Homework Assignment #1 - Part 3
CS 350: Software Design

Part 3: Modify a Survey/Test, Take a Survey/Test, Tabulate and Grade a Survey/Test-
Add to the Menu 2 options to take and to modify a survey/test. as well as to tabulate a survey/test and grade a test.

i.e.

i.e Survey Menu 2
```
1) Create a new Survey
2) Display Survey
3) Load a Survey
4) Save a Survey
5) Modify an Existing Survey
6) Take a Survey
7) Tabulate a Survey
8) Quit
```

.e. Test Menu 2
```
1) Create a new Test
2) Display a Test
3) Load a Test
4) Save a Test
5) Modify an Existing Test
6) Take a Test
7) Tabulate a Test
8) Grade a Test
9) Quit
```

Modifying an existing Survey/Test - 14%

Modify your program so that each type of question can be modified not simply deleted and replaced.

- True/False 2%
- Multiple Choice 2%
- Short Answer 2%
- Essay Answer 2%
- Rank the Choices 2%
- Matching 2%
- Multiple answers per each question – part of each section - 2%

When you select option 5 from Menu 2, prompt the user to ask which survey/test to modify

i.e

What survey do you wish to modify?
Enter existing Survey name

Next ask what question you wish to modify.

i.e.
```
What question do you wish to modify?
```
Enter existing question.

If you select multiple choice the program should first ask you if you wish to modify the prompt and then ask which choices you wish to change.

i.e.

Display the prompt for the existing question

```
Do you wish to modify the prompt?
User response entered
```

If the Answer is *Yes*
Display the prompt.

```
Enter a new prompt:
New prompt entered
```

Do you wish to modify choices?
if the Answer is Yes
Display the choices

```
Which choice do you want to modify?
A) Choice 1 B) Choice 2 C) Choice 3
Choice is Entered
New Value is Entered
```

If instead you picked to modify a test, your program should have one more prompt.

i.e.

Do you wish to modify the correct answer?
If the answer is yes, prompt:

What choice do you wish to make the new correct answer?
User enters their choice

Filling out a Survey/Test (20%)

After selecting option 6, the user is prompted to enter the name of the survey/test to take and then the questions are asked and answered

i.e.

```
Enter the name of the test you wish to take:
testname

1) What is your favorite movie?
Fletch

2) What is the most evil team in football?
A) Dallas Cowboys B) New England Patriots C) New York Giants
A
```

```
etc...
```

Aspects to consider

Multiple Multiple Choice questions:

If you are taking a multiple multiple choice question, you need to determine how many options the person is going to enter. Please make it obvious. ie.

```
2) What teamS are evil in football?
A) Dallas Cowboys B) New England Patriots C) Philadelphia Eagles
Please give two choices:

A)
B)
```

Multiple essay questions:

Some students questions whether a multiple choice question can have multiple answers. There is no problem with this. Each essay could have two paragraphs.

i.e.

```
Give two reasons why Star Wars is better than Star Trek:
A)
Star Wars has Yoda, Star Trek has Tasha Yar. Nuff said.
B)
Star Wars consistently breaks new ground with effects. Star Trek follows
suit.
```

Matching questions:

You should make your Matching questions look presentable. ie. two columns neatly formatted. This really isn't difficult. Then you can enter a letter and number combination on each line.

```
Match the team with the city
A) Yankees        1) Philadeldepia
B) Phillies       2) New York
C) Red Sox        3) Boston

A 2
B 1
C 3
```

Note: Whether you choose a test or a survey filling out a survey/test is the same. Results should be automatically saved after completing it. You don't have to worry about people starting and stopping the survey/test in the middle.

Saving the responses of a Survey/Test (15%)

After each survey or test is taken the results must be stored in a file. You may choose whatever file representation scheme you like.

NOTE: A Test can be both tabulated and graded!

Grade a test: 23%

- Each test can be graded.
- Grading is automatic.
- All questions are worth equal points.
- Essay questions cannot be graded.
- If there are 10 questions, 1 essay question and a student gets 8 of the 9 non essay questions correct, the program should output 80/90 as the actual grade.

Tabulate a Test/Survey: 23%

Some questions can be tabulated, others can simply show the responses by responders placed together.

For each test or survey tabulated.

- True/False: Output the total True responses and total False responses.
- Multiple Choice: Output the total number of responses for each choice.
- Short Answer: Output the total number of each response. Don't worry about combining spelling issues and such.
- Essay Answer: Simply list all of the answers
- Matching and Ranking: List the number of each permutation submitted and the permutation.

Example 5 True/False Questions:

Question:
```
Star Wars is the Greatest Movie Franchise.
True / False
```

Replies:
```
True
True
False
True
True
```

Tabulation:

```
Star Wars is the Greatest Movie Franchise.
True: 4
False: 1
```

Example 4 Multiple Choice Questions:

Question:
```
What is your favorite Star Wars movie?
A) I B) II C) III D) IV E) V F) VI
```

Replies:
```
D
E
D
E
```

Tabulation:

```
What is your favorite Star Wars movie?
A: 0
B: 0
C: 0
D: 2
E: 2
F: 0
```

Example 5 Short Answer Questions:

Question:
```
What is your favorite Star Wars movie?
```

Replies:
```
IV
V
V
IV
V
```

Tabulation:

```
What is your favorite Star Wars movie?
IV 2
V 3
```

Example 3 Essay Questions:

Question:
```
Why is your Star Wars your favorite movie?
```

Replies:
```
Star wars combines a mythos second to none.

Could it get any better than Darth Vader being Luke Skywalkers' father?

Lucas created a whole new world of special effects.
```

Tabulation:

```
Star wars combines a mythos second to none.

Could it get any better than Darth Vader being Luke Skywalkers' father?

Lucas created a whole new world of special effects.
```

Example 3 Ranking Questions:

Question:
```
Rank your three favoriate Star Wars movies:
```

Replies:
```
V
IV
VI

V
IV
III

V
IV
VI
```

Tabulation:

```
2)
V
IV
VI

1)
V
IV
III
```

Example 3 Matching Questions:

Question:
```
Match the team with the city
A) Yankees      1) Philadeldepia
B) Phillies     2) New York
C) Red Sox      3) Boston
```

Replies:
```
A 2
```

```
B 1
C 3

A 1
B 2
C 3

A 2
B 1
C 3
```

Tabulation:

```
2)
A 2
B 1
C 3

1)
A 1
B 2
C 3
```

PLEASE NOTE: You must include the entire project and all its files. Place these files in a Zip **NOT** Tar file. Load a single file to Drexel Learn with a ReadMe file included that explains any issues, what method you used for saving a file, and where the sample files are located. Also, your sample files should have a relative address from the binary. Do not use absolute paths as they won't work when we are grading them. **YOU MUST have file saving and loading working to submit this assignment and include a test and survey with all 6 question types that can be loaded.** Also include at least three sets of responses for each test/survey. If you are missing a type of question or multiple answers you can turn it in and you will lose the points for those types of questions.

Handling Improper Input (5%)

Your program should gracefully handle inappropriate input and NEVER crash.

The late penalty is 10 points per week it is late.