

## CS 100 Project Proposal

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<b>Project Name:</b>	<b>PDC Billing System</b>
<p style="text-align: center;"><b>Deliverables:</b></p> <ol style="list-style-type: none"><li>1. Code prototype that displays the menu of PDC food items, including beverages and desserts) and their prices.</li><li>2. Provide a prototype allowing the user to select exactly what items they need and the exact quantity they need, with the total amount at each step, so the user can budget accordingly.</li><li>3. Create a system that updates everything in order and keeps track of everything selected.</li><li>4. A prototype that allows payment via cash and valid cards.</li><li>5. The program exits after a successful payment or upon entering a sentinel value.</li></ol>	

### **How to approach this problem:**

1. The program starts with a splash screen which clears after a few seconds, or it starts with a header decoration and a title.
2. User will be provided with a list of options (including beverages and desserts) stored in 2D arrays with their corresponding price.
3. The user will enter the row and/or column number of the item they want, and the program will add it to the user's quantity list (another 2D array), and price if its available, and decrement it from the options list, otherwise, the item will be crossed out in the display and an error message will be displayed.
4. After selection of items, the system will proceed to the payment section, where the user will be asked to input their preferred payment method.
5. The program will validate credit/debit card numbers and tell if the card will suffice for the payment. For cash, the user will input the amount instead of the card number, and the system will output the change due.