In [1]:

```
1.  Create a dictionary with 5 US states as keys and and their capitals as values.
2.  print all (key, value) pairs -- what method do you use.
3.  print only keys.
4.  print only values.
5.  length of the dictionary
6.  make a list with these keys as elements.
7.  make a list with these values as elements.
8.  Swap the keys and values in the dictionary -- keys should become values and valu
9.  create another dictionary in which keys are US states and values as the length c
10. create another dictionary in which keys are US states and values as the reversed
11. create another dictionary in which keys are US states and values as the sum of a
12. get the value at key number 3
13. What's the sum of lengths of key1 and key2
14. What's the sum of lengths of value1 and value2
15. What's the sum of lengths of key1 and value3
```

```
  Cell In [1], line 1
    1.  Create a dictionary with 5 US states as keys and and their capital
s as values.
      ^
SyntaxError: invalid syntax
```

In [18]:

```
#1. Create a dictionary with 5 US states as keys and and their capitals as values.
def dictionar(x):
    US_dict={
        "Colorado" : "Denver",
         "Texas" : "Austin",
         "California" : "Sacramento",
         "New York" : "Albany",
         "Florida" : "Tallahassee"
    }

print(US_dict)


```

```
{'Colorado': 'Denver', 'Texas': 'Austin', 'California': 'Sacramento', 'New
York': 'Albany', 'Florida': 'Tallahassee'}
```

In [15]:

```
for x, y in US_dict.items():
  print(x, y)
```

```
Colorado Denver
Texas Austin
California Sacramento
New York Albany
Florida Tallahassee
```

In [20]:

```
#2. print all (key, value) pairs -- what method do you use.
x= US_dict.items()
print(x)
```

```
dict_items([('Colorado', 'Denver'), ('Texas', 'Austin'), ('California', 'S
acramento'), ('New York', 'Albany'), ('Florida', 'Tallahassee')])
```

In [21]:

```
#3. print only keys.
US_dict.keys()
```

Out[21]:

```
dict_keys(['Colorado', 'Texas', 'California', 'New York', 'Florida'])
```

In [22]:

```
#4. print only values.
US_dict.values()
```

Out[22]:

```
dict_values(['Denver', 'Austin', 'Sacramento', 'Albany', 'Tallahassee'])
```

In [25]:

```
#5. length of the dictionary
print(len(US_dict))
```

```
5
```

In [44]:

```
#6. make a list with these keys as elements.
print(list(US_dict.keys()))


```

```
['Colorado', 'Texas', 'California', 'New York', 'Florida']
```

In [45]:

```
#7. make a list with these values as elements.
print(list(US_dict.values()))
```

```
['Denver', 'Austin', 'Sacramento', 'Albany', 'Tallahassee']
```

In [47]:

```
#7. make a list with these keys as elements.
def my_dict(i):
    my_list=[]
    for x in i.keys():
        my_list.append(x)
    return my_list

my_dict(US_dict)

```

Out[47]:

```
['Colorado', 'Texas', 'California', 'New York', 'Florida']
```

In [48]:

```
#7. make a list with these values as elements.
def my_dict(i):
    my_list=[]
    for x in i.values():
        my_list.append(x)
    return my_list

my_dict(US_dict)

```

Out[48]:

```
['Denver', 'Austin', 'Sacramento', 'Albany', 'Tallahassee']
```

In [60]:

```
#8. Swap the keys and values in the dictionary -- keys should become values and valu


new_dict = dict([(value, key) for key, value in US_dict.items()])
for i in new_dict:
    print(i, " :  ", new_dict[i])

```

```
Denver  :   Colorado
Austin  :   Texas
Sacramento  :   California
Albany  :   New York
Tallahassee  :   Florida
```

In [63]:

```
#9. create another dictionary in which keys are US states and values as the length o
#def new_dict(dictionary):
#print(dict())

x=US_dict.items()
print(x)
new_dict=dict([(key,len(key)) for key,value in US_dict.items()])
for i in new_dict:
    print(i,": " , new_dict[i])
```

```
dict_items([('Colorado', 'Denver'), ('Texas', 'Austin'), ('California', 'S
acramento'), ('New York', 'Albany'), ('Florida', 'Tallahassee')])
Colorado :  8
Texas :  5
California :  10
New York :  8
Florida :  7
```

In [64]:

```
#10.    create another dictionary in which keys are US states and values as the reve
x=US_dict.items()
print(x)
new_dict=dict([(key,key[::-1]) for key,value in US_dict.items()])
for i in new_dict:
    print(i,": " , new_dict[i])
```

```
dict_items([('Colorado', 'Denver'), ('Texas', 'Austin'), ('California', 'S
acramento'), ('New York', 'Albany'), ('Florida', 'Tallahassee')])
Colorado :  odaroloC
Texas :  saxeT
California :  ainrofilaC
New York :  kroY weN
Florida :  adirolF
```

In [85]:

```
#11.    create another dictionary in which keys are US states and values as the sum
Y=US_dict.items()
print(Y)
new_dict=dict([(key,sum(ord(x) for x in key)) for key,value in US_dict.items()])
for x in new_dict.keys():
    print(x,": " , new_dict[x])


```

```
dict_items([('Colorado', 'Denver'), ('Texas', 'Austin'), ('California', 'S
acramento'), ('New York', 'Albany'), ('Florida', 'Tallahassee')])
Colorado :  819
Texas :  517
California :  1016
New York :  751
Florida :  705
```

In [95]:

```
#12.    get the value at key number 3

print(list(US_dict.keys())[2])
```

```
California
```

In [92]:

```
#13.    What's the sum of lengths of key1 and key2
keys_list = list(US_dict.keys())
values_list = list(US_dict.values())

x = len(keys_list[0] + keys_list[1])
#x=len("Colorado")+len("Texas")
print(x)


```

```
13
```

In [93]:

```
#14.    What's the sum of lengths of value1 and value2
x=len(values_list[0] + values_list[1])
print(x)
```

```
12
```

In [94]:

```
#15.    What’s the sum of lengths of key1 and value3
x=len(keys_list[0] + values_list[2])
print(x)

```

```
18
```

In [ ]:

```

```