3.8 Generate Log on Eclipse Console Using Log4j



This section will guide you to:

* Generate log on Eclipse console using Log4j

**Development Environment:**

* Eclipse IDE
* Java 1.8

This guide has five subsections, namely:

3.8.1 Creating a Maven project

3.8.2 Updating the pom.xml file with the required dependencies

3.8.3 Creating log4j.properties file for ConsoleAppender

3.8.4 Testing the REST API using REST Assured and Log4j

3.8.5 Pushing the code to GitHub repositories

**Step 3.8.1:** Creating aMaven project

* Open Eclipse.
* Click on File---> New--->Project.
* Select the Maven project and click on Next.
* Enter the Group id and Artifact id and click on Finish.

**Step 3.8.2:** Updating the pom.xml file with the required dependencies

* Open the pom.xml file.
* Add the dependencies given below to pom.xml file:

<dependency>

<groupId>io.rest-assured</groupId>

<artifactId>rest-assured</artifactId>

<version>3.3.0</version>

<scope>test</scope

></dependency>

<dependency>

<groupId>org.testng</groupId>

<artifactId>testng</artifactId>

<version>6.14.3</version>

<scope>test</scope>

</dependency>

<dependency>

<groupId>log4j</groupId>

<artifactId>log4j</artifactId>

<version>1.2.17</version>

</dependency>

**Step 3.8.3:** Creating alog4j.properties file for ConsoleAppender

* Right click on Project --> New --> File.
* Name the file **log4j.properties** and click on Finish.
* Open log4j.properties.
* Write the code as given below:

# Root Logger option

log4j.rootLogger=INFO, file, stdout

# Direct log messages to stdout

log4j.appender.stdout=org.apache.log4j.ConsoleAppender

log4j.appender.stdout.Target=System.out

log4j.appender.stdout.layout=

org.apache.log4j.PatternLayout

log4j.appender.stdout.layout.ConversionPattern=

%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L %m%n

**Step 3.8.4:** Testing the REST API using REST Assured and Log4j

* Create a package **com.employeeapi.base** inside the src/test/java directory.
* Create a class **TestBase.java** inside the package **com.employeeapi.base.**
* Write the code given below:

1. EmployeesRestAPI is the name given to logger.
2. Log4j.properties is the name of the file created.

**package** com.employeeapi.base;

**import** org.apache.log4j.Level;

**import** org.apache.log4j.Logger;

**import** org.apache.log4j.PropertyConfigurator;

**import** org.testng.annotations.BeforeClass;

**import** io.restassured.response.Response;

**import** io.restassured.specification.RequestSpecification;

**public** **class** TestBase {

**public** **static** RequestSpecification httpRequest;

**public** **static** **Response** response;

**public** **String** empId="55123";

**public** **Logger** logger;

**@BeforeClass**

**public** void setup()

{

logger=**Logger**.getLogger("EmployeesRestAPI");

PropertyConfigurator.configure("Log4j.properties");

logger.setLevel(**Level**.DEBUG);

}

}

* Create a package **com.employeeapi.testcases** inside the src/test/java directory.
* Create a class **GetAllEmployees.java** inside the package **com.employeeapi.testcases.**
* Write the code given below:

**package** com.employeeapi.testcases;

**import** org.testng.Assert;

**import** org.testng.annotations.BeforeClass;

**import** org.testng.annotations.Test;

**import** com.employeeapi.base.TestBase;

**import** io.restassured.RestAssured;

**import** io.restassured.http.Method;

**import** io.restassured.response.ResponseBody;

**public** **class** GetAllEmployees **extends** TestBase{

**@BeforeClass**

void getAllEmployees() **throws** **InterruptedException** {

logger.info

("\*\*\*\*\*\*\*\*statrt of GetAllEmployees class\*\*\*\*\*\*\*\*\*\*");

RestAssured.baseURI=

"http://192.168.1.207:8080/api/employee/search";

httpRequest = RestAssured.given();

response =

httpRequest.request(**Method**.GET,"/8095393564");

**Thread**.sleep(5000);

}

**@Test**

void checkResponseBody() {

logger.info

("\*\*\*\*\*\*\*Inside checkResponseBody\*\*\*\*\*\*\*");

**String** responseBody=response.getBody().asString();

logger.info("Response Body ==> "+responseBody);

Assert.assertTrue(responseBody!=**null**);

}

**@Test**

void checkStatusCode() {

logger.info("\*\*\*\*Inside checkStatusCode\*\*\*\*\*\*\*");

int statusCode=response.getStatusCode();

logger.info("StatusCode ==>"+statusCode);

Assert.assertEquals(statusCode, 200);

}

**@Test**

void checkStatusLine() {

logger.info

("\*\*\*\*\*\*\*\*Inside checkStatusLine\*\*\*\*\*\*\*\*\*");

**String** statusLine=response.getStatusLine();

logger.info("StatusLine ==>"+statusLine);

Assert.assertEquals(statusLine, "HTTP/1.1 200 ");

}

**@Test**

void checkContentType() {

logger.info

("\*\*\*\*\*\*\*\*Inside checkContentType\*\*\*\*\*\*\*\*\*");

**String** contentType=response.header("Content-Type");

logger.info("Content type is ==>"+contentType);

Assert.assertEquals

(contentType, "application/json; charset=UTF-8");

}

}

* Right click on GetAllEmployees class --> Run As --> TestNG Test.
* Verify the output in the console.

