

## **Problem Statement 4: Extent Reports Integration**

Building upon the Automated Testing Framework, this enhancement focuses on integrating Extent Reports to provide detailed and visually appealing test reports. The reports include environment-related details such as the operating system, Java version, host name, and browser information.

### **Implementation Details:**

- The `MyTestListener` class now includes implementations for `onStart` and `onFinish` methods of the `ITestListener` interface.
- In the `onStart` method, an `ExtentReports` instance is created, and environment-related details are logged.
- The `onFinish` method flushes the reports and closes the `ExtentReports` instance.

### **Usage:**

- Integrate `MyTestListener` into the TestNG test suite to enable the generation of Extent Reports at the end of the test execution.

### **Environment Details:**

- OS: Operating System information retrieved from `System.getProperty("os.name")`.
- Java Version: Java version information retrieved from `System.getProperty("java.version")`.
- Host Name: Host name information retrieved using `InetAddress.getLocalHost().getHostName()`.
- Browser: Chrome (static information for this example).
- Operating System: Windows 10 (static information for this example).

Dec 1, 2023 03:37:25 pm

Tests

Default test

3:37:25 pm / 00:00:15:484

Pass

Default test

12.01.2023 3:37:25 pm12.01.2023 3:37:40 pm00:00:15:484#test-id=1

STATUS

TIMESTAMP

DETAILS

Pass

3:37:33 pm

testLogin is passed

Pass

3:37:35 pm

testLogin is passed

Pass

3:37:37 pm

testLogin is passed

Pass

3:37:39 pm

testLogin is passed

Pass

3:37:40 pm

testLogin is passed

Dec 1, 2023 03:37:25 pm

Tests

Log events

1 tests passed  
0 tests failed, 0 skipped, 0 others

5 events passed  
0 events failed, 0 others

Timeline

System/Environment

NAME	VALUE
OS	Windows 11
JAVA	20.0.2

```

package Base;
import java.awt.Desktop;

public class BaseTest {
    public static WebDriver driver;
    public static ExtentReports extentreports;
    public static ExtentTest extentTest;

    @BeforeTest
    public void getNameMethod(ITestContext context) {
        extentTest = extentreports.createTest(context.getName());
    }

    @BeforeSuite
    public void InitializeExtentReport() {
        ExtentSparkReporter sparkreporter = new ExtentSparkReporter("Report.html");
        extentreports = new ExtentReports();
        extentreports.attachReporter(sparkreporter);
        extentreports.setSystemInfo("OS", System.getProperty("os.name"));
        extentreports.setSystemInfo("JAVA", System.getProperty("java.version"));

    }

    @BeforeClass(alwaysRun = true)
    public void setUp() {
        WebDriverManager.chromedriver().setup();
        driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.manage().deleteAllCookies();
    }

    @AfterClass(alwaysRun = true)
    public void tearDown() {
        if (driver != null) {
            driver.quit();
        }
    }

    @AfterSuite
    public void generateReports() throws Exception {
        extentreports.flush();
        Desktop.getDesktop().browse(new File("Report.html").toURI());
    }

    @AfterMethod
    public void generateTestStatus(Method m, ITestResult result) throws IOException {
        if (result.getStatus() == ITestResult.FAILURE) {

            extentTest.fail(result.getThrowable());
        } else if (result.getStatus() == ITestResult.SUCCESS) {
            extentTest.pass(m.getName() + " is passed");
        }
    }
}

```

