Assignment 1

Q 1. Create a JSON file (employee.json) containing employee information of minimum 5 employees. Each employee information consists of Name, DOB, Height, City, State. Write a python program that reads this information from the JSON file and saves the information into a list of objects of Employee class. Finally print the list of the Employee objects.

JSON CODE : { "employee": [

```
    {
       "id": "01",
       "name": "Amit",
       "DOB": "23-09-1997",
       "Height": "5'7",
       "City": "Hassan",
       "State":"Karnataka"
    },

    {
       "id": "02",
       "name": "sunil",
       "DOB": "20-06-199",
       "Height": "5'9",
       "City": "Mangalore",
       "State":"Karnataka"
    },

    {
       "id": "03",
       "name": "Arun",
       "DOB": "13-10-1997",
       "Height": "5'1",
       "City": "Bangalore",
       "State":"Karnataka"
    },
    {
       "id": "04",
       "name": "Kavitha",
       "DOB": "30-01-1999",
       "Height": "5'3",
       "City": "Hubli",
       "State":"Karnataka"
    },
    {
       "id": "05",
       "name": "renita",
       "DOB": "12-04-1991",
       "Height": "5'5",
       "City": "davangere",
       "State":"Karnataka"
    }


]}
```

In [3]:
```
import json

f = open('C:/Users/admin/OneDrive/Desktop/Pruthvi/Employee_json.json',)

data = json.load(f)

for i in data['employee']:
    print(i)


f.close()
```

```
{'id': '01', 'name': 'Amit', 'DOB': '23-09-1997', 'Height': "5'7", 'City': 'Hassan', 'State': 'Karnataka'}
{'id': '02', 'name': 'sunil', 'DOB': '20-06-199', 'Height': "5'9", 'City': 'Mangalore', 'State': 'Karnataka'}
{'id': '03', 'name': 'Arun', 'DOB': '13-10-1997', 'Height': "5'1", 'City': 'Bangalore', 'State': 'Karnataka'}
{'id': '04', 'name': 'Kavitha', 'DOB': '30-01-1999', 'Height': "5'3", 'City': 'Hubli', 'State': 'Karnataka'}
{'id': '05', 'name': 'renita', 'DOB': '12-04-1991', 'Height': "5'5", 'City': 'davangere', 'State': 'Karnataka'}
```

Q 2.Create a dictionary of any 7 Indian states and their capitals. Write this into a JSON file.

In [41]:
```
import json
states = {"Andhra Pradesh": "Amaravati","Gujarat":"Gandhinagar","Karnataka":"Bangalore","Maharashtra":"Mumbai","Tamil Nadu":"Chennai","Uttarakhand":"Dehradun","Odisha":"Bhubaneswar"}
type(states)
states_dict = json.dumps(states,indent=2)
print(states_dict)
```

```
{
  "Andhra Pradesh": "Amaravati",
  "Gujarat": "Gandhinagar",
  "Karnataka": "Bangalore",
  "Maharashtra": "Mumbai",
  "Tamil Nadu": "Chennai",
  "Uttarakhand": "Dehradun",
  "Odisha": "Bhubaneswar"
}
```

Assignment 2: Q 1.Create a class named 'Dog'. It should have a constructor which accepts its name, age and coat color. You must perform the following operations: a. It should have a function 'description()' which prints the name and age of the dog. b. It should have a function 'get_info()' which prints the coat color of the dog. c. Create child classes 'JackRussellTerrier' and 'Bulldog' which is inherited from the class 'Dog'. It should have at least two methods of its own. d. Create objects and implement the above functionalities.

In [33]:
```
class dog :
    def __init__(self,name,age,color):
        self.name = name
        self.age =age
        self.color = color
    def description(self):
        print("name of the dog :",self.name)
        print("age of the dog :",self.age)

    def get_info(self):
        print("color of  the dog :",self.color)

class JackRussellTerrier(dog):
    def __init__(self,name,age,color,gender,owner):
        super().__init__(name,age,color)
        self.owner = owner
        self.gender = gender

    def display_owner(self):
        print("owner name of the dog :",self.owner)

    def display_gender(self):
        print("gender of the dog : ",self.gender)



class bulldog(dog):
    def __init__(self,name,age,color,gender,owner):
        super().__init__(name,age,color)
        self.owner = owner
        self.gender =gender

    def display_owner(self):
        print("owner name of the dog :",self.owner)

    def display_gender(self):
        print("gender of the dog : ",self.gender)


inp1=input("Enter the name of the dog:")
inp2 =int(input("enter the age of the dog:"))
inp3 = input("enter the color of the dog:")
inp4 = input("Enter the owner name  of the dog :")
inp5 = input("Enter the gender of the dog:")



jack=JackRussellTerrier(inp1,inp2,inp3,inp4,inp5)
print("-------------------JackRussellTerrier-------------")
jack.description()
jack.get_info()
jack.display_owner()
jack.display_gender()

inp8=input("Enter the name of the dog:")
inp9 =int(input("enter the age of the dog:"))
inp10 = input("enter the color of the dog:")
inp11 = input("Enter the owner name  of the dog :")
inp12 = input("Enter the gender of the dog:")



bull=bulldog(inp8,inp9,inp10,inp11,inp12)
print("-------------------BULLDOG-------------")
bull.description()
bull.get_info()
bull.display_owner()
bull.display_gender()
```

```
Enter the name of the dog:Blacky
enter the age of the dog:12
enter the color of the dog:black
Enter the owner name  of the dog :pruthv
Enter the gender of the dog:male
-------------------JackRussellTerrier-------------
name of the dog : Blacky
age of the dog : 12
color of  the dog : black
owner name of the dog : male
gender of the dog :  pruthv
Enter the name of the dog:tiger
enter the age of the dog:3
enter the color of the dog:white
Enter the owner name  of the dog :poorva
Enter the gender of the dog:male
-------------------BULLDOG-------------
name of the dog : tiger
age of the dog : 3
color of  the dog : white
owner name of the dog : male
gender of the dog :  poorva
```

In [ ]: