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10. **Introduction**

The PriceBasket program is a command line-based program to calculate the total price of a basket of goods, considering any special offers. It accepts a list of input and provides the subtotal special offer discounts and the final price as output. This documentation provides instructions on how to install, use and test the program.

1. **Installation**

First, we need to install and set up the development environment with necessary dependencies.

**Prerequisites:**

* IntelliJ IDE
* Scala 2.13.12
* Java Development Kit (JDK) 1.8 or Later
* Download Scala and SBT plugins.
* Operating System- Any

Here are some screenshots of the installations.

A screenshot of a computer

Description automatically generated

Fig1. IntelliJ Installation

A screenshot of a computer

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Fig2. Scala plugin Installation

A screenshot of a computer program

Description automatically generated

Fig3. Project

1. **Project steps**

Here the project has been created by following below steps:

* Once installing IntelliJ IDE, the first step is to add or download plugins for Scala and SBT.
* For the same, click on settings -> plugin -> search for Scala and SBT plugins. Download JDK 1.8 and set environment variables as well.
* To create a new project, click on -> New project-> specify name of the project and select Scala. Also, there we need to add JDK path and build system as SBT.
* Furthermore, here I have created a package named Task. For that just go to src -> main

-> Scala and right click on it to create a new package.

* Now, for creating a new Scala class right click on that package i.e., Task -> new Scala class named **PriceBasket**.
* Also, for creating unit test file right click on ‘Test’ folder in IntelliJ -> Scala-> new Scala class named **PriceBasketSpec**. The test folder holds all unit test files.

1. **Program execution steps**

* To run the PriceBasket.scala file, first need to provide correct command-line arguments. For example, Apples Milk Bread or Soup Soup Bread. Make sure to add space between the arguments.
* For the above step, click on our Scala file i.e., ‘**PriceBasket’** on top-middle and then go to the Edit Configuration option where you can pass those above inputs. Also, there we need to add JDK path and select Module which is nothing but Project name i.e., **‘shopping\_basket’**.
* After finishing the above steps click on Apply and ok. Now we are ready to click the run option. In this way we can execute the Scala program.
* For executing unit test file, we need to click on Run option, and we can observe the output on IntelliJ command-line.

1. **Output/ Results**

The below figure shows the output for the program. Here we passed **Apples Milk Bread** as input. The program is calculating the final price for items mentioned including this week’s apples discount.

A computer screen shot of a program

Description automatically generated

Fig4. Result

A computer screen shot of a program

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Fig5. Code for ‘PriceBasket’

A computer screen shot of a program

Description automatically generated

Fig6. Unit test code

1. **Examples**

The below figures are the examples with different inputs.

A screenshot of a computer program

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Fig7. Inputs as Apples Milk Bread Soup Soup

A computer screen shot of a program

Description automatically generated

Fig8. Inputs as Two Soups-Bread

A computer screen shot of a program

Description automatically generated

Fig9. Input as Apples Milk Soup

**A screenshot of a computer program

Description automatically generated**

Fig10. Item Not Available

A computer screen shot of a program

Description automatically generated

Fig11. Empty Basket

1. **Unit Test Cases**

Unit tests have been included to ensure the correctness and reliability of the PriceBasket program by creating unit test file i.e., ‘PriceBasketSpec.scala’ file. To run unit tests, use the run option in IntelliJ IDE. The below figure shows us the program had successfully passed all test cases.

A screenshot of a computer program

Description automatically generated

Fig12. Unit tests

1. **Troubleshooting**

If there are any errors or issues encountered, then make sure to check and pass correct command line arguments.

1. **Reference**

* <https://www.tutorialspoint.com/scala/scala_pattern_matching.htm>
* <https://github.com/minalmahajan3/task_price_basket.git>

1. **Appendix**
2. You can follow the readme file for executing the project step by step.