Activity 7 - Solution

Let's consider a simple business example of a coffee shop that wants to calculate the total revenue for a day based on the number of customers and the items they purchased.

Use single-dimensional arrays to keep track of the number of coffees and pastries purchased by each customer.

Calculate the subtotal and total revenue.

```
import java.util.Scanner;
class main
{
        public static void main(String[] args)
        {
            Scanner input = new Scanner(System.in);
            // Get the number of customers
            System.out.print("Enter the number of customers: ");
            int numCustomers = input.nextInt();

            // Create arrays - The size of these arrays is determined by the
numCustomers input.
            int[] numCoffees = new int[numCustomers];
            int[] numPastries = new int[numCustomers];

            double totalRevenue = 0.00;

            // Process each customer's order
            for (int i = 0; i < numCustomers; i++)
            {
                System.out.println("\nCustomer " + (i + 1) + ":");

                // Get the number of coffees and pastries purchased by each customer and
store in arrays
                System.out.print("Enter the number of coffees: ");
                numCoffees[i] = input.nextInt();
                System.out.print("Enter the number of pastries: ");
                numPastries[i] = input.nextInt();

                // Calculate the subtotal for this customer
                double subtotal = (numCoffees[i] * 2.5) + (numPastries[i] * 1.5);
System.out.println("Subtotal for Customer " + (i + 1) + ": £" + subtotal);

                // Add the subtotal to the total revenue
                totalRevenue += subtotal;
            }

            // Print the total revenue for the day
```

```
            System.out.println("\nTotal Revenue for the Day: £" + totalRevenue);
        }
}
```