***Nature***

After opening an Italian restaurant, there is no way to take orders from the customers. This is a problem because the restaurant needs a means to take the customers orders otherwise there will be no payment system in place. In order to help the restaurant succeed, I have written a program to take orders for a single customer and output their receipt. This receipt can be used be the chefs and the cashier to determine what food to cook and how much money to charge the customer.

***Method***

First, the customer is asked for the type of meal they are eating. They must respond with the associated codes provided to them. If they fail to do so, the customer will be faced with an error message and left hungry. They are then asked, in the same manner, to provide their choice of appetizer, entrée, dessert, and drink with options to exclude each of these if they desire to do so. After they have completed this process, they are given a printed receipt to which they must pay to receive their food.

***Steps***

First, I wrote out all of the named constants that I would need in the execution section of the program. This included constants such as the choice codes for every input and the prices of each item. Next, I write the code needed to input all of the users’ choices using these named constant codes. When an idiot types in a code that they are not supposed to, they are greeted with an error message describing what they did wrong. Next, I wrote the code to calculate the subtotal, tax, and tip that the customer owes using some arithmetic operators. Finally, I wrote the code to print the receipt out onto the screen with a series of if statements.

***Issues***

I had trouble formatting the receipt correctly. The number of spaces and tabs never lined up evenly. To fix this, I counted the number of spaces that an item name would take up and used math to calculate how many spaces I would need to put to the right of the name to make the prices line up evenly on the right. This was the most tedious part of the project, and it took quite a bit of effort. In the end I was able to get my receipt to look like the example receipt.

***Concepts***

I learned how to format a receipt properly through the terminal and exit a program in C. The most important thing I learned would be how to efficiently use if statements to get my program to do what I desire.

***References***

None