

Java Lab File

Lab 4:-

Program 9: Write and implement java program to instance methods and static methods.

Code:-

```
public class MathOperations {  
    // Instance method to calculate the square of a number  
    double square(double num) {  
        return num * num;  
    }  
    // Static method to calculate the factorial of a number  
    static int factorial(int n) {  
        if (n == 0)  
            return 1;  
        else  
            return n * factorial(n - 1);  
    }  
    public static void main(String[] args) {  
        MathOperations mathObj = new MathOperations();  
  
        // Calling instance method  
        double result1 = mathObj.square(5.5);  
        System.out.println("Square of 5.5 is: " + result1); //  
Output: Square of 5.5 is: 30.25  
  
        // Calling static method  
        int result2 = factorial(5);  
        System.out.println("Factorial of 5 is: " + result2); //  
Output: Factorial of 5 is: 120  
    }  
}
```

Output

```
[Running] cd "c:\Users\Kartik Verma\0  
Square of 5.5 is: 30.25  
Factorial of 5 is: 120
```