

CS 150 Lab 6

Loops Loops Loops

The main objective of today's lab is to make sure you are comfortable with while loops and if statements. Use the debugger if your program is not producing the correct results.

Be sure your output looks exactly like the specified output.

Be sure to submit the completed project to CS150-02 Lab when you are done.

Show the instructor or TA your solution to each problem before submitting.

Lab 6.1

The conversion of kilometers per hour (KPH) to miles per hour (MPH) is given by the formula $\text{mph} = \text{kph} * 0.6214$. Write a C++ program in a project **6_1_Speed** that produces a table of values below given input from the user. The speeds are to be shown in increments of 10 kph.

```
*** Speed Table ***
```

```
Enter starting KPH value: 60
```

```
Enter ending KPH value: 100
```

KPH	MPH
---	---
60.0	37.3
70.0	43.5
...	

Lab 6.2

Write a C++ program in a project **6_2_Scores** to allow the user the ability to enter an unknown number of quiz scores. Scores entered will be in the range of 0 to 100 inclusive. After the user enters a negative quiz score, display to the user:

- average quiz score
- average quiz score after dropping the lowest score

Sample Input/Output

```
/// Quiz Grader ///
```

```
Enter quiz score: 15  
Enter quiz score: 16  
Enter quiz score: 17  
Enter quiz score: 16  
Enter quiz score: 15  
Enter quiz score: 0  
Enter quiz score: 19  
Enter quiz score: 20  
Enter quiz score: 14  
Enter quiz score: 15  
Enter quiz score: -100
```

```
Results
```

```
-----
```

```
Average: 14.70
```

```
Average (Drop lowest (0)): 16.33
```

Note1: Your program is to compile without any errors or warnings.

Note2: Do not use any ***magic constants*** in your program. Define your constants before defining the rest of your program's variables.

Once your projects are complete, place your solution **PUNetIDLabs** into the **CS150-02 Drop** folder on grace. Your solution is to have all previous projects completely working and correct.