

Case Study of GitHub Actions

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- **Code Structure with Main Java and Test Java Files:**

The screenshot displays a GitHub repository interface for 'CaseStudy0609' by user 'AhinRain'. The repository is public and has 1 branch and 0 tags. The commit history table shows the following files and their commit times:

File	Commit Time
.github/workflows	Create maven.yml (7 minutes ago)
src	Update HelloWorld.java (5 minutes ago)
README.md	Create README.md (14 minutes ago)
pom.xml	Commit source and pom files (9 minutes ago)

The 'About' section on the right indicates no description, website, or topics provided. The 'Releases' section shows no releases published.

The 'Files' sidebar on the left shows the directory structure:

- .github
- src
- main/java/com/mt/sample (selected)
- test/java/com/mt/sample/test
- README.md
- pom.xml

The main content area displays the code for 'HelloWorld.java' (22 lines, 395 bytes). The code is as follows:

```
package com.mt.sample;

/**
 * Hello world!
 *
 */
import java.util.Date;

public class HelloWorld {

    public static void main(String[] args) {
        System.out.println("Hello everyone... Welcome to Maven Build Tool !! Today Date is: " + getLocalCurrentDate());
    }

    private static Date getLocalCurrentDate() {
        String m = "Mithun Technologies";
        return new Date();
    }

}
```

Files

main

Go to file

.github

src

main/java/com/mt/sample

HelloWorld.java

test/java/com/mt/sample/test

HelloWorldTest.java

README.md

pom.xml

AhinRain Commit source and pom files

c897cdf · 13 minutes ago History

Code Blame 38 lines (34 loc) · 785 Bytes

Raw

1 package com.mt.sample.test;

2

3 import junit.framework.Test;

4 import junit.framework.TestCase;

5 import junit.framework.TestSuite;

6

7 /**

8 * Unit test for HelloWorld.

9 */

10 public class HelloWorldTest

11 extends TestCase

12 {

13 /**

14 * Create the test case

15 *

16 * @param testName name of the test case

17 */

18 public HelloWorldTest(String testName)

19 {

20 super(testName);

21 }

22

23 /**

- Initial Build Success:

AhinRain / CaseStudy0609

Type to search

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Actions

New workflow

All workflows

Java CI with Maven

Management

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All workflows

Showing runs from all workflows

Filter workflow runs

1 workflow run

Event Status Branch Actor

Create maven.yml

Java CI with Maven #1: Commit 0ea995a pushed by AhinRain

main

now

20s

...

Type here to search

6:27 AM 9/6/2024

- **Maven.yml and its Build:**

The image displays a GitHub repository interface for 'CaseStudy0609'. The top section shows the file explorer on the left with the file 'maven.yml' selected. The main area displays the content of 'maven.yml', which is a GitHub Actions workflow for building a Java project with Maven. The workflow is triggered on push to the 'main' branch and includes steps for checking out the code, setting up JDK 17, and building the project with Maven.

```
9 name: Java CI with Maven
10
11 on:
12   push:
13     branches: [ "main" ]
14   pull_request:
15     branches: [ "main" ]
16
17 jobs:
18   build:
19
20     runs-on: ubuntu-latest
21
22     steps:
23     - uses: actions/checkout@v4
24     - name: Set up JDK 17
25       uses: actions/setup-java@v4
26       with:
27         java-version: '17'
28         distribution: 'temurin'
29         cache: maven
30     - name: Build with Maven
31       run: mvn -B package --file pom.xml
```

The bottom section shows the 'Actions' tab for the workflow 'Java CI with Maven'. It indicates that the workflow was successfully updated and run. The 'build' job is highlighted, and its logs are displayed, showing the successful execution of the workflow steps.

build
succeeded 2 minutes ago in 8s

Step	Duration
Set up job	1s
Run actions/checkout@v4	0s
Set up JDK 17	1s
Build with Maven	3s
Post Set up JDK 17	0s
Post Run actions/checkout@v4	0s
Complete job	0s

- **Changes in the Github Code:**

```
package com.mt.sample;

import java.util.Date;

public class HelloWorld {

    public static void main(String[] args) {
        System.out.println("Hello everyone... Welcome to Maven Build Tool !! Today Date is: " + getLocalCurrentDate());
    }

    private static Date getLocalCurrentDate() {
        String m = "Mithun Technologies";
        return new Date();
    }

}
```

- **Build Success after all the Changes:**

- Changes Done:
 1. Removed Comments
 2. Made changes in the print statement

Actions

New workflow

All workflows

Java CI with Maven

Management

Caches

Attestations

Runners

All workflows

Showing runs from all workflows

Filter workflow runs

2 workflow runs

	Event	Status	Branch	Actor
Update HelloWorld.java	Java CI with Maven #2: Commit bf1aa8a pushed by AhinRain	main	8 minutes ago	...
Create maven.yml	Java CI with Maven #1: Commit 0ea995a pushed by AhinRain	main	10 minutes ago	...

