

CLOUD COMPUTING PROJECT

3 DEPLOYMENT OF WEB APPLICATION USING AWS

Team Members:

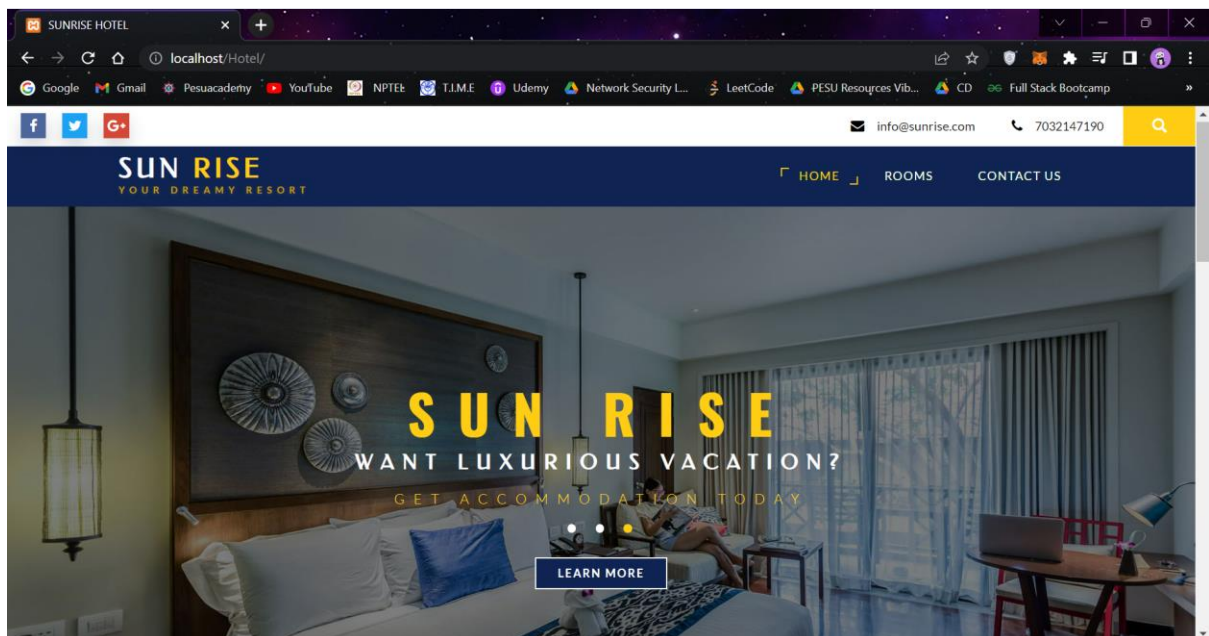
Harshitha C

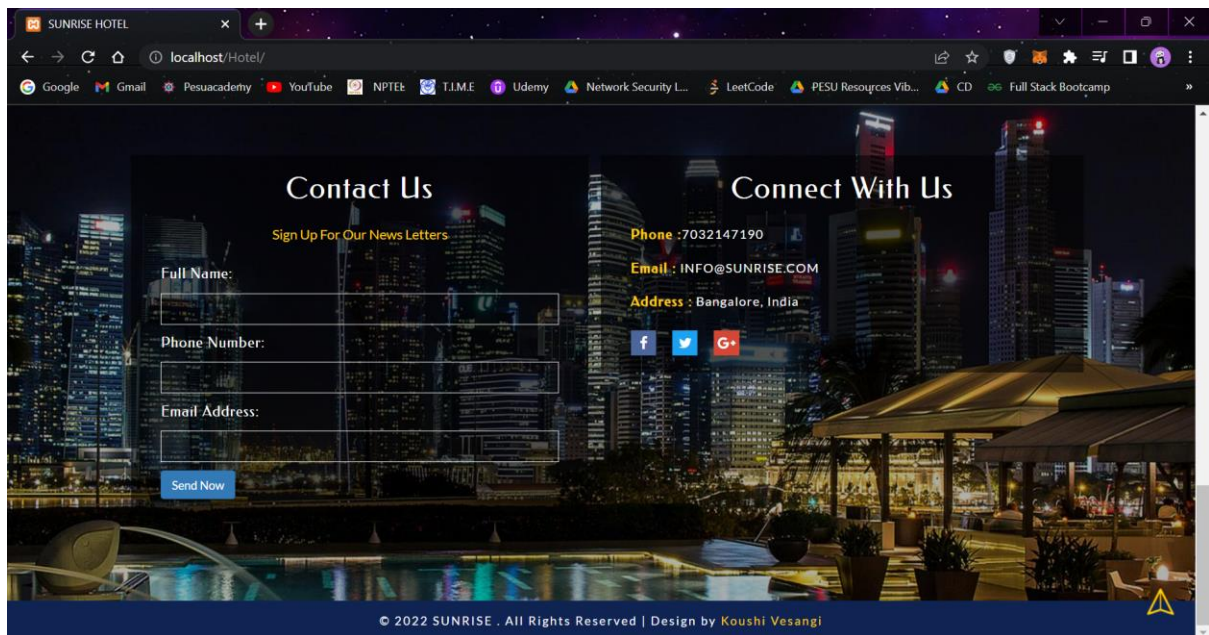
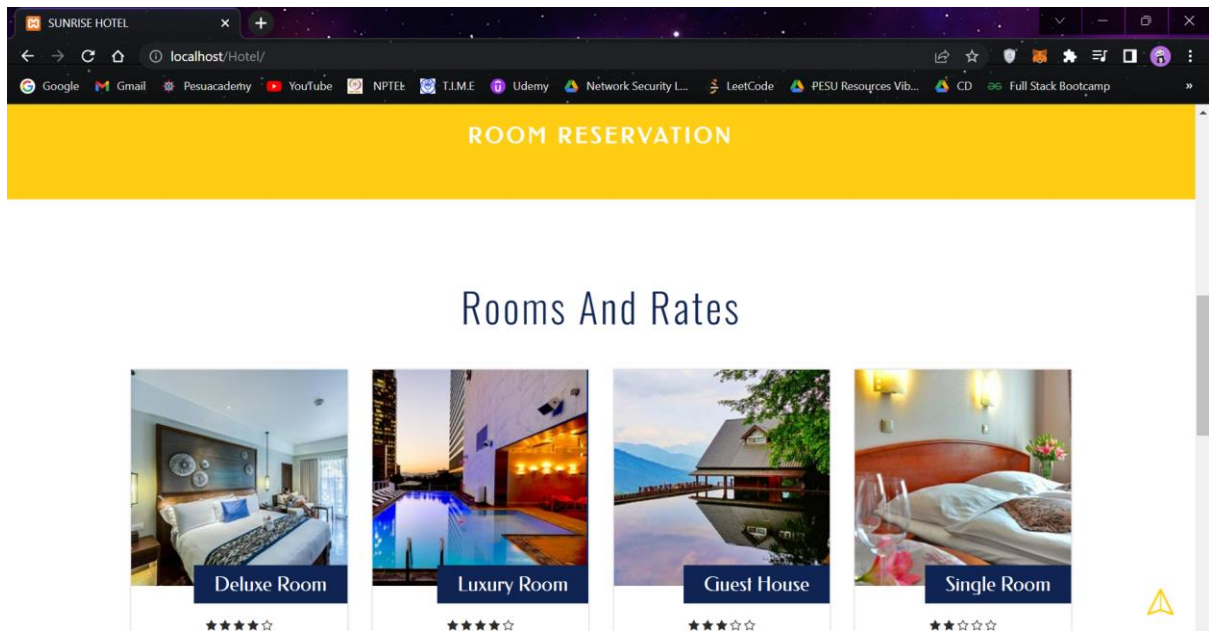
Josmin Rose

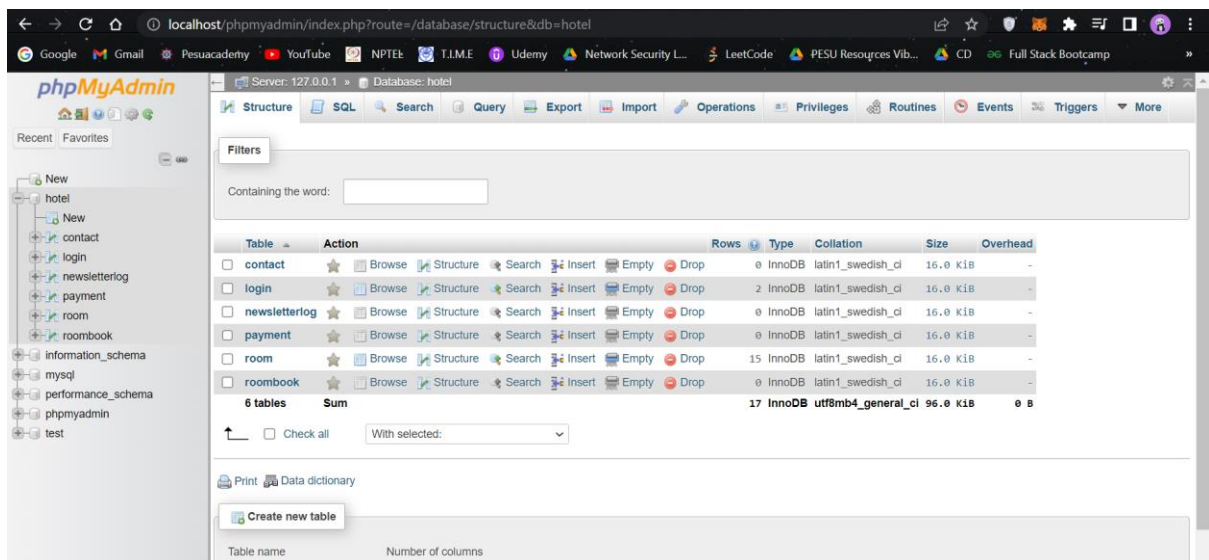
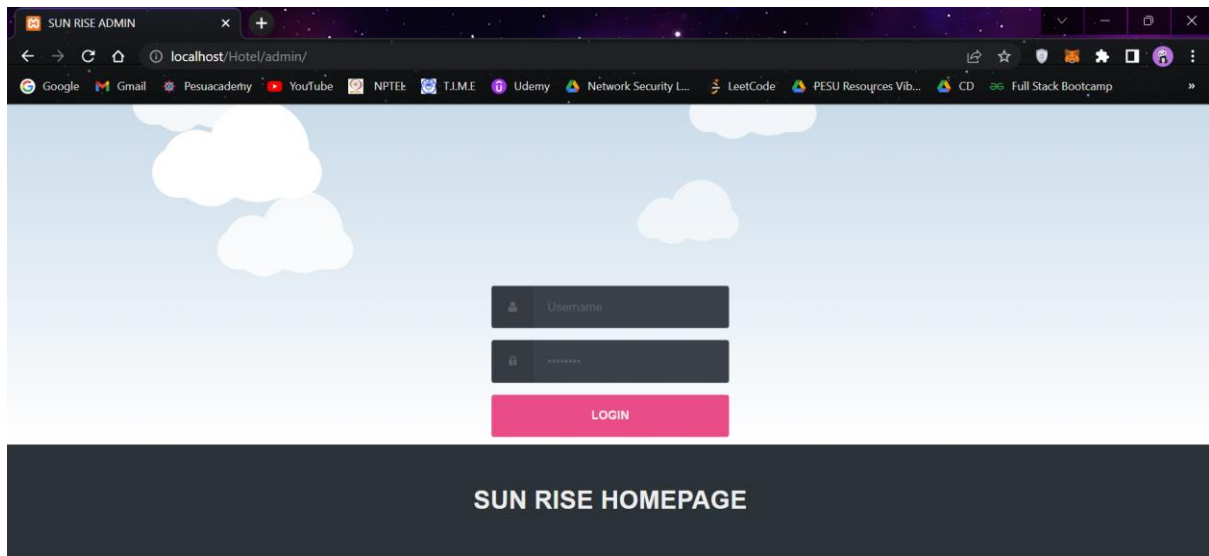
Koushi Vesangi

Maneesh Nand Reddy Kondaiahgari

TASK-1 CRUD WEB APPLICATION







TASK-2 Deploying the database in AWS.

us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#databases:

Amazon RDS

Dashboard
Databases
Query Editor
Performance insights
Snapshots
Exports in Amazon S3
Automated backups
Reserved instances
Proxies
Subnet groups
Parameter groups
Option groups
Custom engine versions
Events

RDS > Databases

Consider creating a Blue/Green Deployment to minimize downtime during upgrades
You may want to consider using Amazon RDS Blue/Green Deployments and minimize your downtime during upgrades. A Blue/Green Deployment provides a staging environment for changes to production databases. [RDS User Guide](#) [Aurora User Guide](#)

Databases

Group resources

Filter by databases

	DB identifier	Role	Engine	Region & AZ	Size	Status
<input type="radio"/>	aws-simplified	Instance	MySQL Community	us-east-1a	db.t3.micro	Available
<input type="radio"/>	koushi	Instance	MySQL Community	us-east-1a	db.t3.micro	Available

MySQL Workbench

awsSimplified

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

sys

Administration Schemas

Information

No object selected

Query 1

Limit to 1000 rows

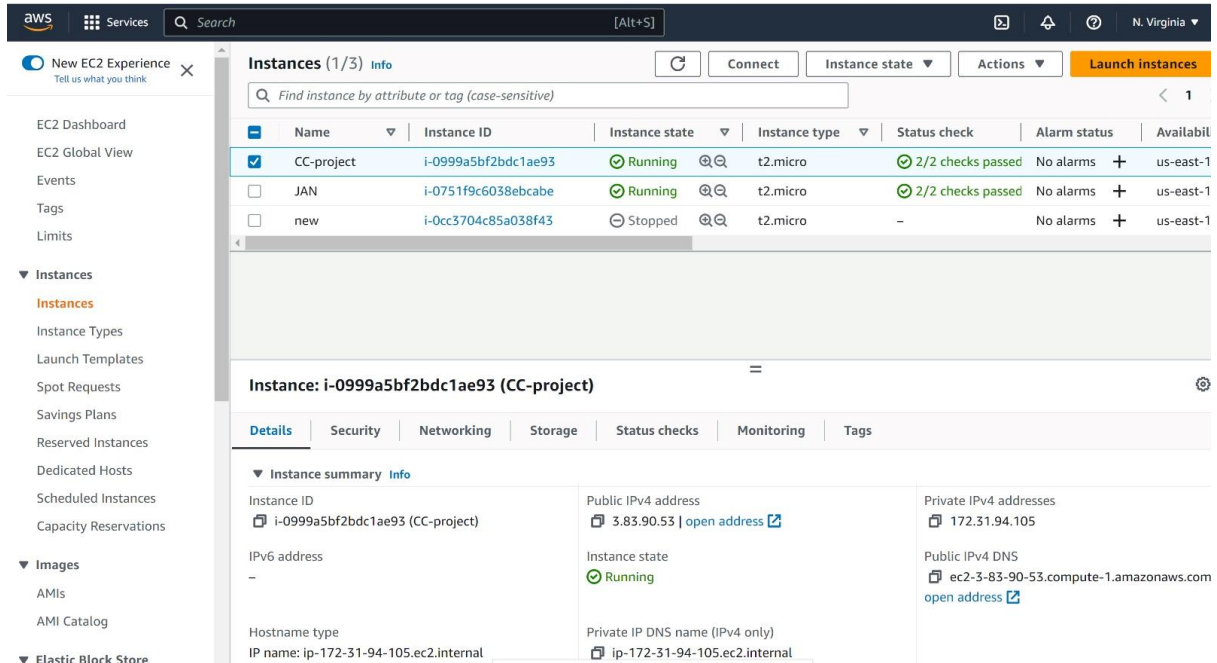
```
58  
59  
60  
61 -- Table structure for table `newsletterlog`  
62 --  
63  
64 CREATE TABLE IF NOT EXISTS `newsletterlog` (  
65   `id` int(10) unsigned NOT NULL,  
66   `title` varchar(52) DEFAULT NULL,  
67   `subject` varchar(100) DEFAULT NULL,  
68   `news` text  
69 ) ENGINE=InnoDB DEFAULT CHARSET=latin1 AUTO_INCREMENT=1 ;  
70  
71  
72  
73 -- Table structure for table `payment`  
74 --  
75  
76  
77 CREATE TABLE IF NOT EXISTS `payment` (  
78   `id` int(11) DEFAULT NULL,  
79   `title` varchar(5) DEFAULT NULL,  
80   `fname` varchar(30) DEFAULT NULL,  
81   `lname` varchar(30) DEFAULT NULL,  
82   `troom` varchar(30) DEFAULT NULL,  
83   `tbed` varchar(30) DEFAULT NULL,  
84   `nroom` int(11) DEFAULT NULL,
```

Output

Action Output

#	Time	Action	Message
---	------	--------	---------

TASK-3 Deploying Web Application in EC2 instance.

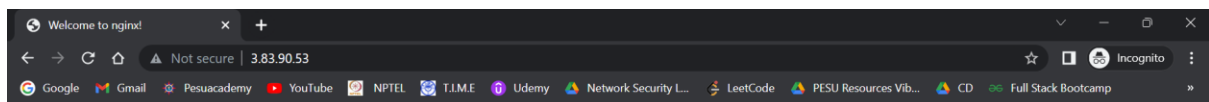


The screenshot shows the AWS Management Console interface. On the left is a navigation menu with options like EC2 Dashboard, EC2 Global View, Events, Tags, Limits, and a section for EC2 instances including Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, and Capacity Reservations. The main area is titled 'Instances (1/3) Info' and contains a table of EC2 instances. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability. Three instances are listed: 'CC-project' (Running), 'JAN' (Running), and 'new' (Stopped). Below the table, the details for the 'CC-project' instance (ID: i-0999a5bf2bdc1ae93) are shown, including its public IPv4 address (3.83.90.53), private IPv4 address (172.31.94.105), and public IPv4 DNS name (ec2-3-83-90-53.compute-1.amazonaws.com).

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
CC-project	i-0999a5bf2bdc1ae93	Running	t2.micro	2/2 checks passed	No alarms	us-east-1
JAN	i-0751f9c6038ebcabe	Running	t2.micro	2/2 checks passed	No alarms	us-east-1
new	i-0cc3704c85a038f43	Stopped	t2.micro	-	No alarms	us-east-1

Instance: i-0999a5bf2bdc1ae93 (CC-project)

Details	Security	Networking	Storage	Status checks	Monitoring	Tags
Instance summary Info						
Instance ID	Public IPv4 address		Private IPv4 addresses			
i-0999a5bf2bdc1ae93 (CC-project)	3.83.90.53 open address		172.31.94.105			
IPv6 address	Instance state		Public IPv4 DNS			
-	Running		ec2-3-83-90-53.compute-1.amazonaws.com open address			
Hostname type	Private IP DNS name (IPv4 only)					
IP name: ip-172-31-94-105.ec2.internal	ip-172-31-94-105.ec2.internal					



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.


```

root@ip-172-31-94-105: /home/ubuntu
nginx depends on nginx-core (>= 1.18.0-0ubuntu1.4) | nginx-full (>= 1.18.0-0ubuntu1.4) | nginx-light (>= 1.18.0-0ubuntu1.4) | nginx-extras (>= 1.18.0-0ubuntu1.4)
Package nginx-core is to be removed.
Package nginx-full is not installed.
Package nginx-light is not installed.
Package nginx-extras is not installed.

(Reading database ... 62972 files and directories currently installed.)
Removing nginx-core (1.18.0-0ubuntu1.4) ...
Removing libnginx-mod-mail (1.18.0-0ubuntu1.4) ...
dpkg: nginx-common: dependency problems, but removing anyway as you requested:
 libnginx-mod-stream depends on nginx-common (= 1.18.0-0ubuntu1.4).
 libnginx-mod-http-xslt-filter depends on nginx-common (= 1.18.0-0ubuntu1.4).
 libnginx-mod-http-image-filter depends on nginx-common (= 1.18.0-0ubuntu1.4).
Removing nginx-common (1.18.0-0ubuntu1.4) ...
(Reading database ... 62941 files and directories currently installed.)
Preparing to unpack .../nginx_1.20.1-1-xenia1_amd64.deb ...
Unpacking nginx (1.20.1-1-xenia1) over (1.18.0-0ubuntu1.4) ...
(Reading database ... 62958 files and directories currently installed.)
Removing libnginx-mod-stream (1.18.0-0ubuntu1.4) ...
Removing libnginx-mod-http-image-filter (1.18.0-0ubuntu1.4) ...
Removing libnginx-mod-http-xslt-filter (1.18.0-0ubuntu1.4) ...
Setting up nginx (1.20.1-1-xenia1) ...
Installing new version of config file /etc/default/nginx ...
Installing new version of config file /etc/init.d/nginx ...
Installing new version of config file /etc/logrotate.d/nginx ...
Installing new version of config file /etc/nginx/mime.types ...
Installing new version of config file /etc/nginx/nginx.conf ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for systemd (245.4-4ubuntu3.20) ...
root@ip-172-31-94-105: /home/ubuntu# service nginx start
root@ip-172-31-94-105: /home/ubuntu# systemctl status nginx
● nginx.service - nginx - high performance web server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2023-04-18 08:11:48 UTC; 11s ago
     Docs: https://nginx.org/en/docs/
   Process: 8312 ExecStart=/usr/sbin/nginx -c /etc/nginx/nginx.conf (code=exited, status=0/SUCCESS)
    Main PID: 8313 (nginx)
       Tasks: 2 (limit: 1141)
      Memory: 1.6M
      CGroup: /system.slice/nginx.service
              └─8313 nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf
                  └─8314 nginx: worker process

Apr 18 08:11:48 ip-172-31-94-105 systemd[1]: Starting nginx - high performance web server...
Apr 18 08:11:48 ip-172-31-94-105 systemd[1]: nginx.service: Can't open PID file /run/nginx.pid (yet?) after start: Operation not permitted
Apr 18 08:11:48 ip-172-31-94-105 systemd[1]: Started nginx - high performance web server.

```

```

Main PID: 8313 (nginx)
   Tasks: 2 (limit: 1141)
  Memory: 1.6M
   CGroup: /system.slice/nginx.service
           └─8313 nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf
               └─8314 nginx: worker process

Apr 18 08:11:48 ip-172-31-94-105 systemd[1]: Starting nginx - high performance web server...
Apr 18 08:11:48 ip-172-31-94-105 systemd[1]: nginx.service: Can't open PID file /run/nginx.pid (yet?) after start: Operation not permitted
Apr 18 08:11:48 ip-172-31-94-105 systemd[1]: Started nginx - high performance web server.
root@ip-172-31-94-105: /home/ubuntu# service nginx restart
root@ip-172-31-94-105: /home/ubuntu# sudo nano /etc/nginx/sites-available/index.conf
root@ip-172-31-94-105: /home/ubuntu# sudo nano /etc/nginx/sites-available/index.conf
root@ip-172-31-94-105: /home/ubuntu# sudo ln -s /etc/nginx/sites-available/index.conf /etc/nginx/sites-enabled/
root@ip-172-31-94-105: /home/ubuntu# sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
root@ip-172-31-94-105: /home/ubuntu#

```

This screenshot shows the main page of a GitHub repository named 'Cloud_project_3' by user 'josmin7'. The repository is public and has 1 branch (master) and 0 tags. The file list includes: .github/workflows (Create aws.yml, yesterday), admin (Cloud project-no 3, 2 days ago), css (Cloud project-no 3, 2 days ago), fonts (Cloud project-no 3, 2 days ago), images (Cloud project-no 3, 2 days ago), js (Cloud project-no 3, 2 days ago), Information.txt (Cloud project-no 3, 2 days ago), db.php (Update db.php, yesterday), hotel.sql (Cloud project-no 3, 2 days ago), and index.php (Cloud project-no 3, 2 days ago). The right sidebar shows repository statistics: 0 stars, 1 watching, 0 forks, and no releases or packages published. The 'About' section is empty.

Github workflow

This screenshot shows the content of the 'aws.yml' workflow file located at 'Cloud_project_3/.github/workflows/aws.yml'. The file is 31 lines long (29 sloc) and 804 bytes. It defines a workflow named 'Deploy to EC2' that triggers on a push to the 'main' branch. The workflow uses 'ubuntu-latest' as the runner and includes a 'Checkout code' step.

```
1 name: Deploy to EC2
2
3 on:
4   push:
5     branches:
6       - main
7
8 jobs:
9   deploy:
10    runs-on: ubuntu-latest
11    steps:
12      - name: Checkout code
```

```
2
3   on:
4     push:
5       branches:
6         - main
7
8   jobs:
9     deploy:
10      runs-on: ubuntu-latest
11      steps:
12        - name: Checkout code
13          uses: actions/checkout@v2
14        - name: Install dependencies
15          run: sudo apt-get update && sudo apt-get install -y php-fpm
16        - name: Copy files to EC2 instance
17          uses: appleboy/scp-action@master
18          with:
19            host: ${ secrets.EC2_HOST }
20            username: ${ secrets.EC2_USER }
21            key: ${ secrets.EC2_KEY }
22            source: ./
23            target: /var/www/html
24        - name: SSH into EC2 instance and restart PHP
25          uses: appleboy/ssh-action@master
26          with:
27            host: ${ secrets.EC2_HOST }
28            username: ${ secrets.EC2_USER }
29            key: ${ secrets.EC2_KEY }
30            script: |
31              sudo service php7.4-fpm restart
```

[Give feedback](#)

