**Currency Converter**

***Abstract:***

***The Currency Converter project is a simple Java-based application that converts an amount from one currency to another using predefined exchange rates. It is designed for beginners to understand core Java concepts such as loops, conditional statements, methods, and user input. The application provides a menu-driven interface, making it easy to perform multiple conversions in a single session.***

***Objectives:***

1. ***To create a simple Java application for converting currencies.***
2. ***To practice basic Java programming concepts: loops, conditional statements, and methods.***
3. ***To design a menu-driven system for easy user interaction.***
4. ***To provide a project that can be easily enhanced with more currencies or GUI in the future.***

***Modules:***

***Module 1: Display Menu***

* ***Displays a menu with all available currency conversion options.***
* ***Provides the user with choices and instructions.***

***Module 2: User Input***

* ***Accepts user choice for currency conversion.***
* ***Accepts the amount to be converted.***

***Module 3: Conversion Logic***

* ***Uses fixed exchange rates to convert between currencies.***
* ***Implements switch-case for each conversion option.***

***Module 4: Output***

* ***Displays the converted currency value on the screen.***
* ***Allows repeated conversions until the user exits.***

***Source Code:***

***import java.util.Scanner;***

***public class CurrencyConverter {***

***public static void displayMenu() {***

***System.out.println("\n===== Currency Converter =====");***

***System.out.println("1. INR to USD");***

***System.out.println("2. INR to EUR");***

***System.out.println("3. INR to GBP");***

***System.out.println("4. USD to INR");***

***System.out.println("5. EUR to INR");***

***System.out.println("6. GBP to INR");***

***System.out.println("7. Exit");***

***System.out.print("Enter your choice (1-7): ");***

***}***

***// Main function***

***public static void main(String[] args) {***

***Scanner sc = new Scanner(System.in);***

***int choice;***

***double amount, convertedAmount;***

***// Fixed exchange rates***

***double inrToUsd = 0.012;***

***double inrToEur = 0.011;***

***double inrToGbp = 0.0095;***

***double usdToInr = 83.0;***

***double eurToInr = 90.0;***

***double gbpToInr = 105.0;***

***System.out.println("---------------------------------------------");***

***System.out.println(" CURRENCY CONVERTER PROJECT ");***

***System.out.println("---------------------------------------------");***

***// Loop for repeated conversions***

***while (true) {***

***displayMenu();***

***choice = sc.nextInt();***

***if (choice == 7) {***

***System.out.println("\nThank you for using the Currency Converter!");***

***System.out.println("Developed by: Revanth Denchanala");***

***break;***

***}***

***System.out.print("Enter amount: ");***

***amount = sc.nextDouble();***

***switch (choice) {***

***case 1:***

***convertedAmount = amount \* inrToUsd;***

***System.out.println(amount + " INR = " + convertedAmount + " USD");***

***break;***

***case 2:***

***convertedAmount = amount \* inrToEur;***

***System.out.println(amount + " INR = " + convertedAmount + " EUR");***

***break;***

***case 3:***

***convertedAmount = amount \* inrToGbp;***

***System.out.println(amount + " INR = " + convertedAmount + " GBP");***

***break;***

***case 4:***

***convertedAmount = amount \* usdToInr;***

***System.out.println(amount + " USD = " + convertedAmount + " INR");***

***break;***

***case 5:***

***convertedAmount = amount \* eurToInr;***

***System.out.println(amount + " EUR = " + convertedAmount + " INR");***

***break;***

***case 6:***

***convertedAmount = amount \* gbpToInr;***

***System.out.println(amount + " GBP = " + convertedAmount + " INR");***

***break;***

***default:***

***System.out.println("Invalid choice! Please enter between 1-7.");***

***}***

***}***

***sc.close();***

***}***

***}***

***OUTPUT:***

***---------------------------------------------***

***CURRENCY CONVERTER PROJECT***

***---------------------------------------------***

***===== Currency Converter =====***

***1. INR to USD***

***2. INR to EUR***

***3. INR to GBP***

***4. USD to INR***

***5. EUR to INR***

***6. GBP to INR***

***7. Exit***

***Enter your choice (1-7): 1***

***Enter amount: 1000***

***1000.0 INR = 12.0 USD***

***Enter your choice (1-7): 4***

***Enter amount: 10***

***10.0 USD = 830.0 INR***

***Enter your choice (1-7): 7***

***Thank you for using the Currency Converter!***

***Developed by: Revanth Denchanala***

***Conclusion:***

***The Currency Converter project successfully demonstrates a simple and practical Java application for converting currencies using predefined exchange rates. It reinforces core Java concepts such as loops, conditional statements, methods, and user input handling. The project is easy to use, menu-driven, and can be enhanced in the future by adding more currencies, live exchange rate integration, or a graphical user interface. This project serves as a good foundation for beginners to understand and implement real-world applications in Java.***