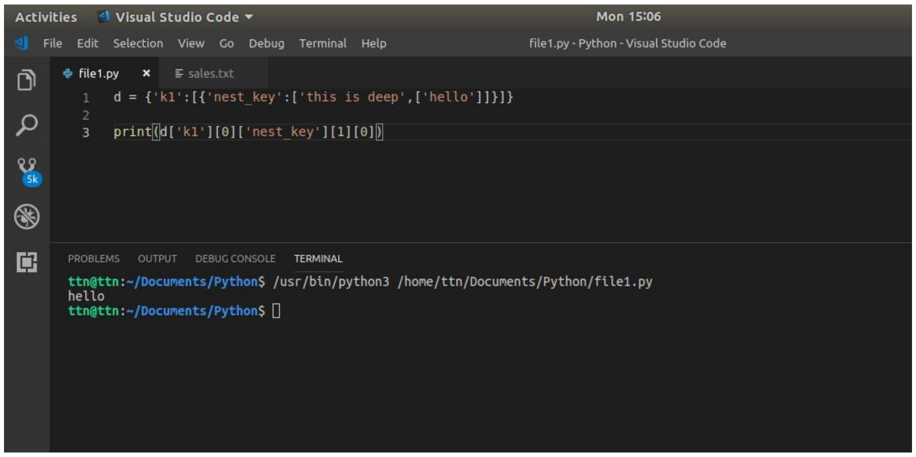
   **d = {'k1':{'k2':'hello'}}**



```
d = {'k1':{'k2':'hello'}}
print(d['k1']['k2'])
```

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
hello
ttn@ttn:~/Documents/Python$ 
```

d = {'k1':[{'nest_key':['this is deep',['hello']]}]}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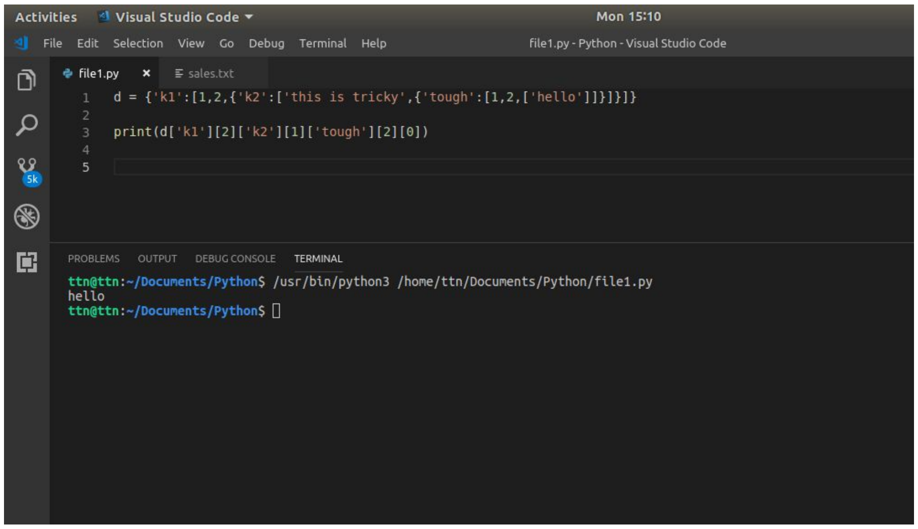
```
d = {'k1':[{'nest_key':['this is deep',['hello']]}]}

print(d['k1'][0]['nest_key'][1][0])
```

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
hello
ttn@ttn:~/Documents/Python$
```

d = {'k1':[1,2,{'k2':['this is tricky',{'tough':[1,2,['hello']]}]}]}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file1.py
sales.txt
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```
d = {'k1':[1,2,{'k2':['this is tricky',{'tough':[1,2,['hello']]}]}]}

print(d['k1'][2]['k2'][1]['tough'][2][0])


```

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
hello
ttn@ttn:~/Documents/Python$
```