# REQUIREMENTS DOCUMENT

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| **Date Submitted:** | Due Date of Assignment  **8/6/2019** |
| **Application Title:** | Name of Program  **Hickman\_finalProject.java** |
| **Purpose:** | This project will create an order entry system for the user to choose one of 5 items to order at a restaurant. The menu should have the name of the item as well as the price. When orders, the user should be able to continue to input as many as up to 10 items. The program should enter all items chosen into an array which will be printed out for the user to view, with prices, a subtotal, and a final total given with sales tax. |
| **Program Procedures:** | 1. **Display a menu for the user to view. This menu should have a list of 5 food items and the price of each of those items.** 2. **Allow the user to input which items they would like to purchase. They can choose up to 10 items in total, or fewer if they so choose.** 3. **The program will keep the chosen items in an array so that, when the user is finished, they can view the items they have chosen and their respective prices.** 4. **The program will print that information out for the user, along with a subtotal (the total without tax) and the final total (with tax).** |
| **Algorithms, Processing, and Conditions:** | 1. **Create orderEntry class. Declare userOrder, subtotal, and overallTotal variables. Also set the tax rate as a constant at .11.** 2. **Create the constructor, initializing the variables, and adding the calculations for the overallTotal. Add setters and getters for the userOrder and the subtotal.** 3. **Make a method to print out the menu, which has a list of 5 treats, along with their prices.** 4. **In the main program, create new scanner keyboard.** 5. **Initialize the variables, including an arrayList to hold the users receipt, or the list of items and prices they have ordered.** 6. **Print the menu for them to view.** 7. **Use a for loop to cycle through the users menu options up to 10 times and send the inputs to userOrder.** 8. **Nest if/else statements within the for loop. If userOrder is = to one of the menu items, add that menu item and its price to the orderReceipt arrayList.** 9. **For each item chosen and placed into the list, add the subtotal to itself, plus the price of the treat chosen. This will accumulate the total price (without tax) of the order.** 10. **When the user presses the number 9, the loop will end their order. They can also press 0 or any number greater than 5. Doing this will set the loop iterations to 10, which automatically ends the loop.** 11. **Calculate the overallTotal. This will be the subtotal \* 0.11 (the tax) + the subtotal.** 12. **Add a string containing the subtotal, tax, and overall total to the arrayList which will be printed out.** 13. **Use a print statement to display a message thanking the user for their order once they are finished.** 14. **Use a for loop and the .size method to iterate through the number of items in the arrayList, allowing .get to print out each item in the arrayList for the user to view. This will display the users entire order neatly, with items and prices, and the subtotal, tax, and overall total.** |
| **Notes and Restrictions:** | The final total should include an 11% sales tax. |
| **Comments:** | Proper programming procedures must be adhered to at all times. |