

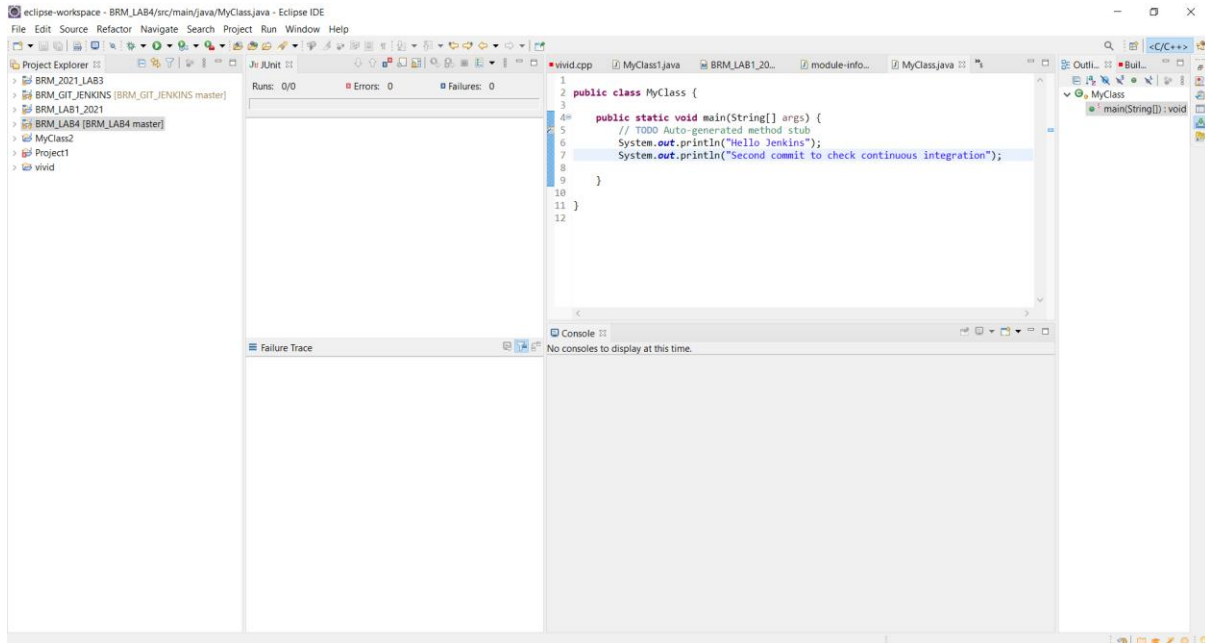
**BUILD AND RELEASE
MANAGEMENT
LAB FILE**

**LAB 4
11Th FEBRUARY**

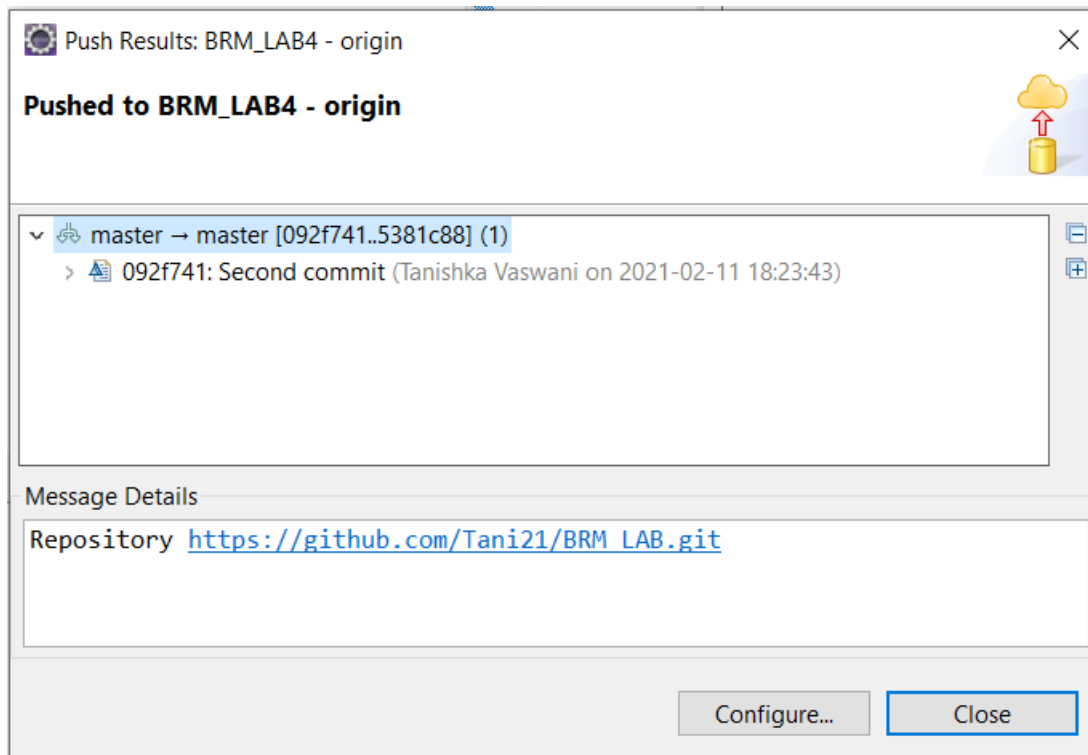
**TANISHKA VASWANI
500076374
R171219037
DEVOPS 2ND YEAR
4th SEMESTER**

AIM: To create a continuous integration pipeline using Jenkins

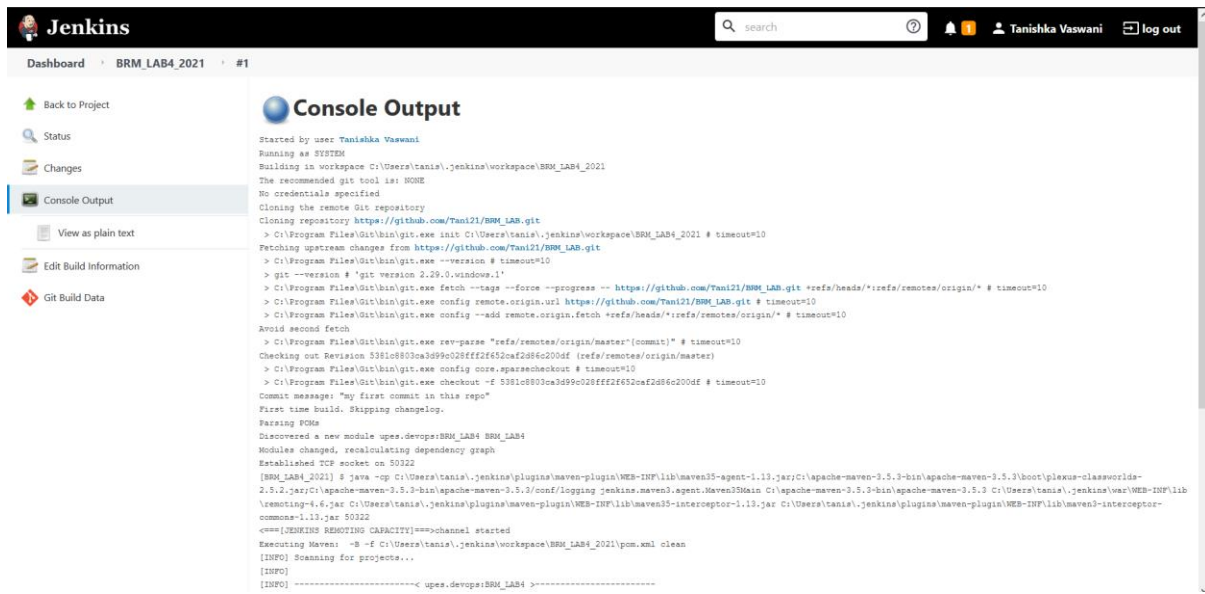
- Create a maven project and add a java file with the following code



- Push the following code to Github



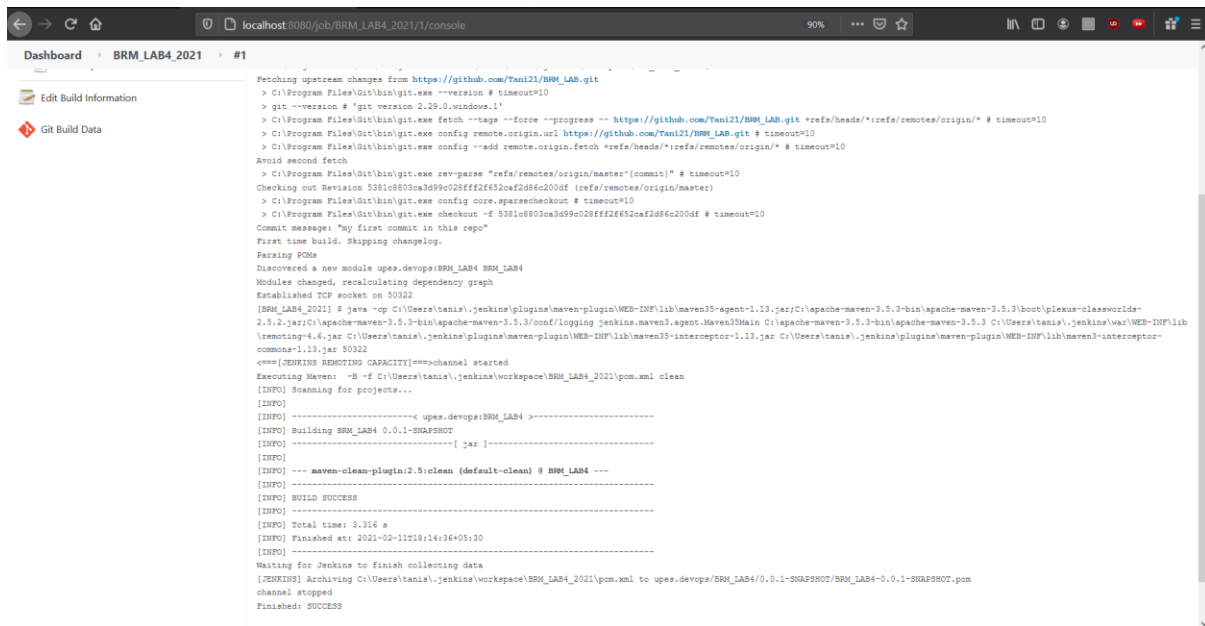
- Open Jenkins and build the code from Github. Set the build time to every minute



The screenshot shows the Jenkins web interface with the 'Console Output' tab selected. The output text details the build process, starting with 'Started by user Tanishka Vaswani' and 'Running as SYSTEM'. It shows the cloning of the repository 'https://github.com/Tan121/BRM_LAB.git' and the fetching of upstream changes. The build process includes a 'git fetch' command, a 'git checkout' command, and a 'mvn clean' command. The output also shows the execution of the 'mvn clean' command and the resulting 'BUILD SUCCESS' message.

```
Started by user Tanishka Vaswani
Running as SYSTEM
Building in workspace C:\Users\tania\jenkins\workspace\BRM_LAB4_2021
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/Tan121/BRM_LAB.git
> C:\Program Files\Git\bin\git.exe init C:\Users\tania\jenkins\workspace\BRM_LAB4_2021 # timeout=10
Fetching upstream changes from https://github.com/Tan121/BRM_LAB.git
> C:\Program Files\Git\bin\git.exe fetch --version # timeout=10
> git --version # 'git version 2.29.0.windows.1'
> C:\Program Files\Git\bin\git.exe fetch --tags --force --progress -- https://github.com/Tan121/BRM_LAB.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> C:\Program Files\Git\bin\git.exe config remote.origin.url https://github.com/Tan121/BRM_LAB.git # timeout=10
> C:\Program Files\Git\bin\git.exe config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> C:\Program Files\Git\bin\git.exe rev-parse "refs/remotes/origin/master" {commit} # timeout=10
Checking out Revision 5381c8803ca3d99c028ff2f652caf2d86c200df (refs/remotes/origin/master)
> C:\Program Files\Git\bin\git.exe config core.sparsecheckout # timeout=10
> C:\Program Files\Git\bin\git.exe checkout -f 5381c8803ca3d99c028ff2f652caf2d86c200df # timeout=10
Commit message: "My first commit in this repo"
First time build. Skipping changelog.
Parsing POMs
Discovered a new module upes.devs:BRM_LAB4 BRM_LAB4
Modules changed, recalculating dependency graph
Established TCP socket on 50322
[BRM_LAB4_2021] # java -cp C:\Users\tania\jenkins\plugins\maven-plugin\WEB-INF\lib\maven3-agent-1.13.jar;C:\apache-maven-3.5.3-bin\apache-maven-3.5.3\boot\plexus-classworlds-2.5.2.jar;C:\apache-maven-3.5.3-bin\apache-maven-3.5.3\conf\logging-jenkins-maven3-agent Maven3Main C:\apache-maven-3.5.3-bin\apache-maven-3.5.3\Users\tania\jenkins\war\WEB-INF\lib\remoting-4.6.jar C:\Users\tania\jenkins\plugins\maven-plugin\WEB-INF\lib\maven3-interceptor-1.13.jar C:\Users\tania\jenkins\plugins\maven-plugin\WEB-INF\lib\maven3-interceptor-commons-1.13.jar 50322
<==[JENKINS REMOTING CAPACITY]==>channel started
Executing Maven: -B -f C:\Users\tania\jenkins\workspace\BRM_LAB4_2021\pom.xml clean
[INFO] Scanning for projects...
[INFO]
[INFO] -----< upes.devs:BRM_LAB4 >-----
[INFO] Building BRM_LAB4 0.0.1-SNAPSHOT
[INFO] [ jar ]-----
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ BRM_LAB4 ---
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 3.316 s
[INFO] Finished at: 2021-02-11T18:14:34+05:30
[INFO]
[INFO] -----
[INFO] Waiting for Jenkins to finish collecting data
[JENKINS] Archiving C:\Users\tania\jenkins\workspace\BRM_LAB4_2021\pom.xml to upes.devs:BRM_LAB4/0.0.1-SNAPSHOT/BRM_LAB4-0.0.1-SNAPSHOT.pom
channel stopped
Finished: SUCCESS
```

- Build is successful



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Discovered a new module upes.devs:BRM_LAB4 BRM_LAB4
Modules changed, recalculating dependency graph
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[INFO] Scanning for projects...
[INFO]
[INFO] -----< upes.devs:BRM_LAB4 >-----
[INFO] Building BRM_LAB4 0.0.1-SNAPSHOT
[INFO] [ jar ]-----
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ BRM_LAB4 ---
[INFO] BUILD SUCCESS
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[INFO]
[INFO] -----
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channel stopped
Finished: SUCCESS
```

- Any time the code is changed, a build is generated automatically

The screenshot shows the Jenkins web interface for a project named **BRM_LAB4_2021**. The browser address bar shows `localhost:8080/job/BRM_LAB4_2021/`. The interface includes a left sidebar with navigation options: **Back to Dashboard**, **Status** (selected), **Changes**, **Workspace**, **Build Now**, **Configure**, **Delete Maven project**, **Modules**, **Git Polling Log**, and **Rename**. Below these is a **Build History** section with a search bar and a table of builds:

Build	Time
#2	Feb 11, 2021, 6:25 PM
#1	Feb 11, 2021, 6:13 PM

At the bottom of the sidebar are links for **Atom feed for all** and **Atom feed for failures**. The main content area is titled **Maven project BRM_LAB4_2021** and includes a **add description** button and a **Disable Project** button. Below this are links for **Workspace** and **Recent Changes**. A **Permalinks** section lists:

- Last build (#1), 6 min 20 sec ago
- Last stable build (#1), 6 min 20 sec ago
- Last successful build (#1), 6 min 20 sec ago
- Last completed build (#1), 6 min 20 sec ago

The footer of the page shows **REST API** and **Jenkins 2.277**.