Computer Science and Programming 24-25 (Johnson)

Name:_____

Period:_____

Unit 8 Lab 2: Working with Lists

Objective:

Students will practice insertion, deletion, and updating values in lists through individual tasks and identify and correct errors in existing code that involves list operations.

For each program, follow the directions, test your code, and submit on GitHub.

Part A: Independent List Operations

Instructions:

1. Write a program in listLabPartA.py that creates a list of 10 of your favorite songs. Print the list using a FOR loop.
2. Add a new song to the end of the list using the appropriate list method. Print the updated list using a WHILE loop.
3. Sort your list. Print the updated list using a FOR loop.
4. Remove the second item in the list using the appropriate list method. Print the updated list using a WHILE loop.
5. Change the song at index 1 to "A Place Where Love Goes". Change the last song to "Happy Survival". Print the updated list without using a loop.

Part B: Loops and Lists

Instructions:

1. Write a program in listLabPartB.py that creates a list of the odd numbers between 20 and 30. Print the list.
2. Move the second number to the end of the list and shift every other number down the list. Print the updated list.
3. Use a loop to insert every 3rd even number between 50 and 80 (54, 60, 66, ...) into the list. These new numbers should be inserted between the odd numbers so that the values alternate between even and odd numbers. Print the updated list.

Part C: Debugging List Operations

Instructions:

1. Examine and test the code in listLabPartC.py. The code is intended to manage a list of student scores but contains several errors.
2. Identify and explain the errors below:

   _____

   _____

3. Correct the errors to ensure the program functions as expected.

Expected Output:

```
Scores after adding a new score: [85, 90, 78, 92, 88, 95]
Scores after updating the second score: [85, 80, 78, 92, 88, 95]
Scores after deleting the 5th score: [85, 80, 78, 92, 95]
```

Rubric for Lists Lab (Total: 15 Points)

Each step for each task is worth 1 point.

Criteria	Score					
Part A Task Completion (5pts)						
Part B Task Completion (3pts)						
Part C Task Completion (3pts)		4 Points	3 Points	2 Points	1 Point	0 Points
Code Functionality		Code runs without errors as expected	Code runs with errors; meets goal	Code runs with errors; Doesn't meet goal.	Code does not run.	No code submitted.
Total Sore	/15					