

ECE-203 Programming for Engineers Homework Week 7

(50 Points) Write a program that keeps a dictionary in which both keys and values are strings – names of students and their course grades. Your program should prompt the user with a menu consisting of the following options:

```
Select an option:
```

- [1] Add Student Grade
- [2] Remove Student Grade
- [3] Modify Student Grade
- [4] Display All Student Grades

```
Enter selection:
```

If the user enters option 1, as shown below, the program shall behave as shown:

```
Select an option:
```

- [1] Add Student Grade
- [2] Remove Student Grade
- [3] Modify Student Grade
- [4] Display All Student Grades

```
Enter selection: 1
```

```
--Add Student--
```

```
Enter Name: Joe
```

```
Enter Grade: B+
```

```
Student Successfully Added!
```

```
Select an option:
```

- [1] Add Student Grade
- [2] Remove Student Grade
- [3] Modify Student Grade
- [4] Display All Student Grades

```
Enter selection:
```

If the user enters option 2, the program shall behave as follows if the name of an existing student is entered:

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection: 2
```

```
--Remove Student--
```

```
Enter Name: Joe
```

```
Successfully Removed 'Joe'!
```

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection:
```

...and if the name of a non-existent student is entered:

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection: 2
```

```
--Remove Student--
```

```
Enter Name: lakjsdfkjsdf
```

```
Student 'lakjsdfkjsdf' Does Not Exist!
```

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection:
```

If the user enters option 3, the program shall behave as follows if the name of an existing student is entered:

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection: 3
```

```
--Modify Student Grade--
```

```
Enter Name: Joe
```

```
Enter Grade: C
```

```
Successfully Updated 'Joe'!
```

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection:
```

...and if the name of a non-existent student is entered:

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection: 3
```

```
--Modify Student Grade--
```

```
Enter Name: lkjlkjlkj
```

```
Student 'lkjlkjlkj' Does Not Exist!
```

```
Select an option:  
[1] Add Student Grade  
[2] Remove Student Grade  
[3] Modify Student Grade  
[4] Display All Student Grades
```

```
Enter selection:
```

The display produced by option 4 should show each student's name with their corresponding grade with the following formatting:

```
Select an option:
[1] Add Student Grade
[2] Remove Student Grade
[3] Modify Student Grade
[4] Display All Student Grades
```

```
Enter selection: 4
```

```
--Displaying All Students--
```

```
Carl: B+
```

```
Joe: C
```

```
Sarah: A
```

```
Francine: A
```

```
Select an option:
[1] Add Student Grade
[2] Remove Student Grade
[3] Modify Student Grade
[4] Display All Student Grades
```

```
Enter selection:
```

The names need not be displayed in alphabetical order.

Name your program **grades.py** and save its output as **grades.txt** Be sure to show each of the 4 options working correctly.

Submitting Your Assignment

Create a zip file with the following structure:

```
HW7_abc123.zip
├── grades.py
└── grades.txt
```

name your zip file using your Drexel user id. For example: **HW7_abc123.zip**. Upload your zip file to **learn.drexel.edu** using the assignment submission link found on the course website.

Points will be deducted for improperly packaged submissions.