

PART I

```
nida@inspiron: ~/Desktop
nida@inspiron:~/Desktop$ ./hw2
Enter student count:60
Not in Range!!!
Enter student count:85
Not in Range!!!
Enter student count:34
61 37 45 76 66 71 100 53 12 44
29 3 60 53 73 93 64 56 11 13
36 23 82 61 83 9 40 89 7 25
12 34 28 57
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: 1
Most Successfully student:
Index 7:
Score 100:
Letter grade: A
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: 2
Most Unsuccessfully student:
Index 12:
Score 3:
Letter grade: F
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: 3
2 student got letter grade 'A'
3 student got letter grade 'B'
3 student got letter grade 'C'
5 student got letter grade 'D'
21 student got letter grade 'F'
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: 4
The average Score of 34 Student is 46
```

```

nida@inspiron: ~/Desktop
3 student got letter grade 'B'
3 student got letter grade 'C'
5 student got letter grade 'D'
21 student got letter grade 'F'
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: 4
The average Score of 34 Student is 46
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: 5
Most Successfully student:
Index 7:
Score 100:
Letter grade: A
Most Unsuccessfully student:
Index 12:
Score 3:
Letter grade: F
2 student got letter grade 'A'
3 student got letter grade 'B'
3 student got letter grade 'C'
5 student got letter grade 'D'
21 student got letter grade 'F'
The average Score of 34 Student is 46
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: 8
False Selection!!!
-----
Student Score Calculator Menu for 34 Student
1) Most Successful Student
2) Most Unsuccessful Student
3) Letter Grade Statistics
4) Calculate Average
5) Show all Data
Make Selection: -1
nida@inspiron:~/Desktop$

```

We ask user for number of students and after it we display a menu which has 5 options. If the user enters a number out of our 3-50 range for number of students we warn the user with a “Not in range!!!” message.

After we display the menu we ask user to make a selection. If the user enters a number other than 1,2,3,4 and 5 we warn the user with a “False Selection!!!” message.

When the user enters a selection number we call the related function and display the wanted results.

User continues to see the display menu and has the right to make a selection until he/she enters -1. This value ends our program.

PART II

```
nida@inspiron: ~/Desktop
nida@inspiron:~$ cd Desktop/
nida@inspiron:~/Desktop$ ./hw22
Enter the number: 9999999
The number must be between 23 and 98760!!
Enter the number: 12
The number must be between 23 and 98760!!
Enter the number: 24
The second digit is 2
The first digit is 4
nida@inspiron:~/Desktop$ 654
654: command not found
nida@inspiron:~/Desktop$ clear
nida@inspiron:~/Desktop$ ./hw22
Enter the number: 999999
The number must be between 23 and 98760!!
Enter the number: 12
The number must be between 23 and 98760!!
Enter the number: 34
The second digit is 3
The first digit is 4
nida@inspiron:~/Desktop$ ./hw22
Enter the number: 987
The third digit is 9
The second digit is 8
The first digit is 7
nida@inspiron:~/Desktop$ ./hw22
Enter the number: 6547
The fourth digit is 6
The third digit is 5
The second digit is 4
The first digit is 7
nida@inspiron:~/Desktop$ ./hw22
Enter the number: 98745
The fifth digit is 9
The fourth digit is 8
The third digit is 7
The second digit is 4
The first digit is 5
nida@inspiron:~/Desktop$ ./hw22
Enter the number: 1
The number must be between 23 and 98760!!
Enter the number: 23
The second digit is 2
The first digit is 3
nida@inspiron:~/Desktop$
```

We check how many digits out number has. As you can see if the user enters a 5 digit number the program shows and calculates 5 digits. If 4,3,2,1 as you can see the program reveals digit choices as many as the digits of the number. The number must be between 23 and 98760 so if the user enters a different number the program warns the user with “The number must be between 23 and 98760!!” message.

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