

# Problem of the Week #3

C. Hayson, L. Khanh

October 27, 2023

## Restaurant order

You are a manager for a small Italian restaurant and need to take in orders from customers. However, you are not really good at math, and under the pressure of working, you can't write down the item and calculate the bill fast enough, but the customers are growing impatient!!! You decide to write a program to calculate the bill for you based on the item ordered. The food that your restaurant makes and their price (excluding 15% tax) are in the table below:

Food	Price
Carbonara	\$18.99
Spaghetti	\$17.49
Pizza	\$24.99
Gnocchi	\$14.99
Risotto	\$22.49
Lasagna	\$49.99
Tiramisu	\$11.99
Gelato	\$7.99

- (a) **Beginner** Using a loop and a dictionary, ask the user for all of their order by inputting the name of the food as written in the menu and inputting a 0 to indicate the end of the order. Output their total bill afterward, and don't forget the 15% tax. If the customer inputs an item that your restaurant doesn't make, output an error message but do not terminate the program, the customer wouldn't like having to input the whole order again, would they?

- (b) **Intermediate** Your restaurant is expanding and you want to add some drink to the menu; juice, soda, beer, wine, and the like. But you are a law-abiding person, you can't sell alcohol to minors! Add a check for age before each order (you trust your customer will not lie about their age) (if the age is strictly less than 19, than block the purchase) and if a minor tries to order alcohol, display a warning message. The new drink to be added is as follows:

Drink	Price
Water	\$1.99
Juice	\$3.99
Soda	\$2.49
Beer	\$4.99
Red Wine	\$11.99
White Wine	\$9.99

- (c) **Advanced** Your restaurant has expanded to a dizzying size, and now you can't even remember the order as they come in anymore, there are just too many of them! Add a function in your program to print out the customer's order.