

31  
# Write a Java program to print the current date and time in the specified format.

⇒  
import java.time.LocalDateTime;  
import java.time.format.DateTimeFormatter;  
  
public class CurrentDateTime {  
 public static void main (String[] args) {  
 LocalDateTime now = LocalDateTime.now();  
 DateTimeFormatter formatter = DateTimeFormatter.ofPattern  
 (pattern : "dd-mm-yyyy HH:mm:ss");  
 String formattedDateTime = now.format(formatter);  
 System.out.println ("Current Date and Time: " + formattedDate  
 Time);  
 }  
}

32] Write a Java class named CounterClass that contains a static variable instanceCount to keep track of the number of objects created. If the total number of object exceeds 50, reset the count back to zero.

```
⇒ public class CounterClass {  
    private static int instanceCount = 0;  
    public CounterClass() {  
        instanceCount++;  
        if (instanceCount > 50) {  
            instanceCount = 0;  
        }  
    }  
    public static int getInstanceCount() {  
        return instanceCount;  
    }  
    public static void main (String[] args) {  
        for (int i = 0; i < 55; i++) {  
            new CounterClass();  
        }  
    }  
}
```

```

System.out.println("Total instances created: " +
    CounterClass.getInstanceCount());
}
}

33) public class ExtremeFinder {
    public static int findExtreme(String type, int... numbers) {
        if (numbers.length == 0) {
            throw new IllegalArgumentException("At least one
                number must be provided.");
        }
        int result = numbers[0];
        for (int num : numbers) {
            if (type.equalsIgnoreCase("smallest")) {
                if (num < result) {
                    result = num;
                }
            }
        }
    }
}

```

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        else if (type.equalsIgnoreCase("largest")) {
            if (num > result) {
                result = num;
            }
            else {
                throw new IllegalArgumentException("Type
                    must be 'smallest' or 'largest'");
            }
        }
        return result;
    }
    public static void main(String[] args) {
        int x = findExtreme("smallest", 5, 2, 0, 1);
        int y = findExtreme("largest", 8, 3, 10, 4);
        System.out.println("Smallest: " + x);
        System.out.println("Largest: " + y);
    }
}

```



39)

```
public class snippet {  
    public static void main (String[] args) {  
        String s1 = "This is ICT 2107 Java";  
        String s2 = new String ("This is ICT 2107 Java");  
        String s3 = "This is ICT 2107 Java";  
        System.out.println (s1.equals (s2));  
        System.out.println (s1 == s2);  
        System.out.println (s1 == s3);  
    }  
}
```

Output:  
true  
false  
true

```

401 import java.util.Scanner;

public class ArithmeticOperations {
    public static void main (String[] args) {
        Scanner scanner = new Scanner (System.in);
        int p = scanner.nextInt();
        int q = scanner.nextInt();
        int sum = p + q;
        int diff = Math.abs(p - q);
        int product = p * q;
        String quotient = (q != 0) ? String.valueOf(p / q) :
        "Undefined (Division by zero is not allowed)";

        System.out.println ("Sum: " + sum);
        System.out.println ("Difference: " + diff);
        System.out.println ("Product: " + product);
        System.out.println ("Quotient: " + quotient);
        scanner.close();
    }
}

```