

# CONTENTS

pt. o.	Date of Experiment	Name of the Experiment	Course outcome (co)	Page No.	Marks Awarded	Staff Sign. with Date
	31/01/25	Create Maven Build pipeline in Azure	CO1	01	10	Y. Jai 17/2/2025
	8/02/25	Create Maven build pipeline in azure for build aggregation - list.	CO5	13	9	Y. Jai 13/3
	24/02/25	Build a simple application using gradle.	CO2	15	10	Y. Jai 13/3/2025
	6/03/25	Create a CI pipeline in Jenkins and deploy in cloud	CO3	20	10	Y. Jai 27/3/2025
	9/03/25	Create a CD Pipeline using Jenkins	CO3	27	10	Y. Jai 17/4/2025
	11/4/25	Create a Ansible playbook for a simple web application infrastructure	CO4	31	10	Y. Jai 22/4/2025
	16/4/25	Configure ansible roles and do writing playbooks.	CO4	35	10	Y. Jai 22/4/2025

Ex: 1

- ① Create maven build pipeline in azure
- ② Github account
- ③ Notbeans -> program  
→ run → save pannamum
- ④ Then github lah (+)  
kuduka new repository  
Create pannum → saved  
program ah add →  
Commit pannamum
- ⑤ Microsoft azure for  
students -> search in  
google → Login → with  
azure account
- ⑥ Inside azure ->  
Search → azure devops  
organization nih  
Search pannamum  
→ choose → my azure  
devops organization  
→ create a new  
organization → continue  
→ our project name  
kudukanum → Then  
Project was created  
(inside)

⑦ Pipeline → create  
Pipeline → choose →  
github → choose needed  
program repository →  
cancel the (x) unwanted  
program → next page  
→ approve and install

(for recently  
created) →  
starter pipeline  
→ save and run.

2. Enter
3. Click
4. Click
5. Verify
6. Select
7. Note
8. Select

### 3. Create an A Student Acc

- Visit
- Sign
- acc
- You

Team  
available  
rate cloud based  
use DevOps

### Ex:2

create a maven build pipeline in azure for build regression test

#### Uploading procedures

are same as exp:1

But there is a few changes in the netbean → program uploading procedure.

① In Netbean → choose  
→ Maven → Java program  
→ run -

② chrome → maven repository → Junituh search → scroll down → version kah isti mukum (4.13.2) → click it.

Then choose

- ③ add dependency
- ④ group id
- ⑤ artifact id
- ⑥ version
- ⑦ slope - test.
- ⑧ Ellam copy pannam ovonrah-

③ Netbeans → dependencies

→ add dependencies

→ group id → themare

④, ⑤, ⑥, ⑦, ⑧

the alternation

add pannam

### ④ Project files

click file writing maven

→ POM file

location was changed

→ check for

dependencies wtf stack

if no maven repository

programah 1 →

kulla podanum

### ⑤ Building package

→ right click

new maven & alpof

→ Junit test

→ (program

← arun outside

maven project 2) → right click

→ run maven test

→ goals → compile

arun project → build

right click project

want to show

dependencies ← maven project

dependency info →

Maven → maven artifacts

base url → http://maven

(skipped)

2. Enter your personal details.
3. Click Verify to start the verification puzzle.
4. Click the green Create account button.
5. Verify your email by entering the code.
6. Select your preferences and click Continue.
7. Note the types of plans offered by GitHub.
8. Select the free plan.

Create an Azure student login and enter into Azure DevOps Create an Azure student Account:

- Visit the Azure for Students page.
- Sign up using your university or school email. You'll need to renew this account each year while you're a student.
- You'll receive a USD 100 credit to use with Azure services. No credit card is required to sign up for an Azure student account.

Q: ③ Build a simple application using gradle

#### ① Gradle installation

Then open

command prompt →

check gradle is installed "gradle --version"

if not google lah →

gradle download for windows 1st link →

about → click →

gradle release →

next page →

soft down → SV8

→ download → complete

#### ② File explorer

→ click download

→ gradle → click →

extract all

Then

Gradle folder →

bin → top ah right click

panni pathah copy

pannam.

#### ③ Environment variables

→ edit pannam

→ system variables

→ Path: now click

→ Paste that path

→ click ok.

④ Then in command

prompt : gradle --version

a) gradle --version (gradle)

b) mkdir java-app

c) cd java-app

d) gradle int

e) 1: Application choose: \_

f) 1: Java choose: \_

g) Java version tu-command

prompt - another open panni

java --version → potta ram

→ 21

Then now,

g) target java version → 21 hi

Kidaicha version ah podam

h) project name : jaragradle

i) single application.

Project : I choose it

j) Build script : for choosing groovy → 2

k) Test framework : JUnit  
→ \_

l) yes

m) j gradle build

n) tasks

o) run

p) dependency management

q) build, clean, test

r) package, sign, verify

2. Enter your person
3. Click Verify to st
4. Click the green C
5. Verify your email
6. Select your prefer
7. Note the types of
8. Select the free p

### 3. Create an Azure student account:

- Visit the Azure website
- Sign up using your student account each year
- You'll receive a free trial and discounts

visible  
the cloud based  
designs

### Gradle installation

#### Edit environment variables

variables → system

variables → user

Now → GRADLE\_HOME

→ copy path

path ah podarum

Then asthala pathnu

muttu ana chukku

panca pathu kannanum

File manager → Downloads

gradle → extract →

click → click → bin →

7z mala ullatha copy it

and paste there

number of us nizhal nibbidi

This PC → This PC → Up

→ jarai → app → app

→ src → main →

jarai → org-examyle

③ Then no repad →

type the program

add.jar → and

programlah class

name num → addnum

imbanu.

Then command prompt

javac add.jar

java add.jar

### ④ Jenkins pipelines

Jenkins login →

username →

password →

Then create a job.

① codejob.

→ pipeline

→ OK

→ next page opened

→ description → then the

keezha scroll down

In pipelinescript

→ choose helloworld.

→ Then org default

program varum

stages me instaullah(5)

copy it in 9th

next line → build job:

→ package job

stages( "package")

→ save.

② Another project

③ package job

→ pipeline of

→ pipelinescript

→ Hello world

→ save

→ Build now it is

the project (D) ah

Build now kudukkanum

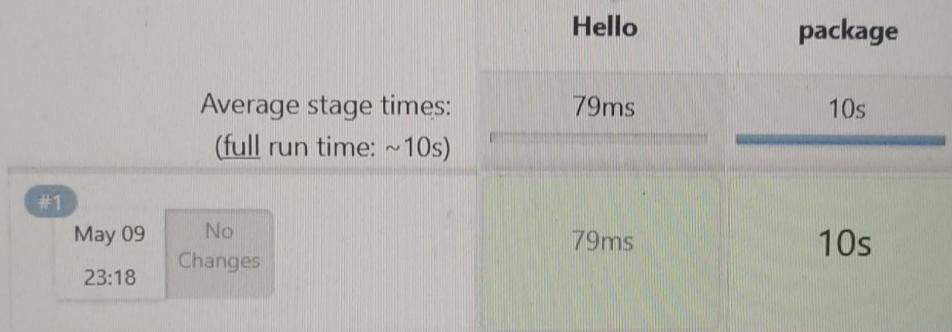
git hub manager Jenkins → plugins

→ stages pipeline

# codejob

job

## Stage View



## Permalinks

No builds





status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Tags

ename

Pipeline Syntax

## codejob

job

### Stage View

Average stage times:

Hello

package

79ms

7s

#1  
May 09  
23:18  
No Changes

79ms

7s

### Permalinks

No builds

## Configure

General

Triggers

Pipeline

Advanced

Script

```
4v      stages {
5v          stage('Hello') {
6v              steps {
7v                  echo 'Hello World'
8v              }
9v          }
10v         stage('package') {
11v             steps {
12v                 echo 'Hello World'
13v                 build job : 'packagejob'
14v             }
15v         }
16v     }
17v }
18v }
```



Use Groovy Sandbox ?

> Plugins

stage

Install Name ↓

Pipeline: Stage View 2.38

User Interface

Pipeline Stage View Plugin.

Pipeline Aggregator View 119.v4b\_ec11953552

User Interface

Full screen dashboard to view stages of the pipeline as a build history.

This plugin is up for adoption! We are looking for new maintainers. Visit [the plugin page](#) for more information.



Job and Stage monitoring 3.6.2

Watches pipeline jobs and provides job and stage stats such as time and pass/fail status, commit status (one status per stage) and send stats to an InfluxDB instance, or store them in a database for analysis of job/stage timing and success rate.

Splunk Plugin Extension 1.10.2

Clicking the update sites: UnknownHostException: updates.jenkins.io

Pipeline AS YAML (Incubated) 270.vc348a45d9214



Search



## Command Prompt

New

To see more detail about a task, run gradlew help [task]

BUILD SUCCESSFUL in 1s

1 actionable task: 1 executed

Configuration cache entry stored.

C:\Users\HP\fact-app>gradlew run

Calculating task graph as no cached configuration was found in C:\Users\HP\fact-app

> A > Task :app:run

Hello World!

> A > BUILD SUCCESSFUL in 1s

2 actionable tasks: 1 executed, 1 up-to-date

Configuration cache entry stored.

C:\Users\HP\fact-app>javac Add.java

De C:\Users\HP\fact-app>java Add.java

Type a number:

Do 12

Type another number:

Do 13

Pic Sum is: 25

Mu C:\Users\HP\fact-app>javac factt.java

Vic C:\Users\HP\fact-app>java factt.java

Ne Factorial of 5 is 120

Sc C:\Users\HP\fact-app>

hai

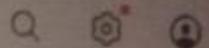
abi\_files

14 items | 1 item selected 480 bytes |

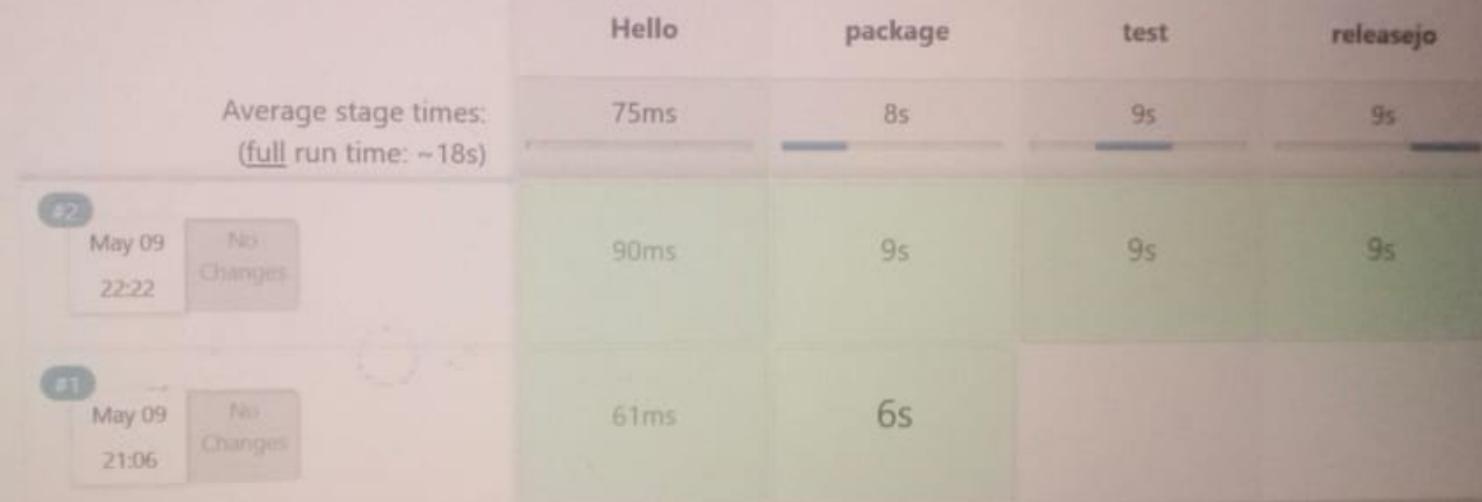
34°C  
Mostly clear

Search

codejob2



## Stage View



## Permalinks

- Last build (#1), 1 hr 15 min ago
- Last stable build (#1), 1 hr 15 min ago
- Last successful build (#1), 1 hr 15 min ago