```python
# Illustration of iteration over the list and dictionary
```

```python
#using  for loop
list=[1,3,5,7,9]
for i in list:
  print(i)
```

```
1
3
5
7
9
```

```python
# For loop and Range
list=[1,3,5,7,9]
length=len(list)
for i in range(length):
  print(list[i])
```

```
1
3
5
7
9
```

```python
#Using while loop
list=[1,3,5,7,9]
length=len(list)
i=0
while i<length:
  print(list[i])
  i += 1
```

```
1
3
5
7
9
```

```
#Using list comprehension
list=[1,3,5,7,9]
[print(i) for i in list]
```

```
    1
    3
    5
    7
    9
    [None, None, None, None, None]
```

```
#Access key using the built keys()
statesAndCapitals= {
    'Gujrat':'Gandhinagar',
    'Maharashtra':'Mumbai',
    'Rajasthan':'Jaipur',
    'Bihar':'Patna'
}
keys = statesAndCapitals.keys()
print(keys)
```

```
    dict_keys(['Gujrat', 'Maharashtra', 'Rajasthan', 'Bihar'])
```

```
#Access key without using the key()
statesAndCapitals= {
    'Gujrat':'Gandhinagar',
    'Maharashtra':'Mumbai',
    'Rajasthan':'Jaipur',
    'Bihar':'Patna'
}
print('List of given states:\n')
for state in statesAndCapitals:
  print(state)
```

```
    List of given states:

    Gujrat
    Maharashtra
    Rajasthan
    Bihar
```

```python
#Iterate through all values using values()
statesAndCapitals= {
    'Gujrat':'Gandhinagar',
    'Maharashtra':'Mumbai',
    'Rajasthan':'Jaipur',
    'Bihar':'Patna'
}
print('List of given capitals:\n')
for capital in statesAndCapitals.values():
  print(capital)
```

```
    List of given capitals:

    Gandhinagar
    Mumbai
    Jaipur
    Patna
```

```python
#Iterate through all key, values pairs using items()
statesAndCapitals= {
    'Gujrat':'Gandhinagar',
    'Maharashtra':'Mumbai',
    'Rajasthan':'Jaipur',
    'Bihar':'Patna'
}
print('List of given states and their capitals:\n')
for state,capital in statesAndCapitals.items():
  print(state,":",capital)
```

```
    List of given states and their capitals:

    Gujrat : Gandhinagar
    Maharashtra : Mumbai
    Rajasthan : Jaipur
    Bihar : Patna
```

```
#access both key and value without using items()
statesAndCapitals= {
    'Gujrat':'Gandhinagar',
    'Maharashtra':'Mumbai',
    'Rajasthan':'Jaipur',
    'Bihar':'Patna'
}
print('List of given capitals:\n')
for i in statesAndCapitals:
  print(i,'->',statesAndCapitals[i])
```

```
    List of given capitals:

    Gujrat -> Gandhinagar
    Maharashtra -> Mumbai
    Rajasthan -> Jaipur
    Bihar -> Patna
```

```
#Print items in key value in pair
statesAndCapitals= {
    'Gujrat':'Gandhinagar',
    'Maharashtra':'Mumbai',
    'Rajasthan':'Jaipur',
    'Bihar':'Patna'
}
keys=statesAndCapitals.items()
print(keys)
```

```
    dict_items([('Gujrat', 'Gandhinagar'), ('Maharashtra', 'Mumbai'), ('Rajasth
```

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