```
def WriteInformation():
    first_name=input('Enter first name: ')
last_name=input('Enter last name: ')
age=input('Enter age: ')

Informationfile=open('personalinformation.txt','w')

Informationfile.write(first_name+'\n')
Informationfile.write(last_name+'\n')
Informationfile.write(age+'\n')

Informationfile.close()

print('personal information.\n')

WriteInformation()

def read():
    infile=open('personalinformation.txt','r')
    filecontents=infile.read()
    infile.close()
    print(filecontents)

read()
```

main.py

```
1  def WriteNumbers():
2      outfile = open('numbers.txt','a')
3      num1 = int(input('enter number 1: '))
4      num2 = int(input('enter number 2: '))
5      num3 = int(input('enter number 3: '))
6      sum = num1 + num2 + num3
7      avg = sum / 3
8      outfile.write('The 1st number is ' + str(num1) + '\n')
9      outfile.write('The 2nd number is ' + str(num2) + '\n')
10     outfile.write('The 3rd number is ' + str(num3) + '\n')
11     outfile.write('The avg number is ' + str(avg) + '\n')
12     outfile.write('The total number is ' + str(sum) + '\n')
13     print('data recorded.\n')
14 WriteNumbers()
15 def read():
16     infile = open('numbers.txt','r')
17     fileContents = infile.read()
18     infile.close()
19     print(fileContents)
20
21 read()
```

input

```
enter number 1:
```

```python
def sales():
    total_sales = 0.0
    salary = int(input('Enter the salary: $'))
    num_days = int(input('Enter the days of sales: '))
    sales_and_salary_file = open('sales_and_salary.txt','a')
    sales_and_salary_file.write('The days of sales: ' + str(num_days) + '\n')
    for count in range(1,num_days + 1):
        sales = float(input('Enter the sales for day # ' + str (count) + ' : '))
        sales_and_salary_file.write('The sales for day # ' + str (count) + ': ' + str(sales) + '\n')
        total_sales += sales
    sales_and_salary_file.write(f'The total sales is {total_sales:,.2f}\n')
    if total_sales > 1000:
        salary = 1.1 * salary
        sales_and_salary_file.write(f'The salary after adding 10% commission is ${salary:,.2f}')
    else:
        sales_and_salary_file.write(f'The salary is ${salary:,.2f}')
    sales_and_salary_file.close()
    print('data recorded.\n')
sales()
def Read():
    sales_and_salary_file = open('sales_and_salary.txt','r')
    line = sales_and_salary_file.readline()
    while line != '':
        line_content = line.rstrip('\n')
        print(line_content)
        line = sales_and_salary_file.readline()
    sales_and_salary_file.close()
Read()
```

input

```
Enter the salary: $
```

main.py

```
1  def main():
2      num_emps = int(input('Enter number of employee records: '))
3      emp_file = open('employees.txt','w')
4      for count in range (1, num_emps + 1):
5          print('Enter data for employee number', count)
6          name = input('Name: ')
7          id_num = input('ID Number: ')
8          dept = input('Department: ')
9          emp_file.write(name + '\n')
10         emp_file.write(id_num + '\n')
11         emp_file.write(dept + '\n')
12         print()
13     emp_file.close()
14     print('recorded.\n')
15 main()
16 def read():
17     infile = open('employees.txt','r')
18     file_contents = infile.read()
19     infile.close()
20     print(file_contents)
21 read()
```

input

```
Enter number of employee records:
```

main.py

```
from email import message
import tkinter as tk
from tkinter import messagebox
win = tk.Tk()
win.geometry("300x200")
win.title("Customer Information")
lblLastname = tk.Label(win, text = "Enter the lastname: ").grid(column = 0, row = 0) # Label widget
lblFirstname = tk.Label(win, text = "Enter the firstname: ").grid(column = 0, row = 1)
lblAddress = tk.Label(win, text = "Enter the address: ").grid(column = 0, row = 2)
lblCity = tk.Label(win, text = "Enter the city: ").grid(column = 0, row = 3)
lblState = tk.Label(win, text = "Enter the state: ").grid(column = 0, row = 4)
lblZipcode = tk.Label(win, text = "Enter the zipcode: ").grid(column = 0, row = 5)
def write():
    text_file = open("Customers.txt","a")
    content = text_file.write("\nConfirmation: " + str(LN.get()) + ", " + str(FN.get()) + "\n"
                              + str(AR.get()) + "\n" + str(CT.get()) + ", " + str(ST.get()) + " "
                              + str(ZC.get()))
    text_file.close()
    messagebox.showinfo("information","Data Recorded")
def quit():
    messagebox.showinfo("information","Thank you")
    win.destroy()
def submit():
    messagebox.showinfo("information","entered :" + LN.get() + "," + FN.get() + "\n"
                        + AR.get() + "\n" + CT.get() + ", " + ST.get() + " " + ZC.get())
LN = tk.StringVar()
txtLastname = tk.Entry(win, width = 12, textvariable = LN).grid(column = 1, row = 0)
FN = tk.StringVar()
txtFirstname = tk.Entry(win, width = 12, textvariable = FN).grid(column = 1, row = 1)
AR = tk.StringVar()
txtAddress = tk.Entry(win, width = 12, textvariable = AR).grid(column = 1, row = 2)
CT = tk.StringVar()
txtCity = tk.Entry(win, width = 12, textvariable = CT).grid(column = 1, row = 3)
ST = tk.StringVar()
txtState = tk.Entry(win, width = 12, textvariable = ST).grid(column = 1, row = 4)
ZC = tk.StringVar()
txtZipcode = tk.Entry(win, width = 12, textvariable = ZC).grid(column = 1, row = 5)
btnSubmit = tk.Button(win, text = "Submit", command = submit).grid(column = 0, row = 10)
btnQuit = tk.Button(win, text = "Quit", command = quit).grid(column = 1, row = 10)
btnWrite = tk.Button(win, text = "Transfer", command = write).grid(column = 2, row = 10)
win.mainloop()
submit()
```

main.py

```
from email import message
import tkinter as tk
from tkinter import messagebox
win = tk.Tk()
win.geometry("400x150")
win.title("Numbers, Sum, and Average")
lblNumber1 = tk.Label(win, text = "Enter the first number").grid(column = 0, row = 0)
lblNumber2 = tk.Label(win, text = "Enter the second number").grid(column = 0, row = 1)
lblNumber3 = tk.Label(win, text = "Enter the third number:").grid(column = 0, row = 2)
num1 = tk.StringVar()
txtNumber1 = tk.Entry(win, width = 12, textvariable = num1).grid(column = 1, row = 0)
num2 = tk.StringVar()
txtNumber2 = tk.Entry(win, width = 12, textvariable = num2).grid(column = 1, row = 1)
num3 = tk.StringVar()
txtNumber3 = tk.Entry(win, width = 12, textvariable = num3).grid(column = 1, row = 2)
def write():
    text_file = open("sum_and_average.txt","a")
    total1 = total()
    average1 = average()
    content = text_file.write("The three numbers are: " + str(num1.get()) + ", "
                              + str(num2.get()) + " and " + str(num3.get()) + "\n"
                              + f"The total is {total1:.2f}" + "\n"
                              + f"The average is {average1:.2f}" + "\n")
    text_file.close()
    messagebox.showinfo("Numbers, Sum, and Average","Data Recorded")
def quit():
    messagebox.showinfo("Numbers, Sum, and Average","Thank you...")
    win.destroy()
def total():
    total = float(num1.get()) + float(num2.get()) + float(num3.get())
    messagebox.showinfo("Numbers, Sum, and Average","Total : " + str(total))
    return total
def average():
    average = (float(num1.get()) + float(num2.get()) + float(num3.get())) / 3.0
    messagebox.showinfo("Numbers, Sum, and Average","Average : " + str(average))
    return average
btnTotal = tk.Button(win, text = "total", command = total).grid(column = 0, row = 6)
btnAverage = tk.Button(win, text = "average", command = average).grid(column = 1, row = 6)
btnQuit = tk.Button(win, text = "quit", command = quit).grid(column = 2, row = 6)
btnWrite = tk.Button(win, text = "transfer", command = write).grid(column = 3, row = 6)
win.mainloop()
```

main.py

```python
from multiprocessing import Value
def main():
    name, midterm, final = get_scores()
    total = get_total(midterm, final)
    average = total / 2.0
    print(f'Average grade: {average:.2f}')
    outfile = open('average_and_letter_grade.txt','a')
    outfile.write(f'The average grade: {average:.2f}\n')
    outfile.close()
    letter_grade(average)
    print('Data recorded.\n')
    Read()
def get_scores():
    while True:
        try:
            name = input('Enter the full name: ')
            midterm_score = float(input('Enter the grade of the midterm: '))
            final_exam_score = float(input('Enter the grade of final exam: '))
            return name, midterm_score, final_exam_score
        except Exception as err:
                print(err)
def get_total(midterm, final):
    total = 0.0
    total = midterm + final
    return total
def letter_grade(average):
    outfile = open('average_and_letter_grade.txt','a')
    if average >= 90 and average <= 100:
        print('Letter grade A')
        outfile.write('Letter grade A\n')
    elif average >= 80 and average <= 89:
        #lgrade = 'B'
        print('Letter grade B')
        outfile.write('Letter grade B\n')
    elif average >= 70 and average <= 79:
        #lgrade = 'C'
        print('Letter grade C')
        outfile.write('Letter grade C\n')
    elif average >= 60 and average <= 69:
        #lgrade = 'D'
        print('Letter grade D')
        outfile.write('Letter grade D\n')
    elif average >= 0 and average < 60:
        #lgrade = 'F'
        print('Letter grade F')
        outfile.write('Letter grade F\n')
    else:
        print('The average grade cannot be less than 0 or higher than 100. Please try
        outfile.write('The average grade cannot be less than 0 or higher than 100. Ple
    outfile.close()
def Read():
    grades_file = open('average_and_letter_grade.txt','r')
    line = grades_file.readline()
    while line != '':
        line_content = line.rstrip('\n')
        print(line_content)
        line = grades_file.readline()
    grades_file.close()
if __name__ == '__main__':
    main()
```

input

```
Enter the full name:
```

main.py | random_numbers.txt

```
1  def main():
2      import random
3      numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
4      selected = random.choices(numbers, k=3)
5      print(selected)
6      outfile = open('random_numbers.txt','a')
7      for num in selected:
8          outfile.write(str(num) + '\n')
9      outfile.close()
10     print('data recorded.\n')
11     Read()
12 def Read():
13     infile = open('random_numbers.txt','r')
14     line = infile.readlines()
15     infile.close()
16     for index in range(len(line)):
17         line[index] = line[index].rstrip('\n')
18     print(line)
19 main()
20
```

input

```
['3', '5', '3']
```