

PROJECT

Banking and Finance Domain

- Write a code for banking application

VINAY P

The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer View:** On the left, it displays the project structure under the package `com.staragile.banking.banking`. The visible files include `Account.java`, `AccountApplication.java`, `AccountController.java`, `AccountDAORepository.java`, `AccountService.java`, and `MvcAccountController.java`.
- Code Editor View:** The main area shows the `AccountService.java` file. The code implements a service layer for managing accounts using a DAO repository.
- Toolbars and Status Bar:** The top bar contains various icons for file operations like Open, Save, and Print. The status bar at the bottom right shows "Activate Windows" and "Go to Settings to activate Windows".

```
1 package com.staragile.banking.banking;
2
3+ import java.util.ArrayList;[]
10
11 @Service
12 public class AccountService {
13
14     @Autowired
15     AccountDAORepository AccountDAORepository;
16     //https://github.com/vilasvarghese/microservices/blob/master/training/day1/SpringBoot/4CompanyServiceImplementation.txt
17     //continue from line : 115
18
19     public List<Account> getAccounts(){
20         /*return Arrays.asList(
21             new Policy("1", "Tousif", "Tousif address", "123456789"),
22         );*/
23         List<Account> accountList = new ArrayList<Account>();
24         AccountDAORepository.findAll().forEach(accountList::add);
25         return accountList;
26     }
27     public Optional<Account> getAccount(String id) []
28     {
29         return AccountDAORepository.findById(id);
30     }
31     public void addAccount(Account account) {
32         AccountDAORepository.save(account);
33     }
34     public void updateAccount(String id, Account account) {
35         AccountDAORepository.save(account);
36     }
37     public void viewAccount(String id, Account account) {
38         AccountDAORepository.save(account);
39     }
40     public void deleteAccount(String id) {
41         AccountDAORepository.deleteById(id);
42     }
43 }
44 }
45 }
```

eclipse-workspace - banking/src/main/java/com/staragile/banking/banking/Account.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Java EE <Web>

Package Explorer X Account.java AccountService.java

```
1 package com.staragile.banking.banking;
2
3 import java.util.Objects;
4
5 @Entity
6 public class Account {
7
8     @Id
9     String accountId;
10    String customerName;
11    String customerAddress;
12    String contactNumber;
13
14    @Override
15    public boolean equals(Object o) {
16        if (this == o) return true;
17        if (o == null || getClass() != o.getClass()) return false;
18        Account account = (Account) o;
19        return Objects.equals(getAccountId(), account.getAccountId()) &&
20               Objects.equals(getCustomerName(), account.getCustomerName()) &&
21               Objects.equals(getCustomerAddress(), account.getCustomerAddress()) &&
22               Objects.equals(getContactNumber(), account.getContactNumber());
23    }
24    @Override
25    public String toString() {
26        return "Account ID: " + getAccountId() +
27               ", Customer Name: " + getCustomerName() +
28               ", Customer Address: " + getCustomerAddress() +
29               ", Contact Number: " + getContactNumber();
30    }
31    @Override
32    public int hashCode() {
33        return Objects.hash(getAccountId(), getCustomerName(), getCustomerAddress(), getContactNumber());
34    }
35    public Account() {
36        super();
37    }
38    public Account(String accountId, String customerName, String customerAddress, String contactNumber) {
39        super();
40    }
41}
```

Activate Windows
Go to Settings to activate Windows.

Same as above.

eclipse-workspace - banking/src/main/java/com/staragile/banking/banking/Account.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X Account.java X AccountService.java

```
36     return Objects.hash(getAccountId(), getCustomerName(), getCustomerAddress(), getContactNumber());
37 }
38 public Account() {
39     super();
40 }
41 public Account(String AccountId, String customerName, String customerAddress, String contactNumber) {
42     super();
43     this.AccountId = AccountId;
44     this.customerName = customerName;
45     this.customerAddress = customerAddress;
46     this.contactNumber = contactNumber;
47 }
48 public String getAccountId() {
49     return AccountId;
50 }
51 public void setAccountId(String AccountId) {
52     this.AccountId = AccountId;
53 }
54 public String getCustomerName() {
55     return customerName;
56 }
57 public void setCustomerName(String customerName) {
58     this.customerName = customerName;
59 }
60 public String getCustomerAddress() {
61     return customerAddress;
62 }
63 public void setCustomerAddress(String customerAddress) {
64     this.customerAddress = customerAddress;
65 }
66 public String getContactNumber() {
67     return contactNumber;
68 }
69 public void setContactNumber(String contactNumber) {
70     this.contactNumber = contactNumber;
71 }
72 }
73 }
74 }
```

Activate Windows
Go to Settings to activate Windows.

Write necessary Junit testcase.

eclipse-workspace - banking/src/test/java/com/staragile/banking/banking/AccountTest.java - Eclipse IDE

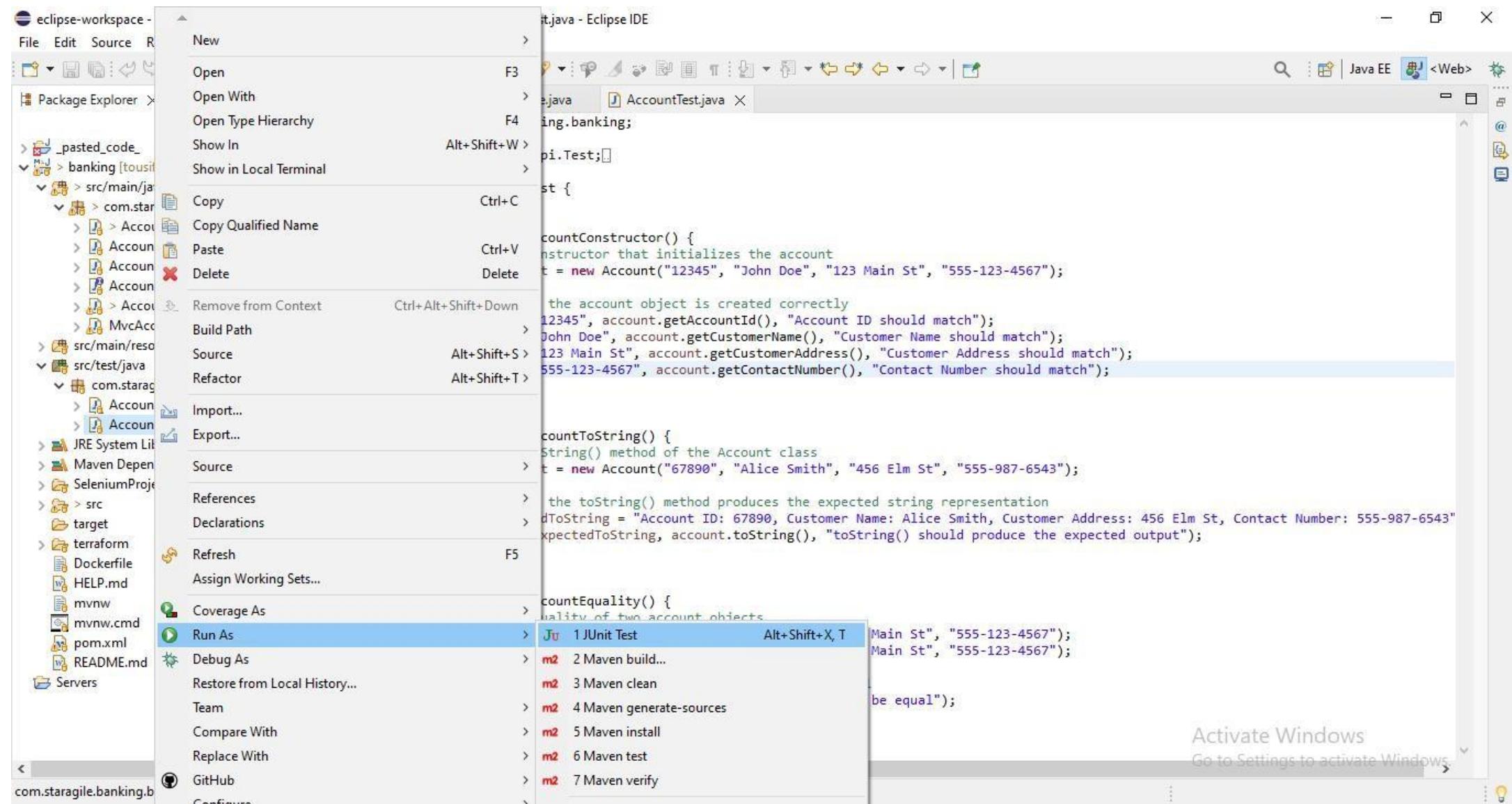
File Edit Source Refactor Navigate Project Run Window Help

Package Explorer X Account.java AccountService.java AccountTest.java

```
1 package com.staragile.banking.banking;
2
3 import org.junit.jupiter.api.Test;
4
5 public class AccountTest {
6
7     @Test
8     public void testAccountConstructor() {
9         // Test the constructor that initializes the account
10        Account account = new Account("12345", "John Doe", "123 Main St", "555-123-4567");
11
12        // Verify that the account object is created correctly
13        assertEquals("12345", account.getAccountId(), "Account ID should match");
14        assertEquals("John Doe", account.getCustomerName(), "Customer Name should match");
15        assertEquals("123 Main St", account.getCustomerAddress(), "Customer Address should match");
16        assertEquals("555-123-4567", account.getContactNumber(), "Contact Number should match");
17    }
18
19    @Test
20    public void testAccountToString() {
21        // Test the toString() method of the Account class
22        Account account = new Account("67890", "Alice Smith", "456 Elm St", "555-987-6543");
23
24        // Verify that the toString() method produces the expected string representation
25        String expectedToString = "Account ID: 67890, Customer Name: Alice Smith, Customer Address: 456 Elm St, Contact Number: 555-987-6543";
26        assertEquals(expectedToString, account.toString(), "toString() should produce the expected output");
27    }
28
29    @Test
30    public void testAccountEquality() {
31        // Test the equality of two account objects
32        Account account1 = new Account("12345", "John Doe", "123 Main St", "555-123-4567");
33        Account account2 = new Account("12345", "John Doe", "123 Main St", "555-123-4567");
34
35        // Verify that account1 and account2 are considered equal
36        assertEquals(account1, account2, "Account objects should be equal");
37    }
38}
39
```

Activate Windows
Go to Settings to activate Windows

Run the JUnit test.



Showing the Junit test result.

The screenshot shows the Eclipse IDE interface with the following details:

- Title Bar:** eclipse-workspace - banking/src/test/java/com/staragile/banking/banking/AccountTest.java - Eclipse IDE
- Menu Bar:** File Edit Source Refactor Navigate Search Project Run Window Help
- Toolbar:** Standard Eclipse toolbar icons.
- Left Sidebar:** Package Explorer (selected), JUnit (highlighted).
- Message Bar:** Finished after 0.693 seconds
- Statistics:** Runs: 3/3, Errors: 0, Failures: 0
- JUnit View:** AccountTest [Runner: JUnit 5] (0.281 s)
 - testAccountConstructor() (0.243 s)
 - testAccountToString() (0.031 s)
 - testAccountEquality() (0.003 s)
- Failure Trace:** None listed.
- Code Editor:** AccountTest.java (selected). The code contains three test methods: testAccountConstructor(), testAccountToString(), and testAccountEquality().

```
1 package com.staragile.banking.banking;
2
3 import org.junit.jupiter.api.Test;
4
5 public class AccountTest {
6
7     @Test
8     public void testAccountConstructor() {
9         // Test the constructor that initializes the account
10        Account account = new Account("12345", "John Doe", "123 Main St", "555-123-4567");
11
12        // Verify that the account object is created correctly
13        assertEquals("12345", account.getAccountId(), "Account ID should match");
14        assertEquals("John Doe", account.getCustomerName(), "Customer Name should match");
15        assertEquals("123 Main St", account.getCustomerAddress(), "Customer Address should match");
16        assertEquals("555-123-4567", account.getContactNumber(), "Contact Number should match")
17    }
18
19    @Test
20    public void testAccountToString() {
21        // Test the toString() method of the Account class
22        Account account = new Account("67890", "Alice Smith", "456 Elm St", "555-987-6543");
23    }
24}
```
- Bottom Bar:** Javadoc, Declaration, Console (selected). The console output is:

```
<terminated> AccountTest [JUnit] C:\Program Files\Java\jdk-20\bin\javaw.exe (05-Oct-2023, 8:18:46 pm - 8:18:50 pm) [pid: 4804]
```
- Activation Message:** Activate Windows. Go to Settings to activate Windows.

Push your code into your GitHub Repository.

```
$ git push origin master
Enumerating objects: 96, done.
Counting objects: 100% (96/96), done.
Delta compression using up to 4 threads
Compressing objects: 100% (76/76), done.
Writing objects: 100% (96/96), 70.71 KiB | 1.29 MiB/s, done.
Total 96 (delta 7), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (7/7), done.
To https://github.com/tousifshah8827/tousif-banking-project-staragile.git
 * [new branch]      master -> master
```

Write terraform file to create aws instance.

The image shows a Windows desktop environment with four Notepad windows open and a terminal window in the background.

- Terminal Window:** Shows a command-line interface with the following commands:

```
krish@DESKTOP-QUE7TEM MINGW64 ~ % MINGW64:/c/Users/krish/Downloads/test/tousif-ban
$ ls
abc.sh  compute.tf  get-dock
krish@DESKTOP-QUE7TEM MINGW64 ~ %
```
- Notepad Window (main - Notepad):** Contains Terraform provider configuration:

```
provider "aws" {
    region          = "${var.region}"
    shared_credentials_files = ["~/.aws/credentials"]
}
```
- Notepad Window (*compute - Notepad):** Contains Terraform resource configuration for an AWS instance:

```
resource "aws_instance" "jenkins-instance" {
    ami           = var.instance_ami      #ubuntu ami for ohio region.
    instance_type = var.instance_type
    key_name      = var.keyname
    #user_data = file("install_jenkins.sh")
    associate_public_ip_address = true
    tags = {
        Name = "tousif instance"
    }

    ebs_block_device {
        device_name = "/dev/sda1"
        volume_size = 20
    }
}
```
- Notepad Window (variables - Notepad):** Contains Terraform variable declarations:

```
variable "region" {
    default = "us-east-1"
}
variable "instance_type" {
}
variable "instance_ami" {
}
variable "keyname" {
    default = "ansiblekey"
}
```
- Notepad Window (terraform - Notepad):** Contains a Terraform configuration block:

```
region = "us-east-1"
instance_type = "t2.medium"
instance_ami = "ami-0430580de6244e02e"
keyname = "ansiblekey"
```

Create terraform local repo.

```
$ terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v5.19.0...
- Installed hashicorp/aws v5.19.0 (signed by HashiCorp)

Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
```

Terraform apply to create aws instance.

```
$ terraform apply

Terraform used the selected providers to generate the following execution
plan. Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

# aws_instance.tousif-instance will be created
+ resource "aws_instance" "tousif-instance" {
    + ami                                = "ami-0430580de6244e02e"
    + arn                                = (known after apply)
    + associate_public_ip_address        = true
    + availability_zone                  = (known after apply)
    + cpu_core_count                     = (known after apply)
    + cpu_threads_per_core              = (known after apply)
    + disable_api_stop                  = (known after apply)
    + disable_api_termination           = (known after apply)
    + ebs_optimized                      = (known after apply)
    + get_password_data                 = false
    + host_id                            = (known after apply)
    + host_resource_group_arn            = (known after apply)
    + iam_instance_profile               = (known after apply)
    + id                                 = (known after apply)
    + instance_initiated_shutdown_behavior = (known after apply)
    + instance.lifecycle                = (known after apply)
    + instance.state                    = (known after apply)
    + instance.type                     = "t2.medium"
    + ipv6_address_count                = (known after apply)
    + ipv6_addresses                     = (known after apply)
    + key_name                           = "ansiblekey"
    + monitoring                         = (known after apply)
    + outpost_arn                        = (known after apply)
    + password_data                      = (known after apply)
    + placement_group                   = (known after apply)
    + placement_partition_number          = (known after apply)
```

Activate Windows
Go to Settings to activate Windows.

Same as above.

```
MINGW64:/c/Users/krish/Downloads/test/tousif-banking-project-staragile/terraform
+ user_data_base64          = (known after apply)
+ user_data_replace_on_change = false
+ vpc_security_group_ids     = (known after apply)

+ ebs_block_device {
    + delete_on_termination = true
    + device_name          = "/dev/sda1"
    + encrypted             = (known after apply)
    + iops                  = (known after apply)
    + kms_key_id            = (known after apply)
    + snapshot_id           = (known after apply)
    + throughput             = (known after apply)
    + volume_id              = (known after apply)
    + volume_size            = 20
    + volume_type             = (known after apply)
  }
}

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

aws_instance.tousif-instance: Creating...
aws_instance.tousif-instance: Still creating... [10s elapsed]
aws_instance.tousif-instance: Still creating... [20s elapsed]
aws_instance.tousif-instance: Still creating... [30s elapsed]
aws_instance.tousif-instance: Still creating... [40s elapsed]
aws_instance.tousif-instance: Creation complete after 47s [id=i-000959e2cb95d1e42]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
```

Activate Windows
Go to Settings to activate Windows

Instance create.

Screenshot of the AWS EC2 Instances page showing a single instance named "Jenkins-Instance".

The instance details are as follows:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Jenkins-Instance	i-012d5a1fd3d00d5b4	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b

The instance summary shows the following information:

Instance ID	Public IPv4 address	Private IPv4 addresses
i-012d5a1fd3d00d5b4 (project 1)	52.15.200.103 open address	172.31.30.23
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-52-15-200-103.us-east-

Navigation pane on the left:

- EC2 Dashboard
- EC2 Global View
- Events
- Instances
 - Instances
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances
 - Dedicated Hosts
 - Capacity Reservations
- Images
 - AMIs
 - AMI Catalog
- Elastic Block Store
 - Volumes
 - Snapshots

Bottom navigation bar:

- CloudShell
- Feedback
- Type here to search
- File
- File Explorer
- Mail
- Microsoft Edge
- Google Chrome
- Word
- PowerPoint
- Excel
- OneDrive
- File History
- Task View
- System tray icons (Battery, Network, Volume, etc.)
- 20°C
- ENG
- 24-10-2023
- 23:34

Logged in instance.

```
$ ssh -i "ansiblekey.pem" ubuntu@ec2-18-223-152-24.us-east-2.compute.amazonaws.com
The authenticity of host 'ec2-18-223-152-24.us-east-2.compute.amazonaws.com (18.223.152.24)' can't be established.
ED25519 key fingerprint is SHA256:c5zw8okJGKZL7IU8q08o7q5luc2XQV0U1voFJRElyT8.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
warning: Permanently added 'ec2-18-223-152-24.us-east-2.compute.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1036-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Thu Oct  5 15:37:57 UTC 2023

System load:  0.18           Processes:          115
Usage of /:   8.3% of 19.20GB  Users logged in:    0
Memory usage: 6%              IPv4 address for eth0: 172.31.26.8
Swap usage:   0%

Expanded security maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-26-8:~$
```

Activate Windows
Go to Settings to activate Windows.

Git - For version control for tracking changes in the code files

Maven – For Continuous Build

Jenkins - For continuous integration and continuous deployment

Docker - For deploying containerized applications

root@ip-172-31-26-8:/home/ubuntu

```
root@ip-172-31-26-8:/home/ubuntu# git --version
git version 2.25.1
root@ip-172-31-26-8:/home/ubuntu# mvn --version
Apache Maven 3.6.3
Maven home: /usr/share/maven
Java version: 11.0.20.1, vendor: Ubuntu, runtime: /usr/lib/jvm/java-11-openjdk-amd64
Default locale: en, platform encoding: UTF-8
OS name: "linux", version: "5.15.0-1036-aws", arch: "amd64", family: "unix"
root@ip-172-31-26-8:/home/ubuntu# systemctl status docker
● docker.service - Docker Application Container Engine
  Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
  Active: active (running) since Thu 2023-10-05 15:42:47 UTC; 6min ago
TriggeredBy: ● docker.socket
  Docs: https://docs.docker.com
 Main PID: 33896 (dockerd)
   Tasks: 9
  Memory: 24.6M
    CGroup: /system.slice/docker.service
           └─33896 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Oct 05 15:42:46 ip-172-31-26-8 systemd[1]: Starting Docker Application Container Engine...
Oct 05 15:42:46 ip-172-31-26-8 dockerd[33896]: time="2023-10-05T15:42:46.357187833Z" level=info msg="Starting up"
Oct 05 15:42:46 ip-172-31-26-8 dockerd[33896]: time="2023-10-05T15:42:46.358270506Z" level=info msg="detected 127.0.0.53 nameserver, assuming systemd-resolved, so using resolv.conf: /run/sys...
Oct 05 15:42:47 ip-172-31-26-8 dockerd[33896]: time="2023-10-05T15:42:47.277190870Z" level=info msg="Loading containers: start."
Oct 05 15:42:47 ip-172-31-26-8 dockerd[33896]: time="2023-10-05T15:42:47.718929193Z" level=info msg="Loading containers: done."
Oct 05 15:42:47 ip-172-31-26-8 dockerd[33896]: time="2023-10-05T15:42:47.747480407Z" level=info msg="Docker daemon" commit=1a79695 graphdriver=overlay2 version=24.0.6
Oct 05 15:42:47 ip-172-31-26-8 dockerd[33896]: time="2023-10-05T15:42:47.747618349Z" level=info msg="Daemon has completed initialization"
Oct 05 15:42:47 ip-172-31-26-8 dockerd[33896]: time="2023-10-05T15:42:47.808316534Z" level=info msg="API listen on /run/docker.sock"
Oct 05 15:42:47 ip-172-31-26-8 systemd[1]: Started Docker Application Container Engine.
```

```
root@ip-172-31-26-8:/home/ubuntu# systemctl status jenkins
```

```
● jenkins.service - Jenkins Continuous Integration Server
  Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
  Active: active (running) since Thu 2023-10-05 15:44:31 UTC; 4min 20s ago
    Main PID: 36123 (java)
      Tasks: 42 (limit: 4686)
     Memory: 1.1G
      CGroup: /system.slice/jenkins.service
             └─36123 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080

Oct 05 15:44:15 ip-172-31-26-8 jenkins[36123]: ****
Oct 05 15:44:15 ip-172-31-26-8 jenkins[36123]: ****
Oct 05 15:44:15 ip-172-31-26-8 jenkins[36123]: WARNING: An illegal reflective access operation has occurred
Oct 05 15:44:15 ip-172-31-26-8 jenkins[36123]: WARNING: Illegal reflective access by org.codehaus.groovy.vmplugin.v7.Java7$1 (file:/var/cache/jenkins/war/WEB-INF/lib/groovy-all-2.4.21.jar) to field
Oct 05 15:44:15 ip-172-31-26-8 jenkins[36123]: WARNING: Please consider reporting this to the maintainers of org.codehaus.groovy.vmplugin.v7.Java7$1
Oct 05 15:44:15 ip-172-31-26-8 jenkins[36123]: WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
Oct 05 15:44:15 ip-172-31-26-8 jenkins[36123]: WARNING: All illegal access operations will be denied in a future release
Oct 05 15:44:31 ip-172-31-26-8 jenkins[36123]: 2023-10-05 15:44:31.160+0000 [id=31]      INFO  jenkins.InitReactorRunner$1#onAttained: Completed initialization
Oct 05 15:44:31 ip-172-31-26-8 jenkins[36123]: 2023-10-05 15:44:31.179+0000 [id=22]      INFO  hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
Oct 05 15:44:31 ip-172-31-26-8 systemd[1]: Started Jenkins Continuous Integration Server.
```

```
root@ip-172-31-26-8:/home/ubuntu#
```

Activate Windows

Go to Settings to activate Windows.

Open jenkins.

The screenshot shows the Jenkins dashboard at the URL <http://16.223.132.24:8080>. The top navigation bar includes links for 'Dashboard', 'New Item', 'People', 'Build History', 'Manage Jenkins', and 'My Views'. A search bar and a user profile for 'vinay' are also present. The main content area features a large 'Welcome to Jenkins!' heading, a sub-headline 'Start building your software project', and several call-to-action buttons: 'Create a job', 'Set up a distributed build', 'Set up an agent', 'Configure a cloud', and 'Learn more about distributed builds'. A note at the bottom right says 'Activate Windows' with a link to 'Settings'.

Dashboard >

New Item

People

Build History

Manage Jenkins

My Views

Not secure 16.223.132.24:8080

Search (CTRL + K)

vinay log out

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Create a job

Set up a distributed build

Set up an agent

Configure a cloud

Learn more about distributed builds

Activate Windows

Go to Settings to activate Windows.

Create freestyle project.

← → C Not secure | 18.223.152.24:8080/view/all/newJob

 Jenkins

Search (CTRL+K) [?](#)   vinay [log out](#)

Dashboard > All >

Enter an item name

baking-project » Required field

 **Freestyle project**
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

 **Pipeline**
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

 **Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

OK

Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a

Activate Windows
Go to Settings to activate Windows.

Given the github path where is my source code.

The screenshot shows a Jenkins configuration interface for a project named "baking-project". The left sidebar lists several configuration tabs: General (selected), Source Code Management, Build Triggers, Build Environment, Build Steps, and Post-build Actions. The "Source Code Management" tab is currently active, displaying GitHub project settings. Under "GitHub project", the "Project url" field contains the value <https://github.com/tousifshah8827/tousif-banking-project-staragile.git>. Other options like "Discard old builds", "Parameterized build", "Throttle builds", and "Execute concurrent builds if necessary" are also present but not selected. At the bottom, there are "Save" and "Apply" buttons. A watermark for "Activate Windows" is visible in the bottom right corner.

Not secure | 18.223.152.24:8080/job/baking-project/configure

Dashboard > baking-project > Configuration

Configure

Plain text [Preview](#)

Discard old builds ?

GitHub project

Project url ?

`https://github.com/tousifshah8827/tousif-banking-project-staragile.git`

Advanced ▾

This project is parameterized ?

Throttle builds ?

Execute concurrent builds if necessary ?

Advanced ▾

[Save](#) [Apply](#)

Activate Windows
Go to Settings to activate Windows.

Same as above.

The screenshot shows the Jenkins configuration interface for a job named 'baking-project'. The left sidebar lists several configuration sections: General, Source Code Management (selected), Build Triggers, Build Environment, Build Steps, and Post-build Actions. The main panel is titled 'Configure' and contains the following fields:

- Repository URL**: A text input field containing the URL `https://github.com/tousifshah8827/tousif-banking-project-staragile.git`.
- Credentials**: A dropdown menu showing '- none -'.
- Add**: A button to add new credentials.
- Advanced**: A dropdown menu.
- Add Repository**: A button to add more repositories.
- Branches to build**: A dropdown menu showing 'Branch Specifier (blank for 'any')' with the value `*/master`.

At the bottom of the configuration panel are two buttons: 'Save' and 'Apply'. A watermark for 'Activate Windows' is visible in the bottom right corner.

Given the command to create war/jar file and build docker image .

The screenshot shows a Jenkins configuration page for a project named "baking-project". The left sidebar lists several configuration sections: General, Source Code Management, Build Triggers, Build Environment (which is selected), Build Steps, and Post-build Actions. The main content area is titled "Configure" and shows various build step options. One step, "Execute shell", is expanded, displaying a command-line script:

```
mvn clean install
docker build -t tousif-banking-app-cicd:latest .
if (docker ps -a | grep 'tousif-banking-app-cicd')
then
    docker stop tousif-banking-app-cicd
```

At the bottom of the configuration page are "Save" and "Apply" buttons.

Activate Windows
Go to Settings to activate Windows.

Given the command to run docker container and docker login.

The screenshot shows a Jenkins configuration page for a job named "baking-project". The left sidebar lists several sections: General, Source Code Management, Build Triggers, Build Environment (which is selected), Build Steps, and Post-build Actions. The main area is titled "Configure" and shows various configuration options. Under "Build Steps", there is a section titled "Execute shell" containing the following command:

```
docker rm -f tousif-banking-app-cicd  
fi  
docker run -d -p 8999:8080 --name tousif-banking-app-cicd tousif-banking-app-cicd  
mvn test  
docker login -u tousifshah8827 -p <your password>
```

At the bottom of the page are "Save" and "Apply" buttons. A watermark for "Activate Windows" is visible in the bottom right corner.

Given the command to create container to image and push the image in docker hub.

The screenshot shows a Jenkins configuration page for a project named "baking-project". The "Build Environment" tab is selected. Under the "Build Steps" section, there is a step titled "Execute shell" with the following command:

```
docker run -d -p 8999:8080 --name tousif-banking-app-cicd tousif-banking-app-cicd  
mvn test  
docker login -u tousifshah8827 -p <your password>  
docker commit tousif-banking-app-cicd tousifshah8827/tousif-banking-app-cicd:latest  
docker push tousifshah8827/tousif-banking-app-cicd:latest
```

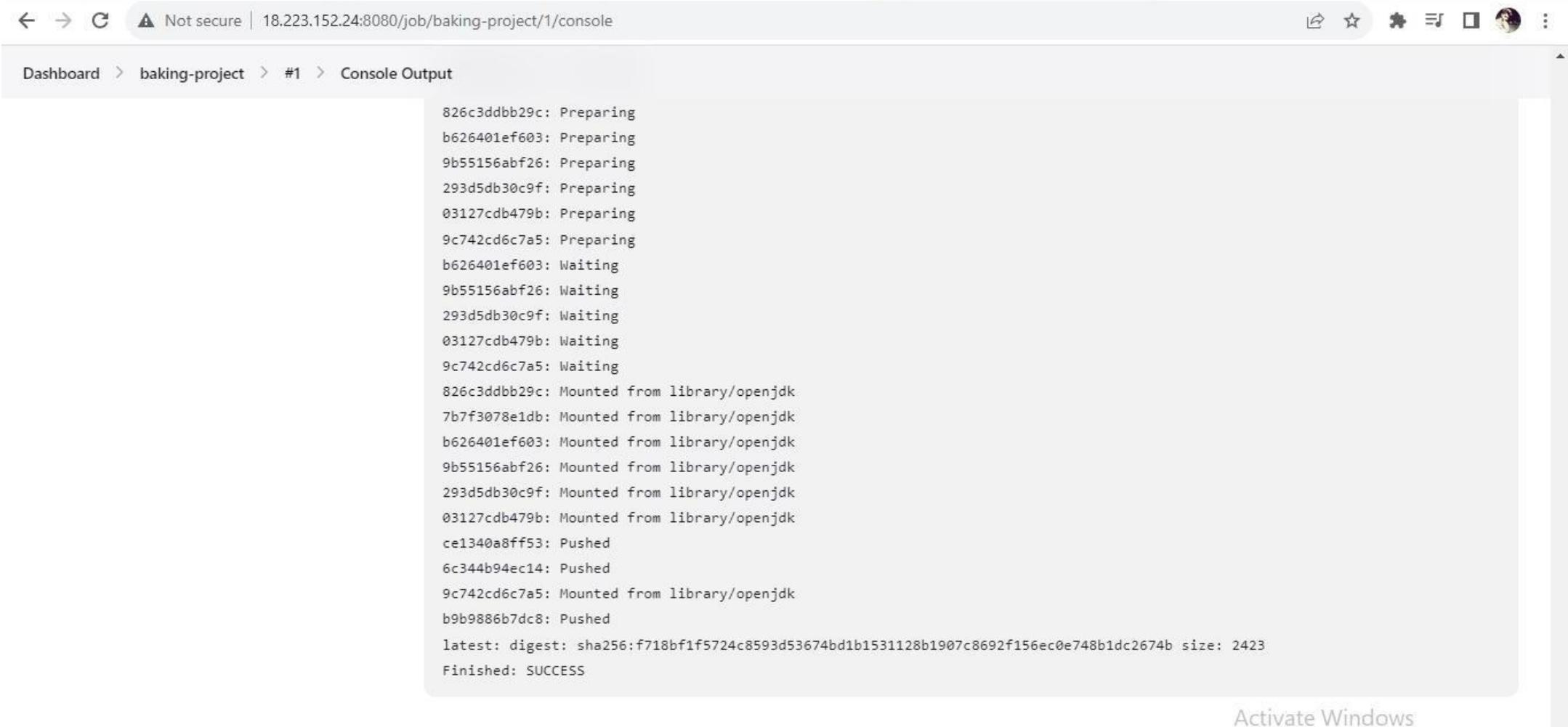
At the bottom of the screen, there is a watermark that says "Activate Windows Go to Settings to activate Windows."

Now build the project ans showing result.

The screenshot shows a Jenkins interface with a "Console Output" section. The left sidebar has links for "Status", "Changes", "Console Output" (which is selected), and "Edit Build Information". The main area displays the build log:

```
Started by user Tousif
Running on SYSTEM
Building in workspace /var/lib/jenkins/workspace/baking-project
The recommended git tool is: MCNT
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/tousifshah8827/tousif-banking-project-stargile.git
> git init /var/lib/jenkins/workspace/baking-project # timeout=10
Fetching upstream changes from https://github.com/tousifshah8827/tousif-banking-project-stargile.git
> git --version # timeout=10
> git - version 'git version 2.25.1'
> git fetch --tags --force --progress -- https://github.com/tousifshah8827/tousif-banking-project-stargile.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/tousifshah8827/tousif-banking-project-stargile.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git new-parse refs/remotes/origin/master{commit} # timeout=10
Checking out Revision 18A7B6E0C571A7D1A9570B52C4D4911171 (refs/remotes/origin/master)
> git config core.sparsecheckout # timeout=10
```

Same as above.]



A screenshot of a web browser displaying the Jenkins console output for a specific build step. The URL in the address bar is "Not secure | 18.223.152.24:8080/job/baking-project/1/console". The page title is "Dashboard > baking-project > #1 > Console Output". The console output itself is a list of log entries:

```
826c3ddbb29c: Preparing
b626401ef603: Preparing
9b55156abf26: Preparing
293d5db30c9f: Preparing
03127cdb479b: Preparing
9c742cd6c7a5: Preparing
b626401ef603: Waiting
9b55156abf26: Waiting
293d5db30c9f: Waiting
03127cdb479b: Waiting
9c742cd6c7a5: Waiting
826c3ddbb29c: Mounted from library/openjdk
7b7f3078e1db: Mounted from library/openjdk
b626401ef603: Mounted from library/openjdk
9b55156abf26: Mounted from library/openjdk
293d5db30c9f: Mounted from library/openjdk
03127cdb479b: Mounted from library/openjdk
ce1340a8ff53: Pushed
6c344b94ec14: Pushed
9c742cd6c7a5: Mounted from library/openjdk
b9b9886b7dc8: Pushed
latest: digest: sha256:f718bf1f5724c8593d53674bd1b1531128b1907c8692f156ec0e748b1dc2674b size: 2423
Finished: SUCCESS
```

At the bottom right of the browser window, there is a watermark that reads "Activate Windows" and "Go to Settings to activate Windows."

WhatsApp | vilasv... | Google | Vinay | Connect | GitHub | DevOps | YouTube (795) | Instant | Down | + | - | X

us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#Instances:

AWS Services Search [Alt+S] Instances (2/2) Info [Find instance by attribute or tag (case-sensitive)] Actions Launch instances ▾

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Jenkins-Instance	i-012d5a1fd3d00d5b4	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b
Ansible-Slave	i-078e3255fccf43b2a	Pending	t2.micro	-	No alarms	us-east-2b

Instances: i-012d5a1fd3d00d5b4 (Jenkins-Instance), i-078e3255fccf43b2a (Ansible-Slave)

Monitoring

Alarm recommendations 1h 3h 12h 1d 3d 1w UTC timezone C Add to dashboard

CPU utilization (%) Status check failed (Status check failed (Status check failed (Status check failed (

CloudShell Feedback © 2023, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Type here to search

High... ENG 00:30 25-10-2023 1

Windows File Explorer Mail Microsoft Edge Chrome Microsoft Word Microsoft Excel Microsoft Powerpoint Microsoft OneDrive

root@ip-172-31-26-8:/home/ubuntu

```
root@ip-172-31-26-8:/home/ubuntu# ansible --version
ansible [core 2.12.10]
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/root/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  ansible collection location = /root/.ansible/collections:/usr/share/ansible/collections
  executable location = /usr/bin/ansible
  python version = 3.8.10 (default, May 26 2023, 14:05:08) [GCC 9.4.0]
  jinja version = 2.10.1
  libyaml = True
root@ip-172-31-26-8:/home/ubuntu# |
```

Activate Windows
Go to Settings to activate Windows.

Same as above.

```
root@ip-172-31-26-8: /home/ubuntu
GNU nano 4.8                               /etc/ansible/hosts                         Modified
# - A hostname/ip can be a member of multiple groups
# Ex 1: Ungrouped hosts, specify before any group headers:
## green.example.com
## blue.example.com
## 192.168.100.1
## 192.168.100.10

# Ex 2: A collection of hosts belonging to the 'webservers' group:
## [webservers]
## alpha.example.org
## beta.example.org
## 192.168.1.100
## 192.168.1.110

# If you have multiple hosts following a pattern, you can specify
# them like this:
## www[001:006].example.com

# Ex 3: A collection of database servers in the 'dbservers' group:
## [dbservers]
##
## db01.intranet.mydomain.net
## db02.intranet.mydomain.net
## 10.25.1.56
## 10.25.1.57

# Here's another example of host ranges, this time there are no
# leading 0s:
## db-[99:101]-node.example.com
[tousif]
172.31.34.32]

Activate Windows
Go to Settings to activate Windows.

^G Get Help      ^O Write Out     ^W Where Is      ^K Cut Text      ^J Justify      ^C Cur Pos      M-U Undo
^X Exit          ^R Read File     ^\ Replace       ^U Paste Text    ^I To Spell    ^L Go To Line   M-E Redo
M-A Mark Text    M-J To Bracket M-6 Copy Text   ^O Where Was
```

Write yml file code to run ansible slave.

```
ansible@ip-172-31-26-8:~$ ansible-playbook tousifbanking.yml
PLAY [Configure and Deploy Spring Boot App] ****
TASK [Gathering Facts] ****
ok: [172.31.34.32]

TASK [Install Python and pip] ****
changed: [172.31.34.32]

TASK [Install Docker python] ****
ok: [172.31.34.32]

TASK [deploy tousif banking project] ****
changed: [172.31.34.32]

PLAY RECAP ****
172.31.34.32 : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
ansible@ip-172-31-26-8:~$
```

Activate Windows
Go to Settings to activate Windows.

Not secure | 16.221.199.128:8081/getallaccount

Welcome to Vinay Banking Web Application

Enter your ID:

Enter your name:

Enter your address:

Enter your contact:

[Create Account](#) [Update Account](#) [Delete Account](#)

Account ID	Customer Name	Customer Address	Contact Number
------------	---------------	------------------	----------------

Activate Windows
Go to Settings to activate Windows.

/createAccount (HTTP Method : POST) (Request Body : JSON)

The screenshot shows the Postman application interface. On the left, the sidebar includes 'My Workspace' (with 'New' and 'Import' buttons), 'Collections' (empty), 'Environments' (listing 'localhost:8080/policy'), 'History' (empty), and a pinned item 'API Documentation #reference'. The main workspace shows a POST request to 'http://18.221.199.128:8081/account'. The 'Body' tab is selected, displaying a JSON payload:

```
1  {
2    "accountId": "1",
3    "customerName": "staragile",
4    "customerAddress": "star address",
5    "contactNumber": "123456789"
6 }
```

The response section shows a status of 200 OK, time 846 ms, size 184 B. The response body contains the message: "Successfully added!!".

At the bottom, there are status indicators: Online (checked), Find and replace, Console, Postbot, Runner, Start Proxy, Cookies, Trash, and Help.

Showing result.

Not secure | 18.221.199.128:8081/getallaccount

Welcome to Vinay Banking Web Application

Enter your ID:

Enter your name:

Enter your address:

Enter your contact:

[Create Account](#) [Update Account](#) [Delete Account](#)

Account ID	Customer Name	Customer Address	Contact Number
------------	---------------	------------------	----------------

Activate Windows
Go to Settings to activate Windows.

The screenshot shows a web browser window with the title "Welcome to Vinay Banking Web Application". Inside the window, there is a form with four input fields labeled "Enter your ID:", "Enter your name:", "Enter your address:", and "Enter your contact:". Below the form are three blue buttons: "Create Account", "Update Account", and "Delete Account". At the bottom of the page, there is a table with four columns: "Account ID", "Customer Name", "Customer Address", and "Contact Number". A watermark at the bottom right corner reads "Activate Windows Go to Settings to activate Windows."

/updateAccount/{account no.} (HTTP Method : PUT) (Request Body : JSON)

The screenshot shows the Postman application interface. On the left, there's a sidebar with 'My Workspace' containing collections like 'API Documentation #reference', environments like 'localhost:8080/policy', and history. The main area shows a request configuration for a PUT method to 'http://18.221.199.128:8081/account/1'. The 'Body' tab is selected, displaying a JSON payload:

```
1 {"accountId": "1",  
2   "customerName": "agile",  
3   "customerAddress": " address",  
4   "contactNumber": "123456789"  
5 }  
6
```

Below the request, the response status is shown as 200 OK with a message: '1 Updated successfully'. At the bottom, there are various status indicators and links for Postbot, Runner, Start Proxy, Cookies, and Trash.

Showing result.

Net secure | 16.221.199.128:8081/getallaccount

Welcome to Vinay Banking Web Application

Enter your ID:

Enter your name:

Enter your address:

Enter your contact:

Create Account Update Account Delete Account

Account ID	Customer Name	Customer Address	Contact Number
------------	---------------	------------------	----------------

Activate Windows
Go to Settings to activate Windows.

/viewPolicy/{account no.} (HTTP Method : GET) (No Request Body)

The screenshot shows the Postman application interface. In the top navigation bar, the tabs "Home", "Workspaces", "API Network", and "Explore" are visible. A search bar "Search Postman" is located at the top right. On the left sidebar, under "My Workspace", there are sections for "Collections", "Environments", and "History". The main workspace area displays a collection named "http://18.221.199.128:8081/account/1". This collection contains a single GET request to "http://18.221.199.128:8081/account/1". The "Body" tab is selected, showing a JSON payload:

```
1 {"accountId": "1",  
2   "customerName": "agile",  
3   "customerAddress": " address",  
4   "contactNumber": "123456789"  
5 }  
6
```

Below the request, the response details are shown: Status: 200 OK, Time: 291 ms, Size: 261 B. The response body is identical to the request body, indicating a successful fetch of the account data.

At the bottom of the interface, there are various status indicators and links: "Online", "Find and replace", "Console", "Postbot", "Runner", "Start Proxy", "Cookies", "Trash", and a help icon.

./deletePolicy/{account no.} (HTTP Method : DELETE) (No Request Body)

The screenshot shows the Postman application interface. On the left, there's a sidebar with 'My Workspace' containing collections like 'API Documentation #reference', environments like 'localhost:8080/policy', and history. The main area shows a request configuration for a DELETE method at <http://18.221.199.128:8081/account/1>. The 'Body' tab is selected, showing an empty JSON object. Below the request, the response details show a status of 200 OK with the message 'Updated successfully'.

```
1
2   "accountId": "1",
3   "customerName": "agile",
4   "customerAddress": " address",
5   "contactNumber": "123456789"
```

Body Cookies Headers (5) Test Results
Pretty Raw Preview Visualize Text
1 Updated successfully

Status: 200 OK Time: 289 ms Size: 184 B Save as Example

Activate Windows
Go to Settings to activate Windows.

Showing result.]

Net secure | 16.221.199.128:8081/getallaccount

Welcome to Vinay Banking Web Application

Enter your ID:

Enter your name:

Enter your address:

Enter your contact:

Create Account Update Account Delete Account

Account ID	Customer Name	Customer Address	Contact Number
------------	---------------	------------------	----------------

Activate Windows
Go to Settings to activate Windows.

Not secure | 18.221.199.128:8081/h2-console/login.do?jsessionid=994b35137314e317b4b192da23bdef97

Auto commit | Max rows: 1000 | Auto complete Off | Auto select On

jdbc:h2:mem:testdb

+ ACCOUNT

+ INFORMATION_SCHEMA

+ Users

H2 1.4.200 (2019-10-14)

Run Run Selected Auto complete Clear SQL statement:

```
SELECT * FROM ACCOUNT
```

SELECT * FROM ACCOUNT;

ACCOUNT_ID	CONTACT_NUMBER	CUSTOMER_ADDRESS	CUSTOMER_NAME
99	987654321	benglore	startagile
22	123456789	address	star

(2 rows, 7 ms)

Edit

Activate Windows
Go to Settings to activate Windows.

eclipse-workspace - SeleniumProject/src/test/java/SeleniumProject/SeleniumProject/BankingTest.java - Eclipse IDE

File Edit Source Refactor Navigate Project Run Window Help

Package Explorer X Account.java AccountService.java AccountTest.java BankingTest.java X

```
1 package SeleniumProject.SeleniumProject;
2
3 import java.util.concurrent.TimeUnit;
4
5 public class BankingTest extends TestCase{
6
7     //download chrom driver from https://googlechromelabs.github.io/chrome-for-testing/
8     public String baseUrl = "http://18.221.199.128:8081/hello";
9     String driverPath = "C:\\\\chromedriver-win64\\\\chromedriver-win64\\\\chromedriver.exe";
10
11     public WebDriver driver;
12
13     @Test
14     Run | Debug
15     public void testGoogle() {
16         // set the system property for Chrome driver
17         System.out.println("inside testGoogle");
18         System.setProperty("webdriver.chrome.driver", driverPath);
19         System.out.println("inside testGoogle "+driverPath);
20         // Create driver object for CHROME browser
21         driver = new ChromeDriver();
22         driver.manage().timeouts().implicitlyWait(20, TimeUnit.SECONDS);
23         driver.manage().window().maximize();
24         driver.get(baseUrl);
25
26         // get the current URL of the page
27         String URL= driver.getCurrentUrl();
28         System.out.print(URL);
29
30         //get the title of the page
31         String title = driver.getTitle();
32         System.out.println(title);
33
34
35
36
37
38
39
40
41
42
43
44
45 }
```

@ Javadoc Declaration Console X

No consoles to display at this time.

Activate Windows Go to Settings to activate Windows.

Writable Smart Insert 20:56:668

Same as above.

eclipse-workspace - SeleniumProject/src/test/java/SeleniumProject/SeleniumProject/BankingTest.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer X Account.java AccountService.java AccountTest.java BankingTest.java X

```
1 //get the title of the page
2 String title = driver.getTitle();
3 System.out.println(title);
4 waitForMe(2000);
5 // Find the search input element
6 //WebElement searchInput = driver.findElement(By.name("q"));
7 WebElement e = driver.findElement(By.xpath("//*[text()='Welcome to Tousif Banking website']"));
8 System.out.println("element with text(): [" + e.getText() + "]");
9 Assert.assertEquals("Welcome to Tousif Banking website", e.getText());
10 driver.quit();
11 waitForMe(1000);
12 // Enter search text
13 //searchInput.sendKeys(
14 // Close the browser
15 //driver.quit();
16 }
17 public void waitForMe(int time) {
18     // Wait for a few seconds to see the results
19     try {
20         Thread.sleep(time);
21     } catch (InterruptedException e) {
22         e.printStackTrace();
23     }
24 }
25 @BeforeTest
26 public void beforeTest() {
27     System.out.println("before test");
28 }
29 @AfterTest
30 public void afterTest() {
31     //driver.quit();
32     System.out.println("after test");
33 }
34 }
```

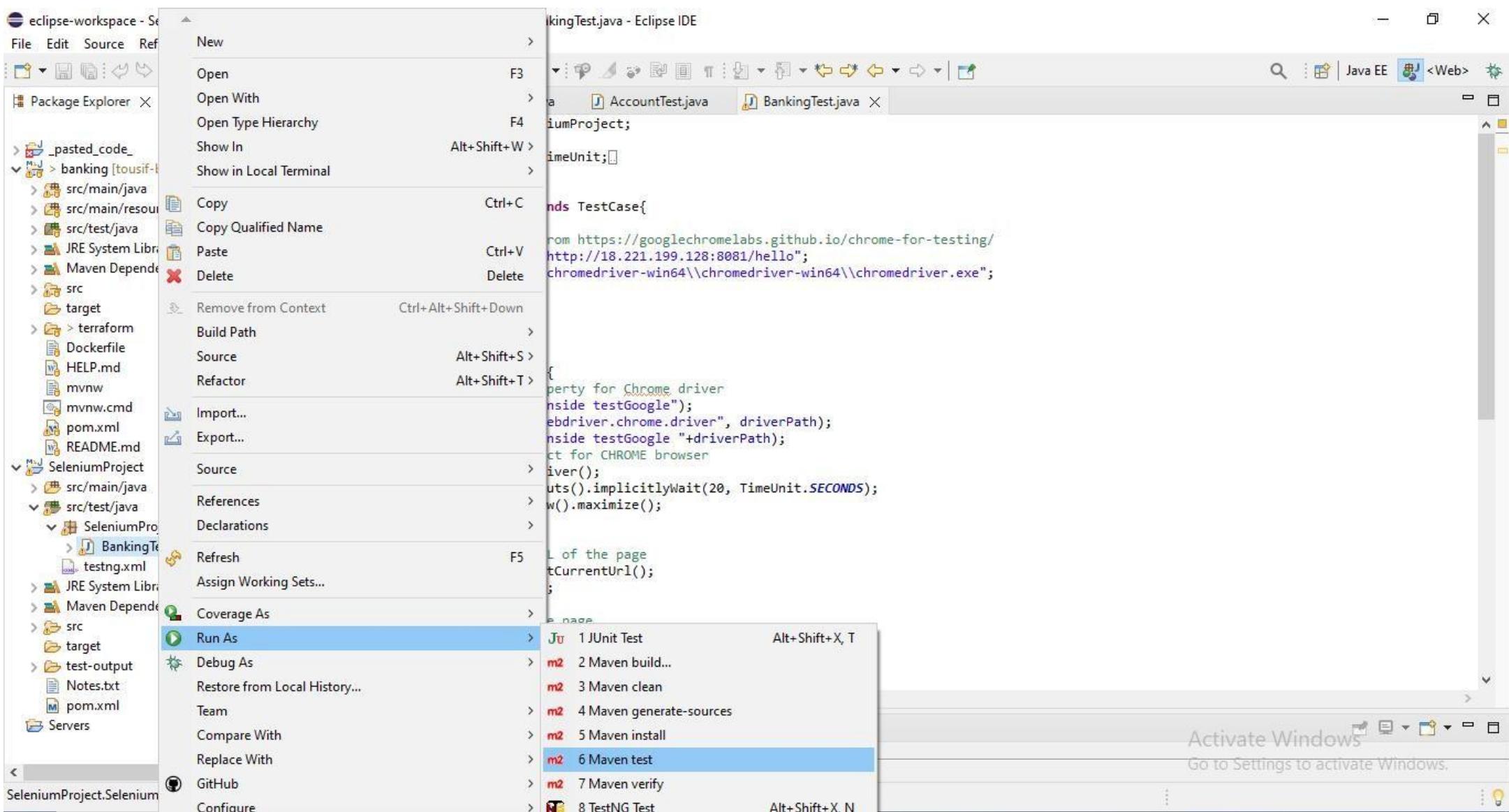
@ Javadoc Declaration Console X

No consoles to display at this time.

Activate Windows Go to Settings to activate Windows.

Writable Smart Insert 64:6:2290

Run selenium test.



eclipse-workspace - SeleniumProject/src/test/java/SeleniumProject/SeleniumProject/BankingTest.java - Eclipse IDE

File Edit Source Refactor Navigate Project Run Window Help

Package Explorer X Account.java AccountService.java AccountTest.java BankingTest.java X

```
1 package SeleniumProject.SeleniumProject;
2
3+ import java.util.concurrent.TimeUnit;
16
Run All
```

@ Javadoc Declaration Console X

```
<terminated> C:\Program Files\Java\jdk-20\bin\javaw.exe (05-Oct-2023, 10:35:30 pm) [pid: 8980]
at org.testng.SuiteRunnerWorker.runsuite(SuiteRunnerWorker.java:53)
at org.testng.SuiteRunnerWorker.run(SuiteRunnerWorker.java:96)
at org.testng.TestNG.runSuitesSequentially(TestNG.java:1218)
at org.testng.TestNG.runSuitesLocally(TestNG.java:1140)
at org.testng.TestNG.runSuites(TestNG.java:1069)
at org.testng.TestNG.run(TestNG.java:1037)
at org.apache.maven.surefire.testng.TestNGExecutor.run(TestNGExecutor.java:284)
at org.apache.maven.surefire.testng.TestNGXmlTestSuite.execute(TestNGXmlTestSuite.java:75)
at org.apache.maven.surefire.testng.TestNGProvider.invoke(TestNGProvider.java:119)
at org.apache.maven.surefire.booter.ForkedBooter.runSuitesInProcess(ForkedBooter.java:428)
at org.apache.maven.surefire.booter.ForkedBooter.execute(ForkedBooter.java:162)
at org.apache.maven.surefire.booter.ForkedBooter.run(ForkedBooter.java:562)
at org.apache.maven.surefire.booter.ForkedBooter.main(ForkedBooter.java:548)
```

Oct 05, 2023 10:35:47 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
after test
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 8.124 s - in TestSuite
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 17.298 s
[INFO] Finished at: 2023-10-05T22:35:52+05:30
[INFO] -----

Activate Windows
Go to Settings to activate Windows.

TestNG Report

C:/Users/krish/Downloads/SeleniumProject/target/surefire-reports/emailable-report.html

Test	# Passed	# Skipped	# Retried	# Failed	Time (ms)	Included Groups	Excluded Groups
Suite							
TestCases	1	0	0	0	7,118		
Class		Method	Start	Time (ms)			
Suite							
TestCases — passed							
SeleniumProject	SeleniumProject	Banking Test	testGoogle	1696525545345	7002		

TestCases

SeleniumProject.SeleniumProject.BankingTest#testGoogle

[back to summary](#)

Activate Windows
Go to Settings to activate Windows.

Showing result.

TestNG reports

File | C:/Users/krish/Downloads/SeleniumProject/target/surefire-reports/index.html#

1 suite

Switch Retro Theme

All suites

Suite

C:\Users\krish\Downloads\SeleniumProject\src\main\java\testng.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
<suite name="Suite" guice-stage="DEVELOPMENT" verbose="0">
  <test thread-count="5" name="TestCases" verbose="0">
    <classes>
      <class name="SeleniumProject.SeleniumProject.BankingTest"/>
    </classes>
  </test> <!-- TestCases -->
</suite> <!-- Suite -->
```

Info

- C:\Users\krish\Downloads\SeleniumProject\src\main\java\testng.xml
- 1 test
- 0 groups
- Times
- Reporter output
- Ignored methods
- Chronological view

Results

- 1 method, 1 passed
- Passed methods (show)

Activate Windows
Go to Settings to activate Windows.

```
root@ip-172-31-26-8:/home/ubuntu# systemctl status prometheus
● prometheus.service - Prometheus Monitoring
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2023-10-05 16:34:13 UTC; 2min 10s ago
     Main PID: 40192 (prometheus)
        Tasks: 8 (limit: 4686)
       Memory: 19.0M
      CGroup: /system.slice/prometheus.service
              └─40192 /usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --storage.tsdb.path=/var/lib/prometheus/ >

Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.624Z caller=head.go:479 component=tsdb msg="Repla>
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.624Z caller=head.go:513 component=tsdb msg="On-di>
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.624Z caller=head.go:519 component=tsdb msg="Repla>
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.624Z caller=head.go:590 component=tsdb msg="WAL s>
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.624Z caller=head.go:596 component=tsdb msg="WAL r>
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.625Z caller=main.go:849 fs_type=EXT4_SUPER_MAGIC
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.625Z caller=main.go:852 msg="TSDB started"
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.625Z caller=main.go:979 msg="Loading configuratio>
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.629Z caller=main.go:1016 msg="Completed loading o>
Oct 05 16:34:13 ip-172-31-26-8 prometheus[40192]: level=info ts=2023-10-05T16:34:13.629Z caller=main.go:794 msg="Server is ready to r>
Lines 1-19/19 (END)
```

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root@ip-172-31-26-8:/home/ubuntu

```
GNU nano 4.8                               /etc/prometheus/prometheus.yml
evaluation_interval: 15s # Evaluate rules every 15 seconds. The default is every 1 minute.
# scrape_timeout is set to the global default (10s).

# Alertmanager configuration
alerting:
  alertmanagers:
    - static_configs:
      - targets:
        # - alertmanager:9093

# Load rules once and periodically evaluate them according to the global 'evaluation_interval'.
rule_files:
  # - "first_rules.yml"
  # - "second_rules.yml"

# A scrape configuration containing exactly one endpoint to scrape:
# Here it's Prometheus itself.
scrape_configs:
  # The job name is added as a label `job=<job_name>` to any timeseries scraped from this config.
  - job_name: "prometheus"

    # metrics_path defaults to '/metrics'
    # scheme defaults to 'http'.

    static_configs:
      - targets: ["172.31.34.32:9090"]

  - job_name: 'node_exporter'
    static_configs:
      - targets: ['172.31.34.32:9100']

  - job_name: 'prod-server-Cadvisor'
    static_configs:
      - targets: ['172.31.34.32:9323']
```

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M-A Mark Text
M-6 Copy Text

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos M-U Undo
^X Exit ^R Read File ^L Replace ^U Paste Text ^T To Spell ^_ Go To Line M-E Redo

Showing result monitor the running container.

The screenshot shows the Prometheus web interface. At the top, there is a navigation bar with links for Prometheus, Alerts, Graph, Status, Help, and Classic UI. On the far right of the navigation bar are several icons: gear, moon, circle, and a user profile. Below the navigation bar, there are several configuration checkboxes: "Use local time" (unchecked), "Enable query history" (unchecked), "Enable autocomplete" (checked), "Use experimental editor" (checked), "Enable highlighting" (checked), and "Enable linter" (checked). A search bar contains the query `engine_daemon_container_states_containers{state="running"}`. To the right of the search bar is an "Execute" button. Below the search bar, there are two tabs: "Table" (selected) and "Graph". Under the "Table" tab, there is a "Evaluation time" selector with arrows for navigating between time points. The main results table displays one row of data: `engine_daemon_container_states_containers{instance="172.31.34.32:9323", job="prod-server-Cadvisor", state="running"}`, with a value of 1. In the bottom right corner of the results area, there is a "Remove Panel" link. At the very bottom left, there is a blue "Add Panel" button. The footer of the page includes a watermark: "Activate Windows" and "Go to Settings to activate Windows."

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Showing running container.

A screenshot of a web browser window displaying a list of metrics from a Docker daemon endpoint at `18.221.199.128:9323/metrics`. The metrics are listed in a plain text format, showing various engine_daemon and engine_daemon_container metrics. A yellow box highlights the first few lines of the output, specifically the `engine_daemon_container_actions_seconds_bucket` and `engine_daemon_container_states_containers` sections. The browser interface includes a search bar with the word "container", a page number "1/85", and standard navigation buttons.

```
engine_daemon_container_actions_seconds_bucket{action="delete",le="1"} 1
engine_daemon_container_actions_seconds_bucket{action="delete",le="2.5"} 1
engine_daemon_container_actions_seconds_bucket{action="delete",le="5"} 1
engine_daemon_container_actions_seconds_bucket{action="delete",le="10"} 1
engine_daemon_container_actions_seconds_bucket{action="delete",le="+Inf"} 1
engine_daemon_container_actions_seconds_sum{action="delete"} 0
engine_daemon_container_actions_seconds_count{action="delete"} 1
engine_daemon_container_actions_seconds_bucket{action="start",le="0.005"} 1
engine_daemon_container_actions_seconds_bucket{action="start",le="0.01"} 1
engine_daemon_container_actions_seconds_bucket{action="start",le="0.025"} 1
engine_daemon_container_actions_seconds_bucket{action="start",le="0.05"} 1
engine_daemon_container_actions_seconds_bucket{action="start",le="0.1"} 1
engine_daemon_container_actions_seconds_bucket{action="start",le="0.25"} 1
engine_daemon_container_actions_seconds_bucket{action="start",le="0.5"} 2
engine_daemon_container_actions_seconds_bucket{action="start",le="1"} 2
engine_daemon_container_actions_seconds_bucket{action="start",le="2.5"} 2
engine_daemon_container_actions_seconds_bucket{action="start",le="5"} 2
engine_daemon_container_actions_seconds_bucket{action="start",le="10"} 2
engine_daemon_container_actions_seconds_bucket{action="start",le="+Inf"} 2
engine_daemon_container_actions_seconds_sum{action="start"} 0.411091701
engine_daemon_container_actions_seconds_count{action="start"} 2
# HELP engine_daemon_container_states_containers The count of containers in various states
# TYPE engine_daemon_container_states_containers gauge
engine_daemon_container_states_containers{state="paused"} 0
engine_daemon_container_states_containers{state="running"} 1
engine_daemon_container_states_containers{state="stopped"} 0
# HELP engine_daemon_engine_cpus_cpus The number of cpus that the host system of the engine has
# TYPE engine_daemon_engine_cpus_cpus gauge
engine_daemon_engine_cpus_cpus 2
# HELP engine_daemon_engine_info The information related to the engine and the OS it is running on
# TYPE engine_daemon_engine_info gauge
engine_daemon_engine_info{architecture="x86_64",commit="24.0.5-0ubuntu1~20.04.1",daemon_id="9de0b886-5cbf-481f-ab67-4a518bcb822b",graphdriver="overlay2",kernel="5.15.0-1036-aws",os="Ubuntu 20.04.6 LTS",os_type="linux",os_version="20.04",version="24.0.5"} 1
# HELP engine_daemon_engine_memory_bytes The number of bytes of memory that the host system of the engine has
# TYPE engine_daemon_engine_memory_bytes gauge
engine_daemon_engine_memory_bytes 4.064247808e+09
# HELP engine_daemon_events_subscribers_total The number of current subscribers to events
# TYPE engine_daemon_events_subscribers_total gauge
engine_daemon_events_subscribers_total 0
# HELP engine_daemon_events_total The number of events logged
# TYPE engine_daemon_events_total counter
engine_daemon_events_total 2
# HELP engine_daemon_health_check_start_duration_seconds The number of seconds it takes to prepare to run health checks
```

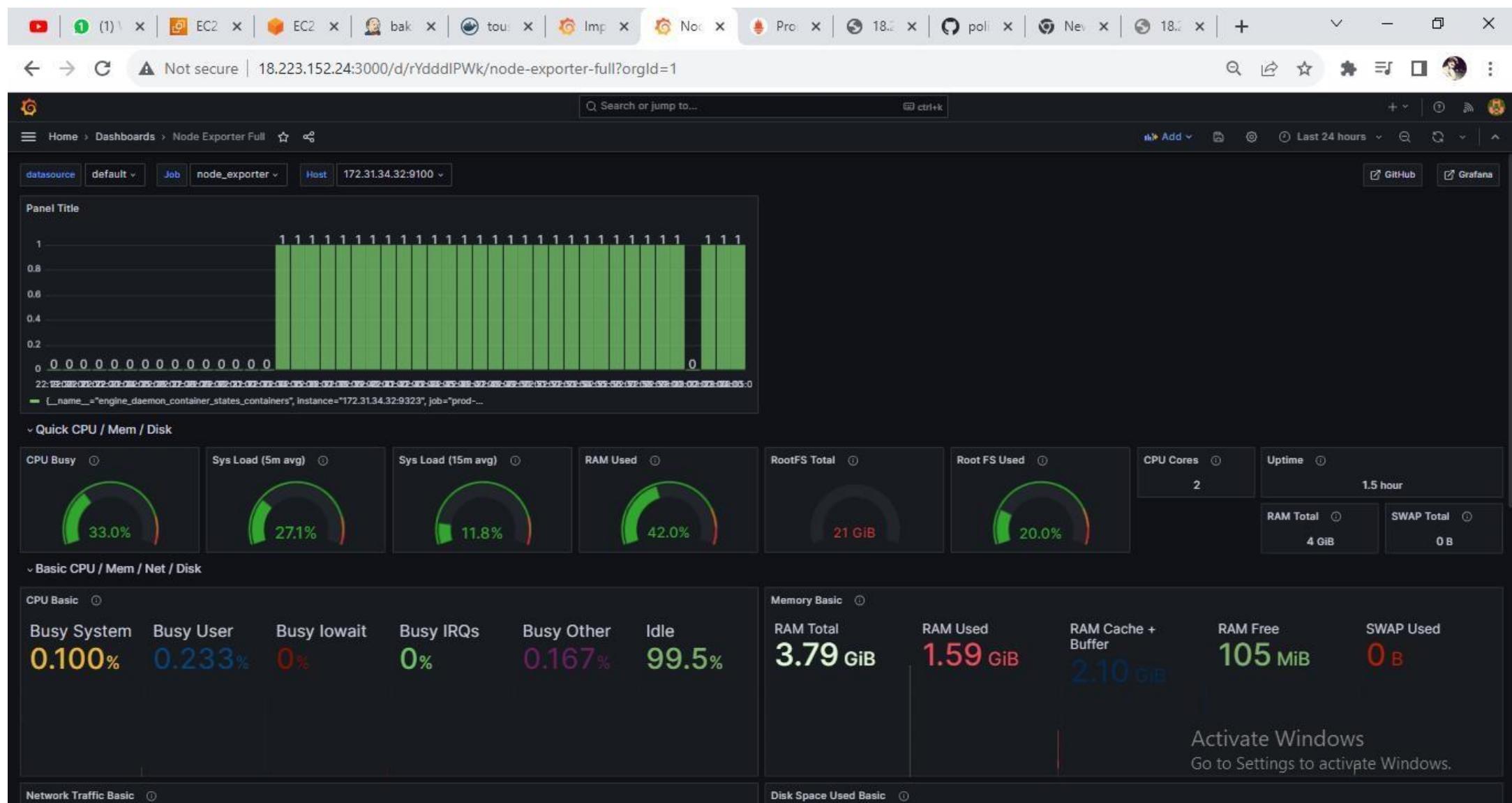
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Setup grafana.

```
root@ip-172-31-26-8:/home/ubuntu# systemctl status grafana-server
● grafana-server.service - Grafana instance
   Loaded: loaded (/lib/systemd/system/grafana-server.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2023-10-05 16:38:54 UTC; 14min ago
     Docs: http://docs.grafana.org
 Main PID: 41882 (grafana)
    Tasks: 12 (limit: 4686)
   Memory: 71.6M
      CGroup: /system.slice/grafana-server.service
              └─41882 /usr/share/grafana/bin/grafana server --config=/etc/grafana/grafana.ini --pidfile=/run/grafana/grafana-server.pid

Oct 05 16:39:02 ip-172-31-26-8 grafana[41882]: logger=grafana.update.checker t=2023-10-05T16:39:02.703107542Z level=info msg="Update >
Oct 05 16:39:02 ip-172-31-26-8 grafana[41882]: logger=plugins.update.checker t=2023-10-05T16:39:02.739148903Z level=info msg="Update >
Oct 05 16:40:57 ip-172-31-26-8 grafana[41882]: logger=infra.usagestats t=2023-10-05T16:40:57.561395031Z level=info msg="Usage stats a >
Oct 05 16:49:02 ip-172-31-26-8 grafana[41882]: logger=cleanup t=2023-10-05T16:49:02.547438722Z level=info msg="Completed cleanup jobs >
Oct 05 16:49:02 ip-172-31-26-8 grafana[41882]: logger=grafana.update.checker t=2023-10-05T16:49:02.716956643Z level=info msg="Update >
Oct 05 16:49:02 ip-172-31-26-8 grafana[41882]: logger=plugins.update.checker t=2023-10-05T16:49:02.808075274Z level=info msg="Update >
Oct 05 16:50:40 ip-172-31-26-8 systemd[1]: /lib/systemd/system/grafana-server.service:42: Unknown key name 'ProtectProc' in section ' >
Oct 05 16:50:41 ip-172-31-26-8 systemd[1]: /lib/systemd/system/grafana-server.service:42: Unknown key name 'ProtectProc' in section ' >
Oct 05 16:50:41 ip-172-31-26-8 systemd[1]: /lib/systemd/system/grafana-server.service:42: Unknown key name 'ProtectProc' in section ' >
Oct 05 16:51:58 ip-172-31-26-8 grafana[41882]: logger=context userId=0 orgId=0 uname= t=2023-10-05T16:51:58.241207128Z level=info msg>
Lines 1-20/20 (END)
```

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Go to Settings to activate Windows.



THANK YOU

STAR AGILE