Currency converter

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CURRENCY CONVERTER

ABSTRACT

There are around 200+ different currencies used in different countries around the world. Conversion from one currency to another is a very important endeavor especially when it comes to marketing and travel. Currency conversion system is implemented to reduce human power to automatically recognize the amount monetary value of currency and convert it into the other currencies without human supervision. Currently, human is needed to recognize the amount of the currency and to convert it manually. This is stressful especially to people who aren't so smart in calculations. Currency converter system is implemented to reduce human power to convert it into the other currency without human.

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1. INTRODUCTION

- There are around 200+ different currencies used in different countries around the world. Conversion from one currency to another is a very important endeavor especially when it comes to marketing and travel
- Knowing the other currency values corresponds with the currency you give so much more information than knowing other currency values.
- Currency conversion is a process that involves multiplication or division by a numerical factor.
- With the global flow of Money that occurs these days, it is very important for everyone to learn these different currency values.
- Humans need to recognize the amount of the currency and to convert it manually. This is stressful especially to people who aren't so smart in calculations.
- A currency conversion calculator is a tool that renders a helping hand by doing currency conversions in a few seconds.

2. LITERATURE SURVEY

- Currency as a monetary system based on the exchange of symbolic units, is about 4,000 years old, originating in Mesopotamia.
- Coins specifically were in use from about 600-700 BCE. They seem to have started around the same time in Anatolia (modern day Turkey), India and China, and spread very rapidly throughout the intervening empires during the 6th and 5th centuries BCE.
- Later on, currency became powerful as a medium of exchange for goods.
- Every country has its own currency.
- The demand and supply of its currency in the foreign currency markets determines the exchange rates. It changes day to day.
- Remembering such a big number of currencies and converting them into other currencies manually is a tedious task
- Hence a project that makes all these conversions immediately available will be a welcoming choice.

3. SYSTEM REQUIREMENTS

3.1 SOFTWARE REQUIREMENTS

Operating System **:** Windows 10 , Linux. Mac OS X, Unix

Programming Language **:** Java1.8

3.2 HARDWARE REQUIREMENTS

Hardware **:** Pentium Based System with a minimum of P4

RAM **:** 1GB(minimum)

Pentium 4

Pentium 4 is the intel processor that was released in the November 2000.The P4 processor has a viable clock speed that now exceeds 2GHz – as compared to the 1GHz of the Pentium3.

RAM

Random Access Memory is a form of computer storage that stores data and machine code currently being used. A RAM device allows data item to be read or written in almost the same amount of time irrespective of the physical location of data inside the memory.

4. PROJECT REQUIREMENTS

4.1 Functional Requirements

Sequence of Operations

1. should run all arithmetic operations.
2. will convert the input currency to required currency
3. should know the all currency values.Image is imported by providing the location of the image.

4.2 Non Functional Requirements

Performance Requirements

1. numerical keyboard is required
2. application is useful in internal marketing.

5. DESIGN

5.1 High Level Requirements

Converter will be opened from that view Currency list. If there is a we enter valid currency it take it as input otherwise it shows invalid currency

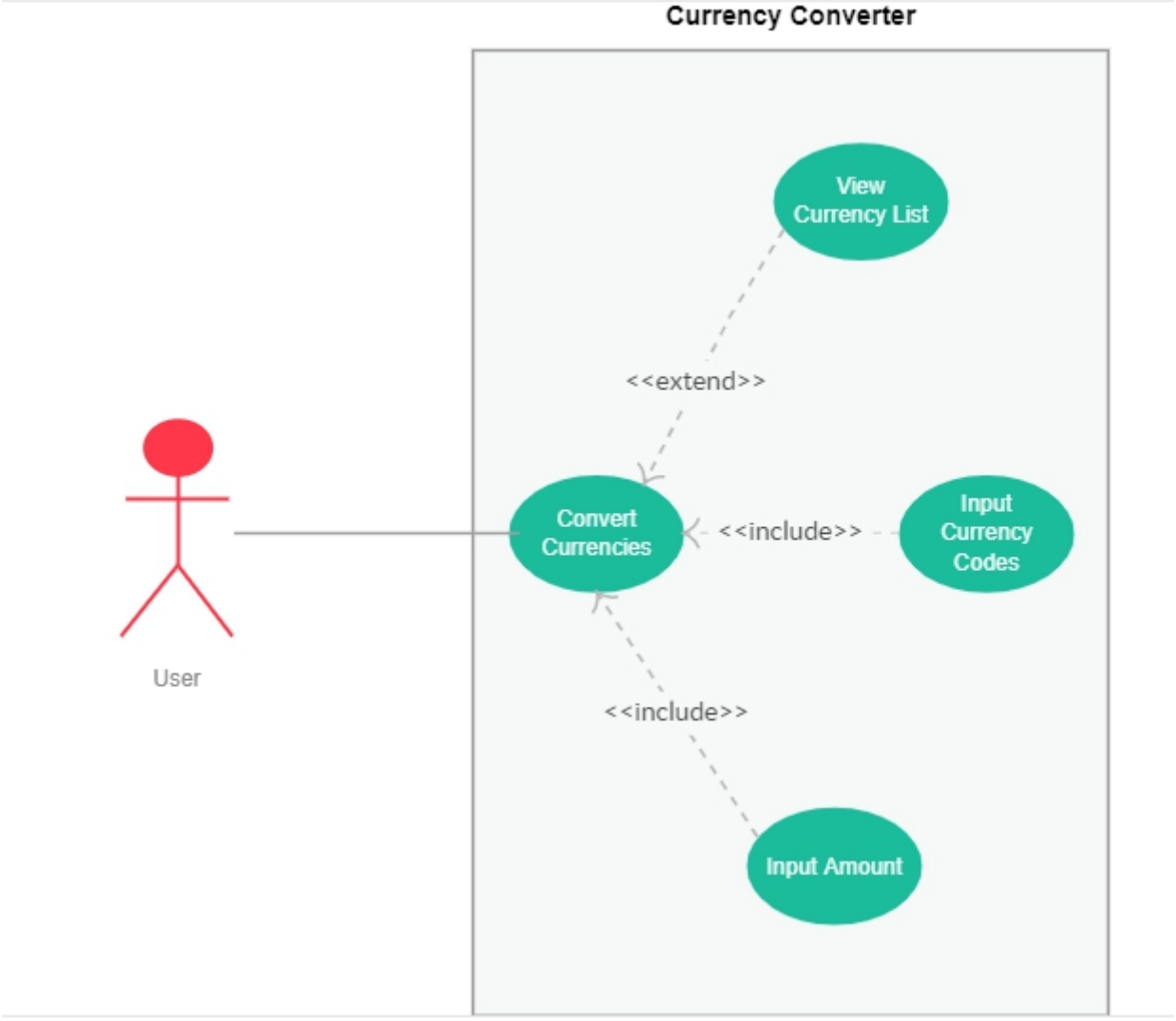


Figure 5.1: Usecase Diagram

5.2 Low Level Requirements

W Converter will take what type of currency need to converted and take how much amount need to converted then it will convert that currency into all remaining available currencies and give that as output .

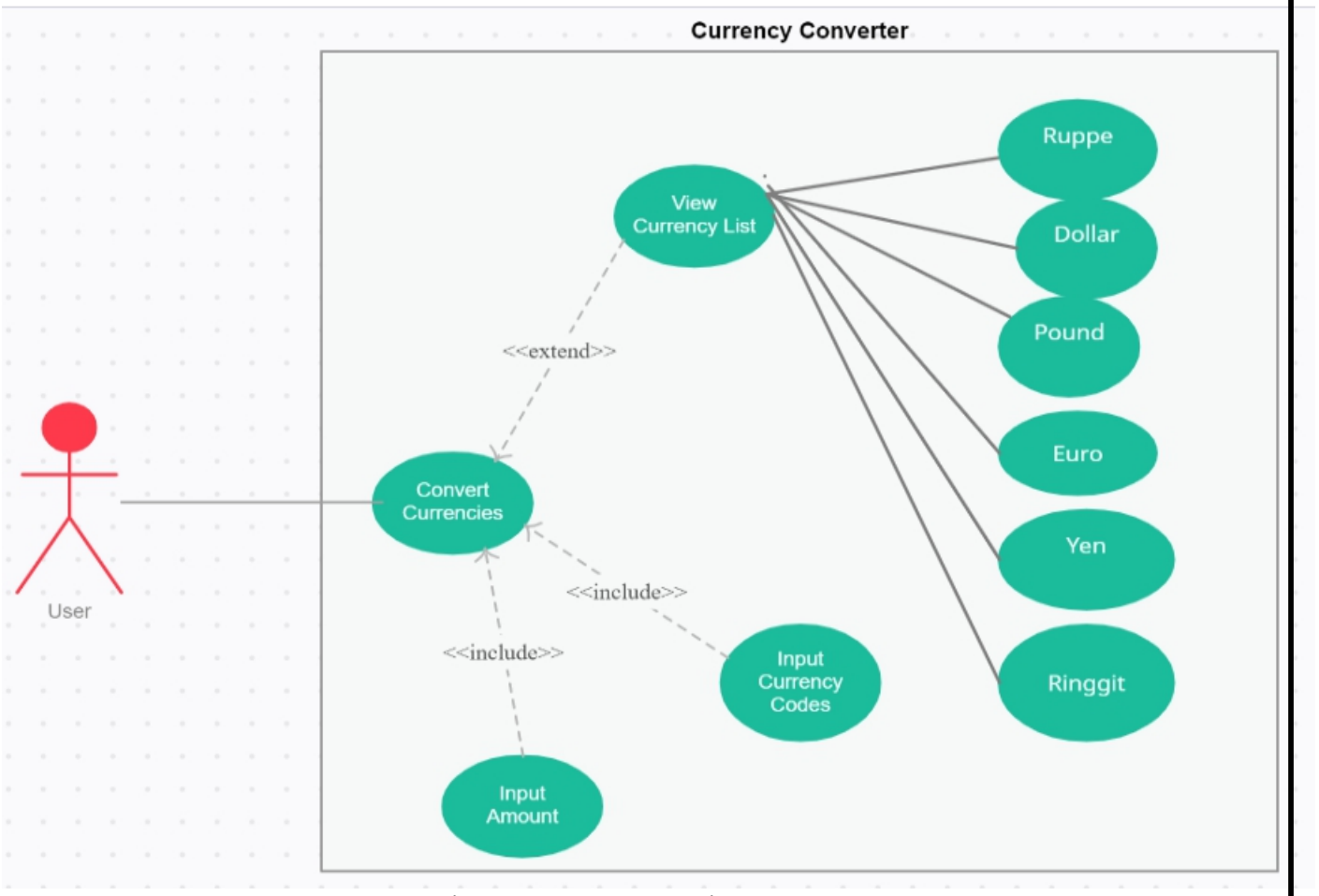


Figure 5.2: Use case Diagram

6. IMPLEMENTATION

6.1 CODE SNIPPET

```
import java.util.*;
import java.text.DecimalFormat;

   public class Currency {

      public static void main(String[] args) {

         double amount = 0, dollar, pound, code, euro, yen, ringgit, rupee;

         DecimalFormat f = new DecimalFormat("##.##");

         Scanner sc = new Scanner(System.in);

         System.out.println("hi, Welcome to the Currency Converter!");

         System.out.println("which currency You want to Convert ? ");

         System.out.println("1:Ruppe \t2:Dollar \t3:Pound \n4:Euro \t5:Yen \t6:Ringgit ");
         code = sc.nextInt();
         if(code<=6) {
            System.out.println("How much Money you want to convert ?");
            amount = sc.nextFloat();
         }
         else {
            System.out.println("invalid currency option");
         }

         // For amounts Conversion
         if (code == 1) {

            dollar = amount / 70;
            System.out.println("Your " + amount + " Rupee is : " + f.format(dollar) + " Dollar");

            pound = amount / 88;
            System.out.println("Your " + amount + " Rupee is : " + f.format(pound) + " Pound");

            euro = amount / 80;
            System.out.println("Your " + amount + " Rupee is : " + f.format(euro) + " Euro");

            yen = amount / 0.63;
            System.out.println("Your " + amount + " Rupee is : " + f.format(yen) + " Yen");

            ringgit = amount / 16;
            System.out.println("Your " + amount + " Rupee is : " + f.format(ringgit) + " ringgit");
```

```
} else if (code == 2) {
    // For Dollar Conversion

    rupee = amount * 70;
    System.out.println("Your " + amount + " Dollar is : " + f.format(rupee) + " Ruppes");

    pound = amount * 0.78;
    System.out.println("Your " + amount + " Dollar is : " + f.format(pound) + " Pound");

    euro = amount * 0.87;
    System.out.println("Your " + amount + " Dollar is : " + f.format(euro) + " Euro");

    yen = amount * 111.087;
    System.out.println("Your " + amount + " Dollar is : " + f.format(yen) + " Yen");

    ringgit = amount * 4.17;
    System.out.println("Your " + amount + " Dollar is : " + f.format(ringgit) + " ringgit");
} else if (code == 3) {
    // For Pound Conversion

    rupee = amount * 88;
    System.out.println("Your " + amount + " pound is : " + f.format(rupee) + " Ruppes");

    dollar = amount * 1.26;
    System.out.println("Your " + amount + " pound is : " + f.format(dollar) + " Dollar");

    euro = amount * 1.10;
    System.out.println("Your " + amount + " pound is : " + f.format(euro) + " Euro");

    yen = amount * 140.93;
    System.out.println("Your " + amount + " pound is : " + f.format(yen) + " Yen");

    ringgit = amount * 5.29;
    System.out.println("Your " + amount + " pound is : " + f.format(ringgit) + " ringgit");
} else if (code == 4) {
    // For Euro Conversion

    rupee = amount * 80;
    System.out.println("Your " + amount + " euro is : " + f.format(rupee) + " Ruppes");

    dollar = amount * 1.14;
    System.out.println("Your " + amount + " euro is : " + f.format(dollar) + " Dollar");

    pound = amount * 0.90;
    System.out.println("Your " + amount + " euro is : " + f.format(pound) + " Pound");

    yen = amount * 127.32;
    System.out.println("Your " + amount + " euro is : " + f.format(yen) + " Yen");

    ringgit = amount * 4.78;
```

```
            System.out.println("Your " + amount + " euro is : " + f.format(ringgit) + " ringgit");
        } else if (code == 5) {

            // For Yen Conversion

            rupee = amount * 0.63;
            System.out.println("Your " + amount + " yen is : " + f.format(rupee) + " Ruppes");

            dollar = amount * 0.008;
            System.out.println("Your " + amount + " yen is : " + f.format(dollar) + " Dollar");

            pound = amount * 0.007;
            System.out.println("Your " + amount + " yen is : " + f.format(pound) + " Pound");

            euro = amount * 0.007;
            System.out.println("Your " + amount + " yen is : " + f.format(euro) + " Euro");

            ringgit = amount * 0.037;
            System.out.println("Your " + amount + " yen is : " + f.format(ringgit) + " ringgit");
        } else if (code == 6) {
            // For Ringgit Conversion

            rupee = amount * 16.8;
            System.out.println("Your " + amount + " ringgit is : " + f.format(rupee) + " Ruppes");

            dollar = amount * 0.239;
            System.out.println("Your " + amount + " ringgit is : " + f.format(dollar) + " dollar");

            pound = amount * 0.188;
            System.out.println("Your " + amount + " ringgit is : " + f.format(pound) + " pound");

            euro = amount * 0.209;
            System.out.println("Your " + amount + " ringgit is : " + f.format(euro) + " euro");

            yen = amount * 26.63;
            System.out.println("Your " + amount + " ringgit is : " + f.format(yen) + " yen");
        } else {
            System.out.println("Invalid input");
        }

        System.out.println("Thank you for choosing currency converter");
    }

}
```

7. TESTING

High Level Test

Test Case	Description	Output(Passed/Not Passed
H_01	Viewing currency list - calling file extraction function and conversion function - Scenario based test	Passed

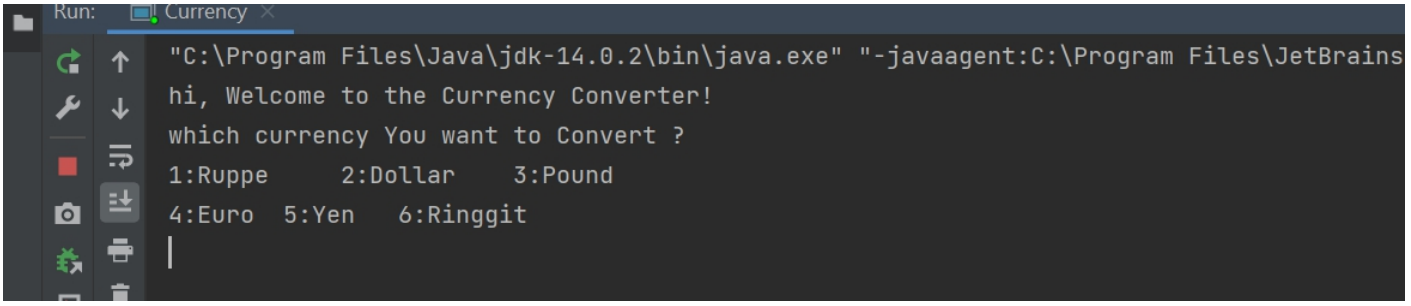
Low Level Test

Test Case	Description	Output(Passed/Not Passed
L_01	Rupee options function - Requirement based test	Passed
L_02	Dollar options function - Requirement based test	Passed
L_03	Pound options function - Requirement based test	Passed
L_04	Euro options function - Requirement based test	Passed
L_05	Yen options function - Requirement based test	Passed
L_06	Ringgit options function - Requirement based test	Passed
L_07	file extraction function - Scenario based test -	Passed
L_08	conversion function - Scenario based test	Passed
L_09	print output - - Scenario based test	Passed

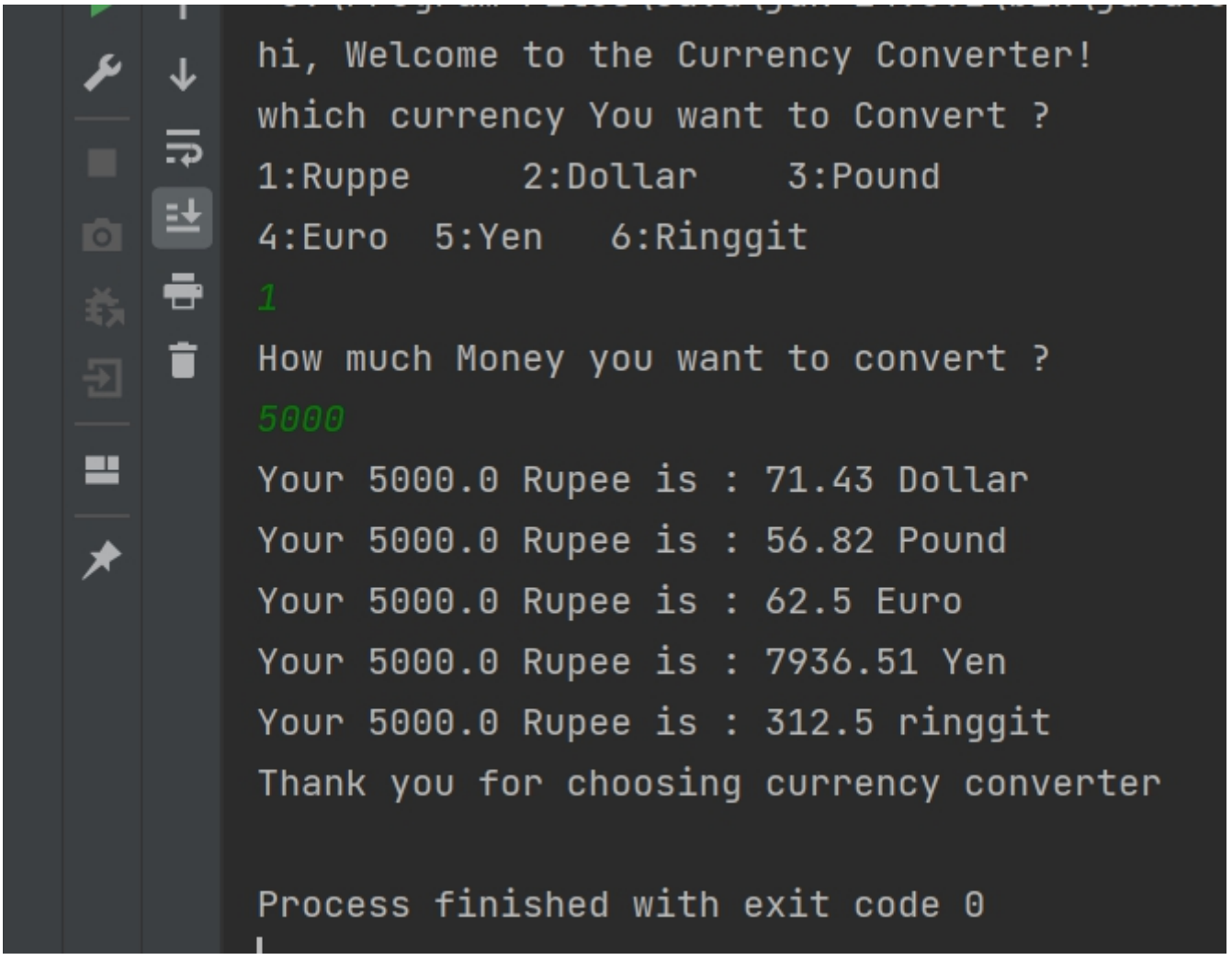
Note: These test cases are done manually by running the code.

8. OUTPUT SCREENS

CURRENCY TO BE CONVERTED:



Currency after Conversion:



9. CONCLUSION

Currency converter that the people are using, they will always find ways to get the highest possible profits out of the exchanges. To those who are going to travel, it is a wise thing to check the different foreign exchange options they have beforehand. Therefore currency converter is developed and is used for knowing the currency's value.

It can be further developed by including more currency options, and by shown currency value tables for the user.

10. BIBLIOGRAPHY

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