**CSE 212 – Programming with Data Structures**

**W03 Prove – Response Document**

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**Question 1: From Part 1, describe what the Mystery Stack 1 code does and how the use of a stack helps in the implementation.**

**Whatever is inputted in run(text) is pushed on the stack and then taken off through pop()!**

**Question 2: From Part 1, what are the three outputs from the Mystery Stack 1 code for the following three different inputs?**

* **Racecar**

**Racecar would return racecar**

* **Stressed**

**Stressed would return desserts**

* **a nut for a jar of tuna**

**Anut fo raj a rof tun a**

**Question 3: From Part 2, describe what the Mystery Stack 2 code does and how the use of a stack helps in the implementation.**

**It starts off by going through a string that is separated at into sections or parts at each space. This separates the numbers in the one long string text line into different numbers. Then, it checks to see if the number that is a string can be converted into a float, then if it does it will push it onto the stack. Once an operator hits (is read) in the one long string line/text, then it will go to an if this then that statement where it gathers the top two values of the stack and times, divides, minuses, or adds them. Then, if something goes wrong it will throw an Invalid Case 3 exception.**

**Question 4: From Part 2, answer the following regarding what the Mystery Stack 2 code does:**

* **What will the result be if the input parameter is: 5 3 7 + \***
  + **50**
* **What will the result be if the input parameter is: 6 2 + 5 3 - /**
  + **4**
* **What input would result in the display of “Invalid Case 1!”**
  + **(“1”)**
* **What input would result in the display of “Invalid Case 2!”**
  + **(“ 1 0 /”)**
* **What input would result in the display of “Invalid Case 3!”**
  + **(“&”)**
* **What input would result in the display of “Invalid Case 4!”**
  + **(“. L OO L”)**