Program Design Document Spring, 2017

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CS155 – Section 01

Project #3 – Leo’s Pizza Parlor

Due: Tuesday, February 14, 2017

**Program Requirements:**

This program will allow a user to select a choice of pizza; it will then allow the user to enter a number of beverages and a number of salads and then calculate the total for each product and then output the grand total.

**Program Inputs:**

Pizza selection (integer)

Beverage count (integer)

Salad count (integer)

The integer values must be non-negative.

Pizza selection value must be between 1 and 3.

**Program Outputs:**

Pizza Name (string), beverage count (integer), salad count (integer), pizza total (double), salad total (double), beverage total (double), grand total (double).

**Solution Overview:**

The program will begin by having the user input an integer between 1 and 3 to select a pizza.

The user will then input an integer that is greater than or equal to zero to select total beverages.

The user will then input an integer that is greater than or equal to zero to select total salads.

Calculate totals,

Beverage total = beverage price \* beverage count

Salad total = salad price \* salad count

Grand total = salad total + beverage total + pizza price

Once they are calculated will output the pizza selection and total, beverage count and beverage total, the salad count and salad total, and finally the grand total; each of these will be on a separate line with the totals lined up vertically by their decimal number.

**Algorithm Flowchart:**



**Test Plan:**

Three test cases will be run:

1. Pizza 2, Beverages 3, Salads 0
2. Pizza 1, Beverages 25, Salads 100
3. Pizza 3, Beverages 0, Salads 0
4. Pizza 0, Beverages 5, Salads 5
5. Pizza 4, Beverages 5, Salads 5
6. Pizza 2, Beverages -5, Salads 5
7. Pizza 2, Beverages 0, Salads -5