LONDON METROPOLITAN UNIVERSITY

ITAHARI INTERNATIONAL COLLEGE

Module: Programming

Module Code: CS4001

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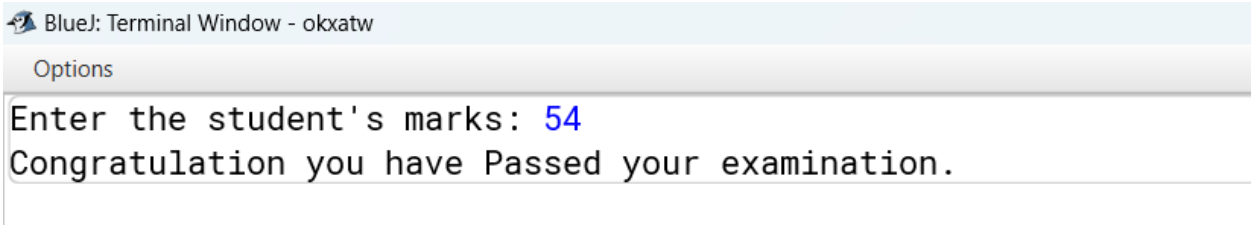
1) Write a program to determine if a student has passed or failed an examination.

Answer:

```
import java.util.Scanner;


public class passorfail{


   public static void main(String[] args) {
      try (Scanner scanner = new Scanner(System.in)) {
         System.out.print("Enter the student's marks: ");
         int score=scanner.nextInt();
         if(score>=32){
         System.out.println("Congratulation you have Passed your examination.");
      } else {
         System.out.println("Sorry you have Failed your examination.");
      }
   }
}
}
```

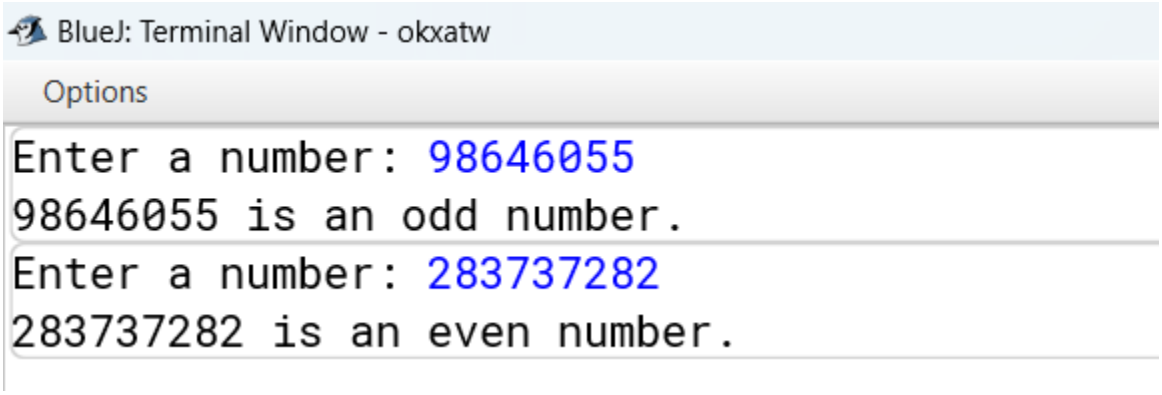


2) Write a program to check whether the given number is either even or odd. Hint: Use modulus (%) operator.

Answer:

```
import java.util.Scanner;


public class EvenOrOdd {
    public static void main(String[] args) {
        try (Scanner scanner = new Scanner(System.in)) {
            System.out.print("Enter a number: ");
            int number = scanner.nextInt();
            if (number % 2 == 0) {
                System.out.println(number + " is an even number.");
            } else {
                System.out.println(number + " is an odd number.");
            }
        }
    }
}
```

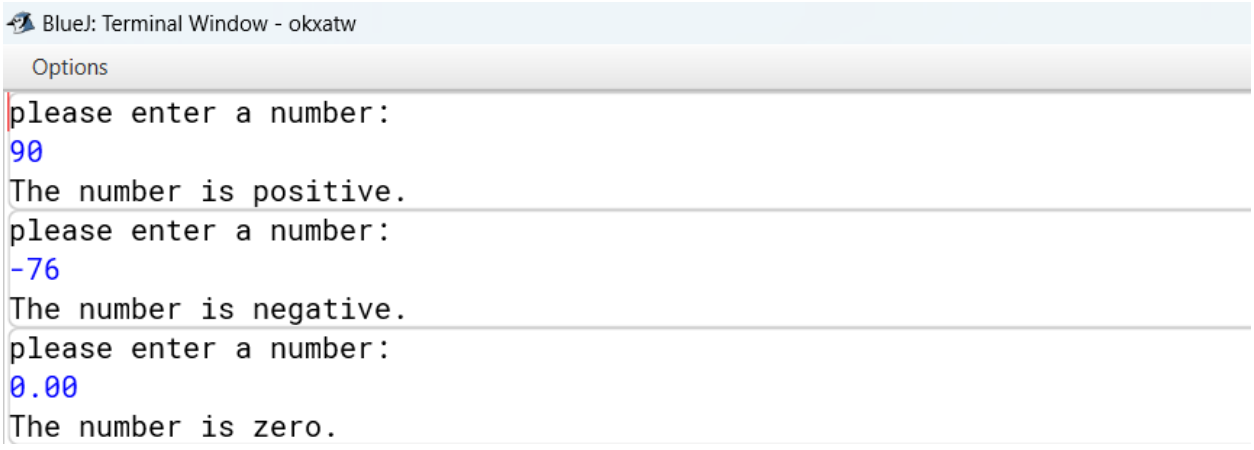


3) Write a program to determine if the number is positive, negative or zero.

Answer:

```
import java.util.Scanner;


public class NumberCheck {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);
         System.out.println("please enter a number: ");
         double number = scanner.nextDouble();
         if (number > 0) {
            System.out.println("The number is positive.");
         } else if (number < 0) {
            System.out.println("The number is negative.");
         } else {
            System.out.println("The number is zero.");
         }
      }
  }
```



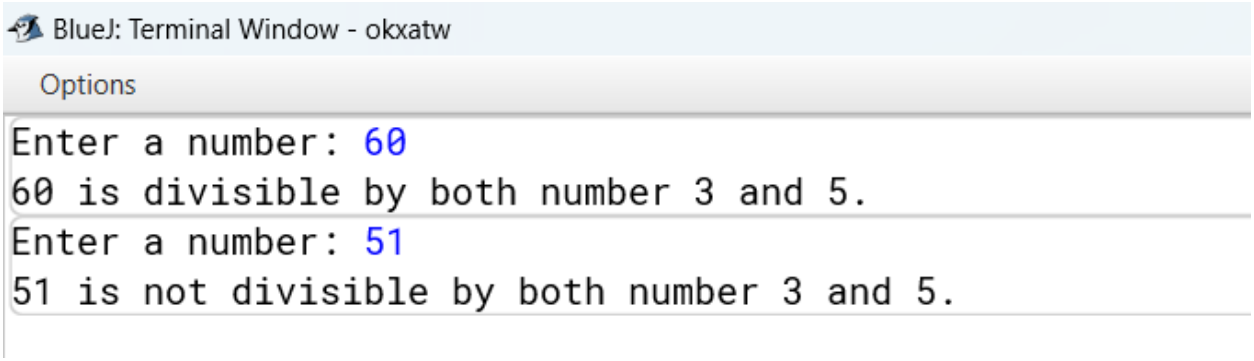
4) Write a program to check whether the given number is either divisible by both 3 and 5 or not.

Answer:

```
import java.util.Scanner;


public class DivisibilityCheck {


    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int number = scanner.nextInt();
        if (number % 3 == 0 && number % 5 == 0) {
            System.out.println(number + " is divisible by both number 3 and 5.");
        } else {
            System.out.println(number + " is not divisible by both number 3 and 5.");
        }
    }
}
```

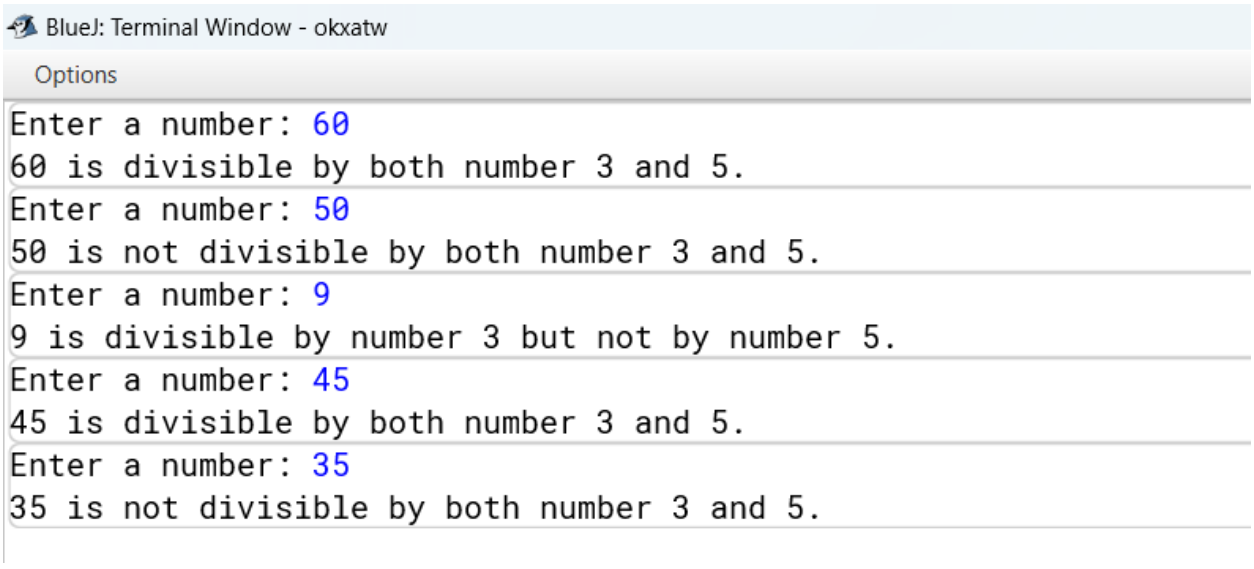


5) Solve same question no 4) by using nested if.

Answer:

```
import java.util.Scanner;

public class DivisibilityCheckByUsingNestedIf {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int number = scanner.nextInt();
        if (number % 3 == 0) {
            if (number % 5 == 0) {
                System.out.println(number + " is divisible by both number 3 and 5.");
            } else {
                System.out.println(number + " is divisible by number 3 but not by number
5.");
            }
        } else {
            System.out.println(number + " is not divisible by both number 3 and 5.");
        }
    }
}
```



6) Write a program to display the selling price of the item according to the given discount percent which is based on the different
categories.

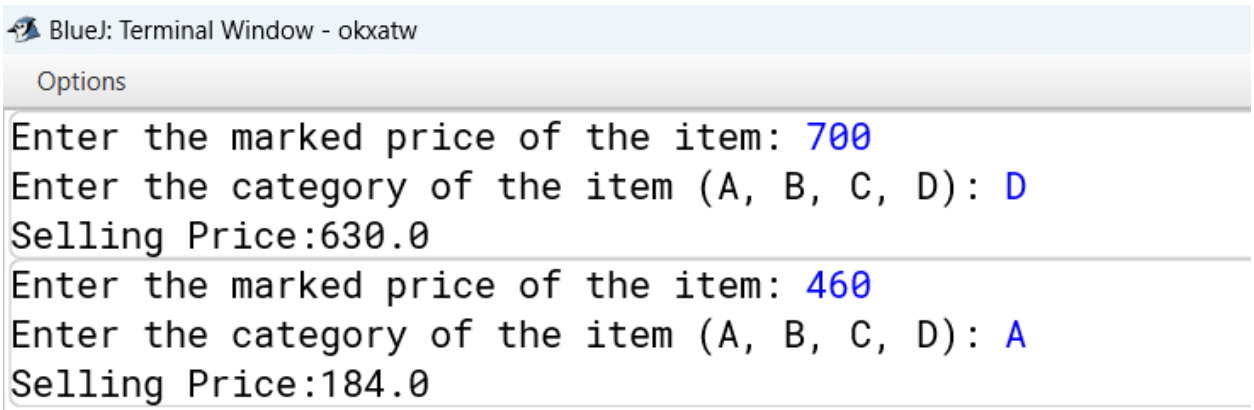
Answer:

```
import java.util.Scanner;

public class discountprice{

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the marked price of the item: ");
        float markedPrice = scanner.nextFloat();

        System.out.print("Enter the category of the item (A, B, C, D): ");
        char category = scanner.next().charAt(0);
        float discountPercent = 0;
        if (category == 'A'){
            discountPercent = 60;
        } else if (category == 'B') {
            discountPercent = 40;
        } else if (category == 'C') {
            discountPercent = 20;
        } else if (category == 'D') {
            discountPercent = 10;
        } else {
            System.out.println("Invalid category! Please enter A, B, C, or D.");
        }
        float discountAmount = (discountPercent / 100) * markedPrice;
        float sellingPrice = markedPrice - discountAmount;
        System.out.println("Selling Price:" + sellingPrice);
    }
}
```



7) Solve the above Q.6 by using switch statement.

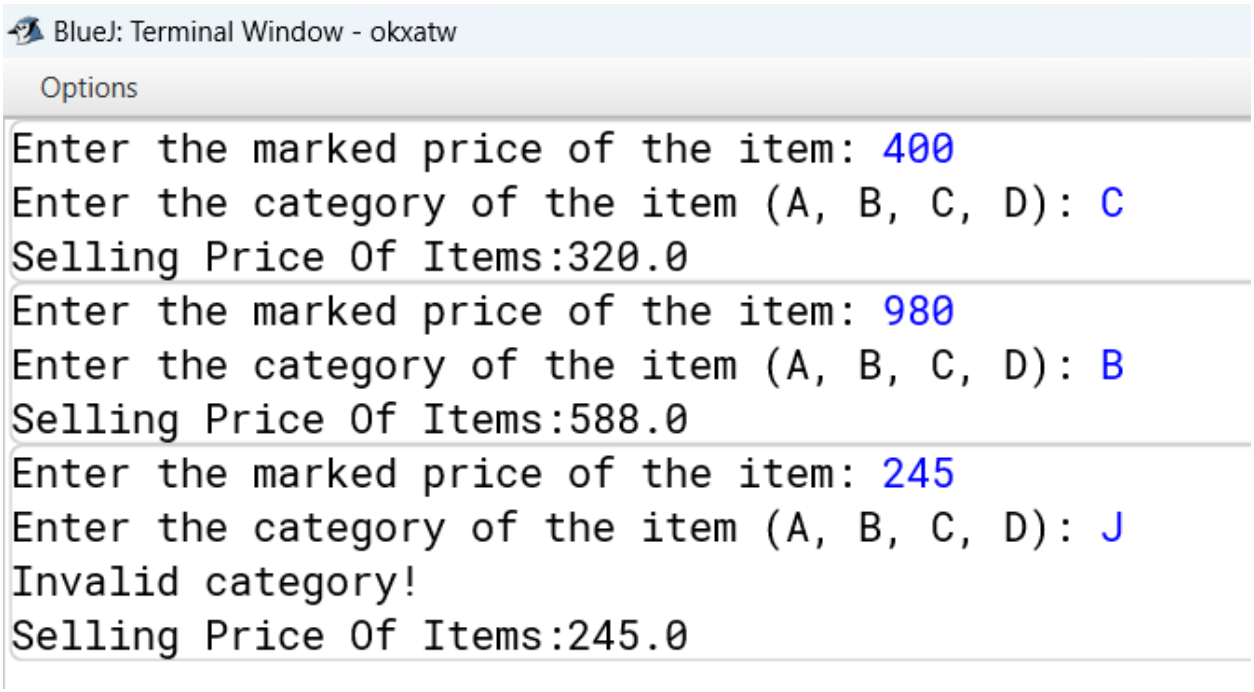
Answer:

```
import java.util.Scanner;

public class SellingPriceCalculator {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the marked price of the item: ");
        float markedPrice = scanner.nextFloat();

        System.out.print("Enter the category of the item (A, B, C, D): ");
        char category = scanner.next().charAt(0);
        float discountPercent = 0;
        switch (category) {
            case 'A':
                discountPercent = 60;
                break;
            case 'B':
                discountPercent = 40;
                break;
            case 'C':
                discountPercent = 20;
                break;
            case 'D':
                discountPercent = 10;
                break;
            default:
                System.out.println("Invalid category!");
        }
        float discountAmount = (discountPercent / 100) * markedPrice;
        float sellingPrice = markedPrice - discountAmount;
        System.out.println("Selling Price Of Items:" + sellingPrice);
    }
}
```


BlueJ: Terminal Window - okxatw
Options
Enter the marked price of the item: 400
Enter the category of the item (A, B, C, D): C
Selling Price Of Items:320.0
Enter the marked price of the item: 980
Enter the category of the item (A, B, C, D): B
Selling Price Of Items:588.0
Enter the marked price of the item: 245
Enter the category of the item (A, B, C, D): J
Invalid category!
Selling Price Of Items:245.0