

```
In [1]: name = input("What's your name?")
print(f"Hello {name}")
```

Hello Priya

```
In [2]: names = [] ## empty list

for i in range(3):
    names.append(input("What's your name?"))

## sort in alphabetic order
for name in sorted(names):
    print(f"Hello {name}")
```

Hello David
Hello Priya
Hello Sree

If I run this program again , all of the names are lost

open - open() function is used to interact with files. It allows you to open a file and returns a file object, which you can then use to read from, write to, or perform other operations on the file

the primary way to "close" a resource, especially files, is by using the close() method.

```
In [9]: name = input("What's your name?")

file = open("names.txt", "w")
file.write(name)
file.close()
```

The names are not being saved when I run the program again.

```
In [13]: name = input("What's your name?")

file = open("names.txt", "a")    # 'a' = append mode
file.write(f"{name} \n")

file = open("names.txt", "r")
print(file.read())
```

David
David
Priya
Sree
Diviya

```
In [14]: ## Alternative Methods for Saving Data Without Using the Close Method
name = input("What's your name?")

with open("names.txt", "a") as file:
    file.write(f"{name} \n")
```

```
with open("names.txt", "r") as file:  
    print(file.read())
```

David
David
Priya
Sree
Diviya
Sree

```
In [15]: name = input("What's your name?")  
with open("names.txt", "a") as file:  
    file.write(f"{name}\n")  
  
with open("names.txt", "r") as file:  
    lines = file.readlines()  
  
for line in lines:  
    print("hello ", line.strip())
```

hello David
hello Priya
hello Sree
hello Diviya
hello Sree
hello Vishnu

```
In [16]: ## sorting the names  
names = []  
  
with open("names.txt") as file:  
    for line in file:  
        names.append(line.strip())  
  
for name in sorted(names):  
    print(f"hello {name}")
```

hello David
hello Diviya
hello Priya
hello Sree
hello Sree
hello Vishnu

OR

```
In [17]: with open("names.txt") as file:  
    for line in sorted(file):  
        print(f"hello", line.rstrip())
```

hello David
hello Diviya
hello Priya
hello Sree
hello Sree
hello Vishnu

```
In [18]: with open("names.txt") as file:  
    for line in sorted(file , reverse=True):  
        print(f"hello",line.rstrip())
```

```
hello Vishnu  
hello Sree  
hello Sree  
hello Priya  
hello Diviya  
hello DavidDavid
```

Store the information of the students

```
In [22]: info = input("Your details:")  
  
with open("info.csv","a") as file:  
    file.write(f"{info} \n")  
  
with open("info.csv", "r") as file:  
    print(file.read())
```

```
Fathima , Begur  
Priya, Akshya Nagar  
Sreepriya,Begur
```

```
In [ ]: ## Accesing the information
```

```
In [23]: with open("info.csv","r") as file:  
    for line in file:  
        row = line.rstrip().split(",")  
        print(f"{row[0]} is in {row[1]}")
```

```
Fathima is in Begur  
Priya is in Akshya Nagar  
Sreepriya is in Begur
```

```
In [24]: with open("info.csv","r") as file:  
    for line in file:  
        name , house = line.rstrip().split(",")  
        print(f"{name} is in {house}")
```

```
Fathima is in Begur  
Priya is in Akshya Nagar  
Sreepriya is in Begur
```

```
In [25]: ## sort  
with open("info.csv","r") as file:  
    for line in sorted(file):  
        name , house = line.rstrip().split(",")  
        print(f"{name} is in {house}")
```

```
Fathima is in Begur  
Priya is in Akshya Nagar  
Sreepriya is in Begur
```

```
In [26]: students = []

with open("info.csv","r") as file:
    for line in file:
        name , house = line.rstrip().split(",")
        student = {"name":name , "house":house}
        students.append(student)

for student in sorted(students, key=lambda student:student["house"]):
    print(f"{student['name']} is in {student['house']}")
```

Priya is in Akshya Nagar
Fathima is in Begur
Sreepriya is in Begur

```
In [27]: students = []

with open("info.csv","r") as file:
    for line in file:
        name , house = line.rstrip().split(",")
        student = {"name":name , "house":house}
        students.append(student)

for student in sorted(students, key=lambda student:student["name"]):
    print(f"{student['name']} is in {student['house']}")
```

Fathima is in Begur
Priya is in Akshya Nagar
Sreepriya is in Begur

```
In [28]: import csv

students = []

with open("info.csv","r") as file:
    reader=csv.reader(file)
    for name,home in reader:
        students.append({"name":name , "house":home})

for student in sorted(students, key=lambda student:student["name"]):
    print(f"{student['name']} is in {student['house']}")
```

Fathima is in Begur
Priya is in Akshya Nagar
Sreepriya is in Begur

```
In [78]: inform = input("Your details:")

with open("inform.csv","a") as file:
    file.write(f"{inform} \n")

with open("inform.csv", "r") as file:
    print(file.read())
```

```
Priya,"14th Main, Begur"  
Sree,AKSHYA NAGAR  
Diviya,"5TH CROSS, MP"
```

```
In [79]: with open("inform.csv","r") as file:  
    for line in file:  
        name , house = line.rstrip().split(",")  
        print(f"{name} is in {house}")
```

```
-----  
ValueError                                     Traceback (most recent call last)  
Cell In[79], line 3  
      1 with open("inform.csv","r") as file:  
      2     for line in file:  
----> 3         name , house = line.rstrip().split(",")  
      4         print(f"{name} is in {house}")  
  
ValueError: too many values to unpack (expected 2)
```

```
In [80]: import csv  
  
informs = []  
  
with open("inform.csv") as file:  
    reader=csv.reader(file)  
    for row in reader:  
        informs.append({"name":row[0] , "home":row[1]})  
  
for information in sorted(informs, key=lambda information:information["name"]):  
    print(f"{information['name']} is in {information['home']}")
```

```
Diviya is in 5TH CROSS, MP  
Priya is in 14th Main, Begur  
Sree is in AKSHYA NAGAR
```

```
In [81]: import csv  
  
informs = []  
  
with open("inform.csv") as file:  
    reader=csv.reader(file)  
    for name,home in reader:  
        informs.append({"name":name , "home":home})  
  
for information in sorted(informs, key=lambda information:information["name"]):  
    print(f"{information['name']} is in {information['home']}")
```

```
Diviya is in 5TH CROSS, MP  
Priya is in 14th Main, Begur  
Sree is in AKSHYA NAGAR
```

```
In [84]: informa = input("Your details:")  
  
with open("informa.csv","a") as file:  
    file.write(f"{informa} \n")
```

```
with open("informa.csv", "r") as file:  
    print(file.read())
```

```
home,name  
"5TH CROSS, MP",Diviya  
"14th Main, Begur", Priya
```

```
In [95]: import csv
```

```
informas = []  
  
with open("informa.csv") as file:  
    reader=csv.reader(file)  
    for name,home in reader:  
        informas.append({"name":name , "home":home})  
  
for information in sorted(informas, key=lambda information:information["name"]):  
    print(f"{information['name']} is in {information['home']}")
```

```
14th Main, Begur is in Priya  
5TH CROSS, MP is in Diviya  
home is in name
```

```
In [100...]: import csv
```

```
informas = []  
  
with open("informa.csv") as file:  
    reader = csv.DictReader(file)  
    # Normalize headers (strip spaces, Lowercase)  
    reader.fieldnames = [h.strip().lower() for h in reader.fieldnames]  
  
    for row in reader:  
        informas.append({"name": row["name"].strip(), "home": row["home"].strip()})  
  
for info in sorted(informas, key=lambda x: x["name"]):  
    print(f"{info['name']} is in {info['home']}")
```

```
Diviya is in 5TH CROSS, MP  
Priya is in 14th Main, Begur
```

OR

```
In [111...]: import csv
```

```
informas = []  
  
with open("informa.csv") as file:  
    reader = csv.DictReader(file,fieldnames=["home","name"])  
  
    for row in reader:  
        informas.append({"name": row["name"], "home": row["home"]})  
  
for info in sorted(informas, key=lambda x: x["name"]):  
    print(f"{info['name']} is in {info['home']}")
```

```
Priya is in 14th Main, Begur  
Diviya is in 5TH CROSS, MP  
name is in home
```

```
In [104...]  
  
import csv  
  
name=input("what's your name?:")  
home=input("whers's your house?:")  
  
with open("stu.csv","a") as file:  
    writer = csv.writer(file)  
    writer.writerow([name,home])  
    ## Here in the home, I didn't use double quotes
```

```
In [105...]  
with open("stu.csv", "r") as file:  
    print(file.read())  
    ## assigns double quotes for the home  
  
Sree," 5TH CROSS, MP"  
  
Diviya,"14th Main, Begur"  
  
SREE,"5th main, akshyanagar"
```

```
In [107...]  
  
import csv  
  
name=input("what's your name?:")  
home=input("whers's your house?:")  
  
with open("stu.csv","a") as file:  
    writer = csv.DictWriter(file,fieldnames=["name","home"])  
    writer.writerow({"name":name , "home":home})
```

```
In [108...]  
with open("stu.csv", "r") as file:  
    print(file.read())  
  
Sree," 5TH CROSS, MP"  
  
Diviya,"14th Main, Begur"  
  
SREE,"5th main, akshyanagar"  
  
Divya,Shivajinagar
```