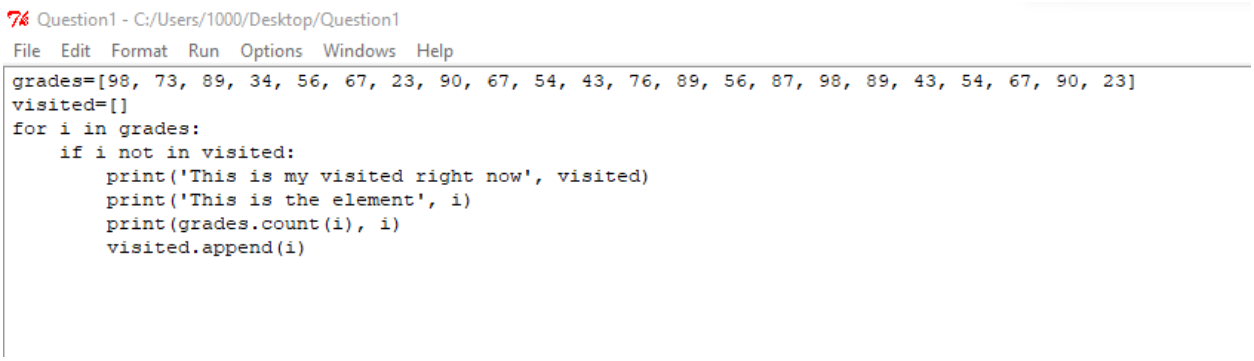
Name: FARAZ ALAM

Reg id#: 13948

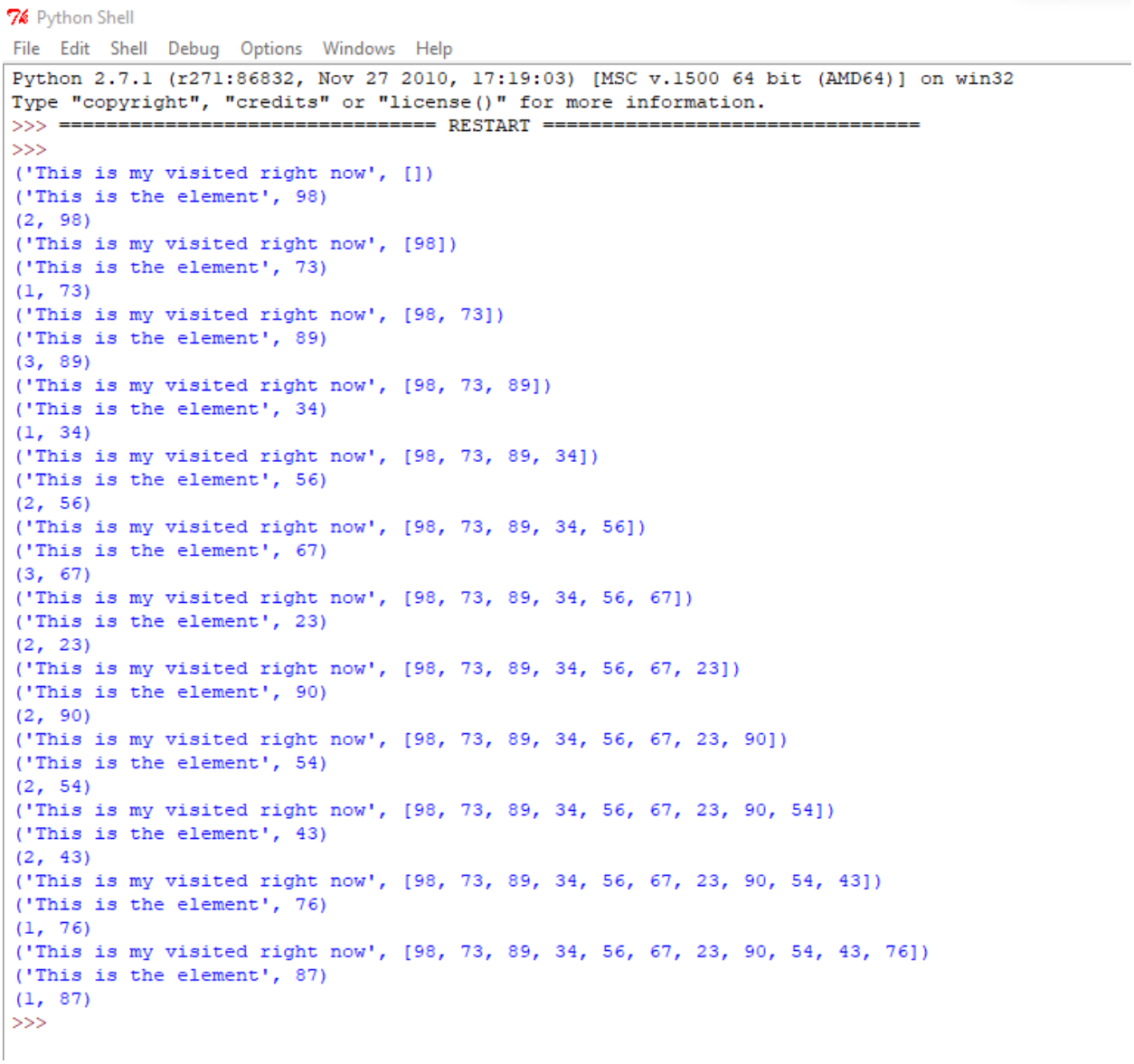
Question 01:

Below are the grades of the students who last participated in the Artificial Intelligence course.
98, 73, 89, 34, 56, 67, 23, 90, 67, 54 43, 76, 89, 56, 87, 98, 89, 43, 54, 67, 90, 23
Initialize a python list with the provided values. Next write a program which counts the number of occurrences for each of the scores. Your program should have an output similar to
98: 2
73: 1
89: 2
34: 1

Program:



Output:



Question 02:

Alter your program from 1 to use a Python dictionary to contain all the values and their individual counts. The program would have a similar output this time as well, however the results will be saved in a dictionary.

Program:

Question2 - C:/Users/1000/Desktop/Question2

File Edit Format Run Options Windows Help

```
lst=[98, 73, 89, 34, 56, 67, 23, 90, 67, 54, 43, 76, 89, 56, 87, 98, 89, 43, 54, 67, 90, 23]
lst_dict={}
for i in lst:
    if i in lst_dict:
        lst_dict[i] =+ 1
    else:
        lst_dict[i] =1
print(lst_dict)
```

Output:

Python Shell

File Edit Shell Debug Options Windows Help

```
Python 2.7.1 (r271:86832, Nov 27 2010, 17:19:03) [MSC v.1500 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> ========================== RESTART ==========================
>>>
{98: 2, 67: 3, 73: 1, 43: 2, 76: 1, 34: 1, 87: 1, 54: 2, 23: 2, 56: 2, 89: 3, 90: 2}
>>>
```

Question 03:

Again transform your program from 2 to take inputs from the user this time. You should continue to take inputs from the user for marks until he/she provides a -1. With every input provided by the user the program should also update the dictionary maintaining the count for each grade/marks attained.

Program:

Question3 - C:/Users/1000/Desktop/Question3

File Edit Format Run Options Windows Help

```
score_counts = {}
while True:
    user_input = input("Enter a score (-1 to stop): ")
    if user_input == "-1":
        break
    try:
        score = int(user_input)
    except ValueError:
        print("Invalid input. Please enter a valid score.")
        continue
    if score in score_counts:
        score_counts[score] += 1
    else:
        score_counts[score] = 1
for score, count in score_counts.items():
    print("{}: {}".format(score, count))
```

Output:

Python Shell

File Edit Shell Debug Options Windows Help

```
Python 2.7.1 (r271:86832, Nov 27 2010, 17:19:03) [MSC v.1500 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> ================================ RESTART ================================
>>>
Enter a score (-1 to stop): 1
Enter a score (-1 to stop): 5
Enter a score (-1 to stop): 8
Enter a score (-1 to stop): 9
Enter a score (-1 to stop): 1
Enter a score (-1 to stop): 5
Enter a score (-1 to stop): 8
Enter a score (-1 to stop): 7
Enter a score (-1 to stop): "-1"
8: 2
1: 2
7: 1
5: 2
9: 1
>>>
```