Objective: a)   Application using conditional statement

               b)   Application using control statements

               c)   Application using String and String operation (concatenate, split,
                         strip functions)

This application enrolls a student in course and adds information about test mark1 and test mark2 in the course. This application also calculates the average of the two tests for each student enrolled in the course.

This application displays following menu options:

```
C:\Python39\python.exe C:/Users/muham/Desktop/ApplicationProgr


                    Student Registration Application
1.  Add a student
2.  Display all students' information
3.  Search and Display student information
4.  End application


Enter your choice now:
```

User is asked to enter 1 to enroll a student in the course (full information is required including first name, last name, student number, test1 mark, and test2 mark). User enters complete information about the student. If this is the first enrolled student then following message is displayed (as shown below):

"There are no students enrolled yet!"

"Student Added in the list …….."

This message is displayed and student is enrolled.

For this lab (Lab03) do not use files, database, lists, and dictionary. Use String data type to store all the information.

You may use user defined function(s) including main application (function). It is NOT mandatory to use user-defined functions.

```
Enter your choice now:      1
Enter first name:   Muhammad
Enter last name:    Khan
Enter Student number:   N01234567
Enter mark for test1:       68
Enter mark for test2:       85
There are no students enrolled yet!
Student Added in the list......


                    Student Registration Application
1.  Add a student
2.  Display all students' information
3.  Search and Display student information
4.  End application

Enter your choice now:      |
```

When next student is entered (as shown below), message displayed is:

"Student Added in the list ….."

Note: Message "There are no students enrolled yet!" is NOT DISPLAYED because there are already students enrolled in the course.

See the display below:

```
                        Student Registration Application
   1.  Add a student
   2.  Display all students' information
   3.  Search and Display student information
   4.  End application

   Enter your choice now:      1
   Enter first name:    Kenneth
   Enter last name:     Lambart
   Enter Student number:   N03456789
   Enter mark for test1:      83
   Enter mark for test2:      76
   Student Added in the list......


                        Student Registration Application
   1.  Add a student
   2.  Display all students' information
   3.  Search and Display student information
   4.  End application

   Enter your choice now:      |
```

Add another student and you may keep on enrolling any number of students in the
course (as shown below):

```
                        Student Registration Application
   1.  Add a student
   2.  Display all students' information
   3.  Search and Display student information
   4.  End application

   Enter your choice now:      1
   Enter first name:    William
   Enter last name:     Stallings
   Enter Student number:   N06789012
   Enter mark for test1:      65
   Enter mark for test2:      82
   Student Added in the list......


                        Student Registration Application
   1.  Add a student
   2.  Display all students' information
   3.  Search and Display student information
   4.  End application

   Enter your choice now:
```

Now if you use option 1 to add a student and student number already exists, then following message is displayed:

"Student Number exists."

  "Student already enrolled"

   "Continue with correct information ….."   (see below)

```
Enter your choice now:      1
Enter first name:    Andrew
Enter last name:     Dietel
Enter Student number:   N03456789
Enter mark for test1:      78
Enter mark for test2:      91
Student Number exists.
 Student already enrolled.


Continue with correct information.....



                    Student Registration Application
1.   Add a student
2.   Display all students' information
3.   Search and Display student information
4.   End application

Enter your choice now:
```

Student Number is unique. Student Number cannot be repeated. First name and Last name may be repeated (Names are not unique identifier). Student Number is unique identifier. If student number is entered and the student is already enrolled in the course, the message to that effect is displayed (Student Number already exists. Student already enrolled Continue with correct information….)

Student is then added with correct student number (as shown below):

```
                        Student Registration Application
  1.  Add a student
  2.  Display all students' information
  3.  Search and Display student information
  4.  End application


  Enter your choice now:        1
  Enter first name:    Andrew
  Enter last name:     Dietel
  Enter Student number:   N02837469
  Enter mark for test1:        69
  Enter mark for test2:        92
  Student Added in the list......


                        Student Registration Application
  1.  Add a student
  2.  Display all students' information
  3.  Search and Display student information
  4.  End application


  Enter your choice now:
```

If option 2 is chosen, then all enrolled students are displayed (as shown below):

```
 Enter your choice now:      2
                   Displaying Students Data


                                                                        Muhammad Khan
                                                                        N01234567
          First Name              Last Name       Student Number   Mark1    Mark2    Average
          Muhammad                   Khan            N01234567       68       85        76.50
          Kenneth                 Lambart            N03456789       83       76        79.50
          William                Stallings           N06789012       65       82        73.50
          Andrew                    Dietel            N02837469       69       92        80.50



                   Student Registration Application
 1.  Add a student
 2.  Display all students' information
 3.  Search and Display student information
 4.  End application

 Enter your choice now:      |
```
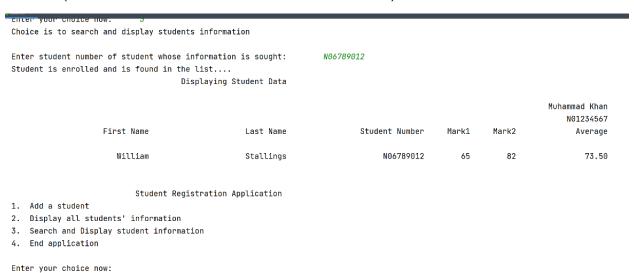
You may observe here that it also displays Average of the two tests for each student enrolled in the course. This is displayed as real number with two digits after the decimal point.

Choosing option 3 will ask student number to search information and display if student is enrolled in the course. This is shown below:

Observe that application asks for student number. User enters student number and application displays the heading with the student information. There will be only one student (if the student number is enrolled in the course).

```
Enter your choice now.        3
Choice is to search and display students information

Enter student number of student whose information is sought:      N06789012
Student is enrolled and is found in the list....
                          Displaying Student Data

                                                                    Muhammad Khan
                                                                    N01234567
            First Name          Last Name        Student Number    Mark1    Mark2     Average

            William            Stallings            N06789012       65       82       73.50


               Student Registration Application
 1.  Add a student
 2.  Display all students' information
 3.  Search and Display student information
 4.  End application

Enter your choice now:
```

If (for option 3) student is not enrolled in the course and student number is NOT there in the list of all students enrolled in the course, then following message is displayed:

"This student is not enrolled yet! No information found …….."

```
                    Student Registration Application
 1.  Add a student
 2.  Display all students' information
 3.  Search and Display student information
 4.  End application

Enter your choice now:      3
Choice is to search and display students information

Enter student number of student whose information is sought:      N07698012
This student is not enrolled yet! No information found....


                    Student Registration Application
 1.  Add a student
 2.  Display all students' information
 3.  Search and Display student information
 4.  End application

Enter your choice now:         |
```

In the end when user choose option 4, message is displayed:

"Application ending now ……" and the application then ends.

```
Enter your choice now:       3
Choice is to search and display students information

Enter student number of student whose information is sought:        N07698012
This student is not enrolled yet! No information found....


                        Student Registration Application
1.   Add a student
2.   Display all students' information
3.   Search and Display student information
4.   End application

Enter your choice now:       4
Application now ending....
```

==*Upload the zipped project folder that includes the source code file.*==

Rubric:

Well documented source code: **1 Mark**

Correct use of menu display in loop: **1 Mark**

Enroll students to the course: **2 Marks**

Check to see if student is enrolled (proper use of concatenation, split, strip functions)

                                                       2 Marks

Display formatted list of students (with average)   **2 Marks**

Search and display if student number found and message if student is not enrolled in the course: **2 Marks**