**User Manual**

**Summary of the program:**

The programs are designed to price a basket of goods considering special offers and perform the Unit testing. It is driven by unit tests. The goods available for purchase and their normal prices are Soup (£0.65 per tin), Bread (£0.80 per loaf), Milk (£1.30 per bottle), and Apples (£1.00 per bag). The current special offers are a 10% discount on Apples and a half-price loaf of bread when purchasing 2 tins of soup.

The program takes a list of items in the basket as command line input in the format "Price Basket item1 item2 item3 ...". It then calculates and outputs the subtotal, special offer discounts, and the final price.

**If special offers are applicable, the output format is as follows:**

Subtotal: £3.10

Apples 10% off: 10p

Total price: £3.00

**If no special offers are available, the output format is:**

Subtotal: £1.30

(No offers available)

Total price: £1.30

**Steps to implement the program**

**Step 1:** Install JDK

Open JDK website (<https://adoptopenjdk.net/>)to download the JDK installer for your operating system.

**Step 2:** Install Scala

Open Scala website(<https://www.scala-lang.org/download/>) and download the latest Scala distribution for your operating system.

**Step 3:** Set up environment variables:

Set the JAVA\_HOME environment variable to point to the JDK installation directory. This can usually be done through the system's environment variables settings.(in control pannel)

Add the Scala installation directory to the system's PATH environment variable. This allows weto run Scala commands from any location in the command line.

**Step 4:** Go to Github, In the public repository (<https://github.com/Manovadhani/PriceBasket.git>) the file ' PriceBasket.scala.txt' is available.clone the file into your local machine. or copy the attached file into the system.



**Step 5:** To execute this Scala program,

1. Save the code in a file with a ".scala" extension (e.g., "PriceBasket.scala").
2. Open a command prompt or terminal.
3. Navigate to the directory where the Scala file is saved using the cd command. (eg., consider the code is stored in Desktop/PriceBasket folder. type cd Desktop/PriceBasket )
4. Type Scala, wewill get **scala**> ( if the scala is installed properly)
5. Compile the Scala program using the scalac command followed by the file name. For example:

**scala**> scalac PriceBasket.scala

1. Run the program by providing a list of items as command-line arguments. For example:

**scala>**scala PriceBasket Apples Milk Bread

We can replace "Apples", "Milk", and "Bread" with the desired items in the basket.

The program will calculate the subtotal, apply any applicable special offers, and display the results on the console.

**Unit test using ScalaTest for the BasketPricer code:**

**Follow Step 4 & Step 5**( replace the code name as BasketPricer)

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In this test case, we create an instance of BasketPricer and pass a sample basket of items. We then capture the output of the calculatePrice method using Console.withOut and assert that the expected output is generated.

Make sure that the ScalaTest dependency added to your project's build file while scala installation, run the tests same way as the code run.

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