**CS299 (Yang) Project #3 (50 points)**

# Practice: functions

Problem: Pizza Ordering

|  |  |
| --- | --- |
| Pizza Size (inches) | Cost |
| 10” | $10.99 |
| 12” | $12.99 |
| 14” | $14.99 |
| 16” | $16.99 |

Problem Specification:

(1) Write a function getSize() that prompts user as follows (note: you don’t have to use a table) and asks the user to enter the size choice. The function will return the size chosen.

If wrong size entered, an error message will be displayed and the user will be asked to reenter. The user has three chances to enter the right choice. After the 3rd time, the function will display a “very sorry” message and returns -1.

(2) Write a function getCrust() that prompts user to enter the crust choice. There are three types of crust available, hand-tossed, thin-crust, and deep-dish with thin-crust charging $1 extra, deep-dish charging $2 extra. No extra charge for hand-tossed. If the user enters a wrong crust type or choose not to enter, hand-tossed is the default. This function will return the extra charge.

(3) Write a function *applyDiscount()* that ask users to enter coupon code if any. Coupon codes are case insensitive and possible coupon codes are as follows. If wrong coupon code entered or no coupon code entered, the discount is 0%. The function will return the discount (for example, it returns 0.1 for 10% off.)

|  |  |
| --- | --- |
| Coupon code | Discount |
| Holiday10 | 10% off |
| Winter20 | 20% off |
| VIPmax | 25% off |

(4) Write a function *cost(size, extra, discount)* that takes three parameters (pizza size, extra charge, and discount) and returns the total cost of the pizza (assume no sales tax needed.)

(5) Write a *main()* function (or just codes) that calls the *getSize*, *getCrust,* *applyDiscount* functionsto get user’s order. It displays user’s order choice, calls the *cost* function to get the final cost. Finally it displays the total cost. Make sure the output for the dollar amount formatted properly.

Testing Requirements:

Test the program with the following test data:

|  |  |
| --- | --- |
| Test 1: | Enter size 15, 17, 11 |
| Test 2: | Enter size 17, 16 |
|  | Enter a wrong crust |
|  | Enter Winter20 coupon code |
| Test 3: | Enter size 12 |
|  | Choose deep-dish crust |
|  | Enter no coupon code |
| Test 4: | Enter size 14, thin crust, VIPmax coupon code |
| Additional tests | At least two more cases of your own choice |

Submission requirement:

1. Copy and paste the output of all your test runs to the end of your program and comment out the output
2. Upload your Python program (with output added) to blackboard along the Project 3 link.