```
    3. Orange
    Enter the number of the product you want to buy (-1 to exit): 1
    1. Add to cart
    2. Remove from cart
    3. View cart
    4. Exit
    Enter the number of the command you want to execute: 1
    Enter the quantity you want to add: 50
    50 Apple added to cart.
    1. Apple
    2. Banana
```

Project Report: Java Shopping Cart Application

`Group 3` : *Team Project (Lwaano, Linda Malata, Brenda Mambwe, Didiana Kalobwe, Abel Somili, Brandon Ng'andu)*

Introduction

This project is a simple command-line shopping cart application written in Java. It uses the HashMap data structure to store the products and the corresponding prices, and also to store the products and their quantities in the shopping cart. The application has the following features:

- Display the available products and their prices

- Add products to the cart

- Remove products from the cart

- View the contents of the cart

- Checkout the cart by displaying the total price and exiting the application

Implementation

Product and Cart Storage

Two HashMaps are used to store the product details and cart items. The `products` HashMap stores the product numbers and their corresponding names, while the `cart` HashMap stores the product numbers and the quantities added to the cart by the user.

User Interface

The application has a simple command-line interface. The user is first presented with a list of available products and is prompted to enter the number of the product they want to buy. After selecting a product, the user is presented with a list of commands to execute, which include adding the product to the cart, removing it from the cart, viewing the cart contents, or exiting the application.

If the user chooses to add a product to the cart, they are prompted to enter the quantity they want to add. If the product is already in the cart, the quantity is added to the existing quantity. If the user chooses to remove a product from the cart, they are prompted to enter the quantity they want to remove. If the quantity entered is greater than or equal to the current quantity in the cart, the product is removed from the cart.

If the user chooses to view the cart contents, they are presented with a list of the products in the cart, their quantities, and the total price. They are also presented with a list of commands to execute, which include continuing shopping, checking out the cart, or exiting the application.

Price Calculation

The `getPrice()` method is used to retrieve the price of a product based on its product number. The prices are hard-coded in the method using a switch statement. The `formatPrice()` method is used to format the prices to two decimal places for display purposes

Conclusion

The Shopping Cart Application is a simple yet useful tool for managing a customer's shopping experience. The use of HashMaps makes it easy to add, remove and view the products in the cart. The user interface is simple and easy to navigate, and the price calculation is done automatically. With further development, this application could be expanded to support additional features such as the ability to store user information or integrate with a payment gateway for online transactions.