1) Write a Python program to count the frequency of words in a file:
CODE:

```
from collections import Counter
def word_count(fname):
with open(fname) as f:
return Counter(f.read().split())
print("Number of words in the file :",word_count("test.txt"))
```

2) Write a program for Sorting objects of User Defined Class related to your project statement.
CODE:

```
class STUD:
def __init__(self, a, b):
  self.a = a
  self.b = b

def __repr__(self):
  return str((self.a, self.b))

stud = [STUD("Name", 1),
STUD("Field_of_study", 3),
   STUD("Regno", 2),
  STUD("GPA", 4),
  STUD("Dept", 3)]

print(sorted(stud, key=lambda x: x.b))
```

3) Write a function in Python to count and display the total number of words in a text file
CODE:

```
file = open("C:\data.txt", "rt")
data = file.read()
words = data.split()
print('Number of words in text file :', len(words))
```

4) Sort JSON keys in and write them into a file Sort following JSON data alphabetical order of keys

CODE:

```
Import json

SampleJson={“id”:1,”name”:”value2”,”age”:29}

Print(“Started writing JSON data into a file”)
```

```
 with open(“sampleJson.json”,”w”) as write_file:
      json.dump(sampleJson,write_file,indent=4,sort_keys=True)
print(“Done writing”)
```

5) Convert the vehicle object into json

CODE:

```
import json
from json import JSONEncoder

class Vehicle:
   def __init__(self, name, engine, price):
      self.name = name
      self.engine = engine
      self.price = price

class VehicleEncoder(JSONEncoder):
      def default(self, o):
         return o.__dict__

vehicle = Vehicle("Toyota Rav4", "2.5L", 32000)

print("Encode Vehicle Object into JSON")
vehicleJson = json.dumps(vehicle, indent=4, cls=VehicleEncoder)
print(vehicleJson)
```