

Practical No : 14

Write a program to implement an interface using extends keyword.

```
import java.lang.*;
import java.util.*;

class Animals {
    public void run() {
        System.out.println("Animal can be Wild or Domestic!");
    }
}

interface Runnable {
    void runFast();
}

interface Barkable {
    void bark();
}

class Dog extends Animals implements Runnable, Barkable {
    @Override
    public void runFast() {
        System.out.println("Dog is running fast!");
    }

    @Override
    public void bark() {
        System.out.println("Dog is barking!");
    }
}

public class InterfaceExample {
    public static void main(String[] args) {
        Dog dog = new Dog();
        dog.run();
    }
}
```

```
        dog.runFast();  
        dog.bark();  
    }  
}
```

Output:

Animal can be Wild or Domestic!

Dog is running fast!

Dog is barking!

Practical No : 15

Write a program to create inner classes.

```
public class InnerClass {  
    public class Inner {  
        public void Welcome() {  
            System.out.println("Welcome To Java Programming  
Language!");  
        }  
  
        public void Learn() {  
            System.out.println("Thank You! For Learning  
Java");  
        }  
    }  
  
    public static void main(String[] args) {  
        InnerClass outer = new InnerClass();  
        InnerClass.Inner inner = outer.new Inner();  
        inner.Welcome();  
        inner.Learn();  
    }  
}
```

Output:

Welcome To Java Programming Language!
Thank You! For Learning Java!

Practical No : 16

Write a program to create user-defined packages.

Here, we create a package named mypackage: **mypackage* is a folder where we created **"MyPackage"**

```
//user-defined packages:

package mypackage;

public class MyPackage {
    public static void Welcome() {
        System.out.println("Welcome To Custom Package!");
    }
    public static void Perform() {
        System.out.println("Now, Perform Operation By Using
This Package!");
    }
}
```

Here we are using our own created custom package inside the main code:

```
import mypackage.MyPackage;

public class UserDefinedPackage {
    public static void main(String[] args){
        MyPackage.Welcome();
        MyPackage.Perform();
    }
}
```

Output:

Welcome To Custom Package!
Now, Perform Operation By Using This Package!

Practical No : 17

Write a java program that displays the number of characters, lines and words in a text.

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        // Print a message to the console
        System.out.println("Bharat_sinh_Rathod");

        // Create a Scanner object to read user input
        Scanner scanner = new Scanner(System.in);

        // Prompt the user to enter text with instructions
        System.out.println("Enter your text (Enter an empty line to finish):");

        int charCount = 0; // Variable to count characters
        int wordCount = 0; // Variable to count words
        int lineCount = 0; // Variable to count lines

        // Continue reading lines of text until an empty line is entered
        while (true) {
            String line = scanner.nextLine();
            if (line.isEmpty()) {
                break; // Exit the loop when an empty line is entered
            }

            // Count characters by adding the length of the line
            charCount += line.length();
        }
    }
}
```

```
// Split the line into words using space as a delimiter and count words
String[] words = line.split("\\s+");
wordCount += words.length;

// Increment the line count for each line read
lineCount++;
}

// Display the counts of characters, words, and lines
System.out.println("Character count: " + charCount);
System.out.println("Word count: " + wordCount);
System.out.println("Line count: " + lineCount);
}
}
```

OUTPUT:

Bharat_sinh_Rathod

Enter your text (Enter an empty line to finish):

My name is bharat sinh, i'm from gujarat.

Character count: 41

Word count: 8

Line count: 1