**TEST 6**

**DEBUGGING**

1. public class Counter {

private int count = 0;

public void increment() {

count++;

}

public int getCount() {

return count;

}

}

public class Test {

public static void main(String[] args) {

Counter counter = new Counter();

while (counter.getCount() &lt; 10) {

counter.increment();

}

System.out.println(&quot;Counter reached: &quot; + counter.getCount());

}

}

 Issue: Static field not retaining value across instances.

 Solution: Check singleton implementation for proper instance handling.

**PROGRAM**

public class test2 {

    static public int count = 0;

    static public class Counter {

    public void increment() {

    count++;

    }

    public int getCount() {

    return count;

    }

    }

    public static void main(String[] args) {

    Counter counter = new Counter();

    while (counter.getCount() <10) {

    counter.increment();

    }

    System.out.println("Counter Reached The Count Is:-"+count);

    }

    }

1. public class Employee {

private String name;

public Employee(String name) {

this.name = name;

}

public String getName() {

return name;

}

}

public class Test {

public static void main(String[] args) {

Employee e = new Employee(&quot;John&quot;);

System.out.println(e.name); // Compilation error

}

}

 Issue: Direct access to private field name.

 Solution: Use getter method getName() to access private fields.

**PROGRAM**

public class Test {

  static public class Employee {

        String name;

        public Employee(String nam) {

        this.name = nam;

        }

        public String getName() {

        return name;

        }

        }

    public static void main(String[] args) {

    Employee e = new Employee("VarunKumar");

    String name;

    name=e.getName();

    System.out.println(name);

    }

}

1. 3. Question: Why is the FileNotFoundException not being caught when trying to open a file?

 Potential Issue: Make sure the FileInputStream or FileReader is enclosed in a try-

catch block.

public class FileOpener {

public void openFile(String filePath) {

try {

FileReader fileReader = new FileReader(filePath);

BufferedReader br = new BufferedReader(fileReader);

String line;

while ((line = br.readLine()) != null) {

System.out.println(line);

}

br.close();

} catch (FileNotFoundException e) {

System.out.println(&quot;File not found: &quot; + filePath);

} catch (IOException e) {

e.printStackTrace();

}

}

}

public class TestFileOpener {

public static void main(String[] args) {

FileOpener opener = new FileOpener();

opener.openFile(&quot;missingfile.txt&quot;);

**PROGRAM**

import java.io.BufferedReader;

import java.io.FileNotFoundException;

import java.io.FileReader;

import java.io.IOException;

class FileOpener {

    public void openFile(String filePath) {

        try {

            FileReader fileReader = new FileReader(filePath);

            BufferedReader br = new BufferedReader(fileReader);

            String line;

            while ((line = br.readLine()) != null) {

                System.out.println(line);

            }

            br.close();

        } catch (FileNotFoundException e) {

            System.out.println("File not found: " + filePath);

        } catch (IOException e) {

            e.printStackTrace();

        }

    }

}

public class TestFileOpener {

    public static void main(String[] args) {

        FileOpener opener = new FileOpener();

        opener.openFile("missingfile.txt");

   }

}

1. Question: Why is my array not printing the correct values?

 Potential Issue: Ensure the array values are set correctly before printing.

public class PrintArray {

public static void main(String[] args) {

int[] numbers = new int[3];

numbers[0] = 10;

numbers[1] = 20;

numbers[2] = 30;

for (int num : numbers) {

System.out.println(num);

**PROGRAM**

public class Test1

{

    public static void main(String[] args)

    {

        int[] arr=new int[3];

        arr[0]=10;

        arr[1]=20;

        arr[2]=30;

        for(int num:arr)

        {

            System.err.println(num);

        }

    }

}