Homemade Pickles & Snacks -Taste the Best

Project Description:

Home Made Pickles & Snacks — Taste the Best is a cloud-based culinary platform revolutionizing access to authentic, handcrafted pickles and snacks. Addressing the growing demand for preservative-free, traditional recipes, this initiative combines artisanal craftsmanship with cutting-edge technology to deliver farm-fresh flavours directly to consumers. Built on Flask for backend efficiency and hosted on AWS EC2 for scalable performance, the platform offers seamless browsing, ordering, and subscription management. DynamoDB ensures real-time inventory tracking and personalized user experiences, while fostering sustainability through partnerships with local farmers and eco-friendly packaging. From tangy regional pickles to wholesome snacks, every product celebrates heritage recipes, nutritional integrity, and convenience—proving that tradition and innovation can coexist deliciously. "Preserving Traditions, One Jar at a Time."

Scenario 1: Scalable Order Management for High Demand

A cloud-based system ensures seamless order processing during peak user activity. For instance, during a promotional event, hundreds of users simultaneously access the platform to place orders. The backend efficiently processes requests, updates inventory in real-time, and manages user sessions. The cloud infrastructure handles traffic spikes without performance degradation, ensuring smooth transactions and minimizing wait times.

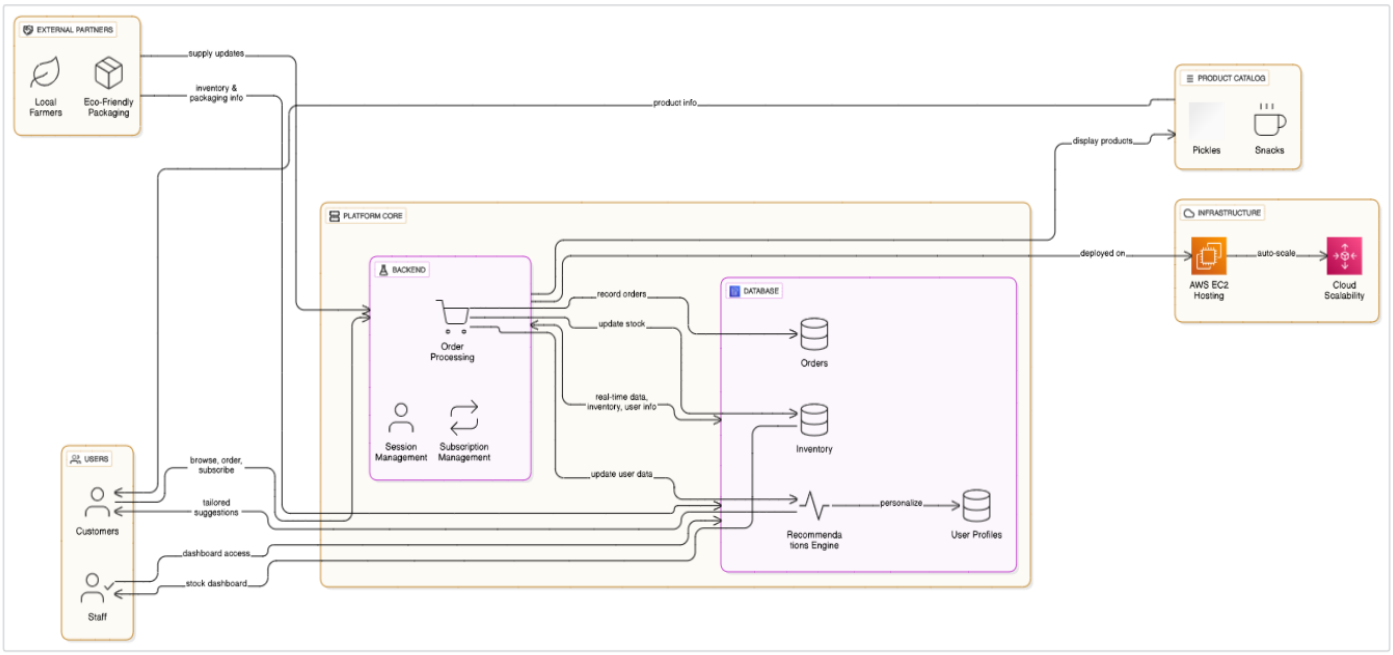
Scenario 2: Real-Time Inventory Tracking and Updates

When a customer places an order for a product, the system instantly updates stock levels and records transaction details. For example, a user purchases an item, triggering automatic inventory deduction and order confirmation. Staff members receive updated dashboards to monitor stock availability and fulfillment progress, ensuring timely restocking and minimizing overselling risks.

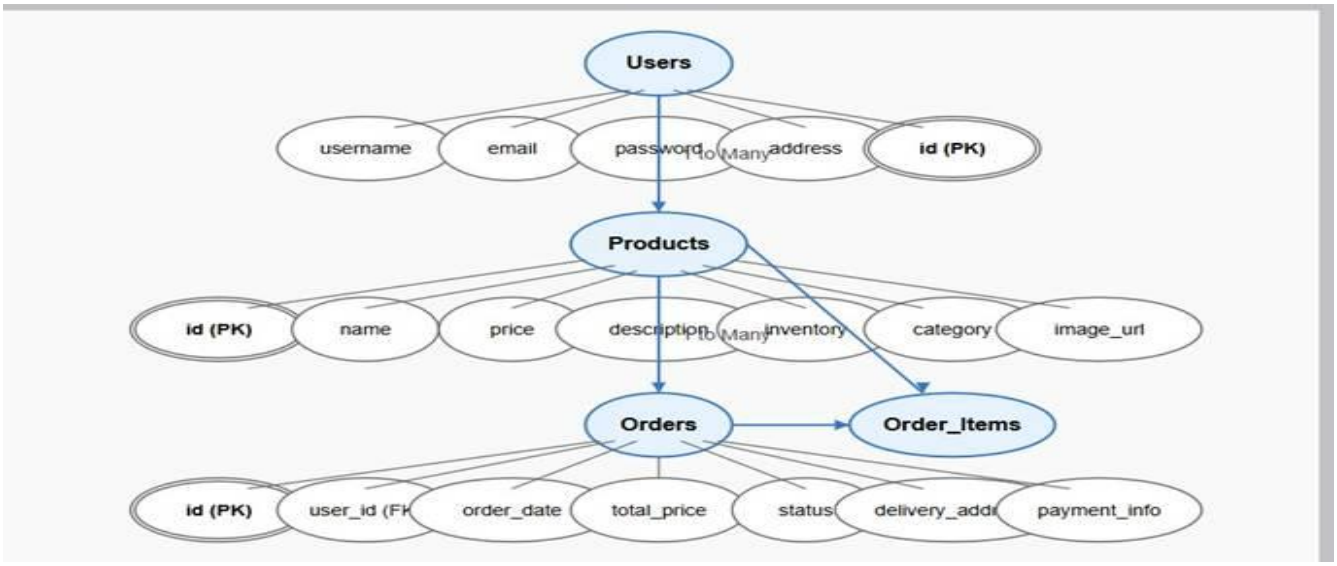
Scenario 3: Personalized User Experience and Recommendations

The platform leverages user behaviour data to enhance engagement. A returning customer, for instance, views tailored recommendations based on past purchases and browsing history. The system dynamically adjusts suggestions in real-time, while maintaining fast response rates even during high traffic, creating a frictionless and intuitive shopping experience.

AWS ARCHITECTURE



Entity Relationship (ER)Diagram:



Pre-requisites:

1. AWS Account Setup:

- https://docs.aws.amazon.com/accounts/latest/reference/getting-started.html

2. AWS IAM (Identity and Access Management):

- https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html

3. AWS EC2 (Elastic Compute Cloud):

- https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html

4. AWS DynamoDB:

- https://docs.aws.amazon.com/amazondynamodb/Introduction.html

5. Git Documentation:

- https://git-scm.com/doc

6. VS Code Installation: (download the VS Code using the below link or you can get that in Microsoft store):

- https://code.visualstudio.com/download

Project WorkFlow:

1. AWS Account Setup and Login

Activity 1.1: Set up an AWS account if not already done**.**

Activity 1.2: Log in to the AWS Management Console

2. DynamoDB Database Creation and Setup

Activity 2.1: Create a DynamoDB Table.

Activity 2.2: Configure Attributes for User Data and Book Requests.

3. SNS Notification Setup

Activity 3.1: Create SNS topics for book request notifications.

Activity 3.2: Subscribe users and library staff to SNS email notifications.

4. Backend Development and Application Setup

Activity 4.1:Develop the Backend Using Flask.

Activity 4.2: Integrate AWS Services Using boto3.

5. IAM Role Setup

Activity 5.1: Create IAM Role

Activity 5.2: Attach Policies

6. EC2 Instance Setup

Activity 6.1: Launch an EC2 instance to host the Flask application.

Activity 6.2: Configure security groups for HTTP, and SSH access.

7. Deployment on EC2

Activity 7.1:Upload Flask Files

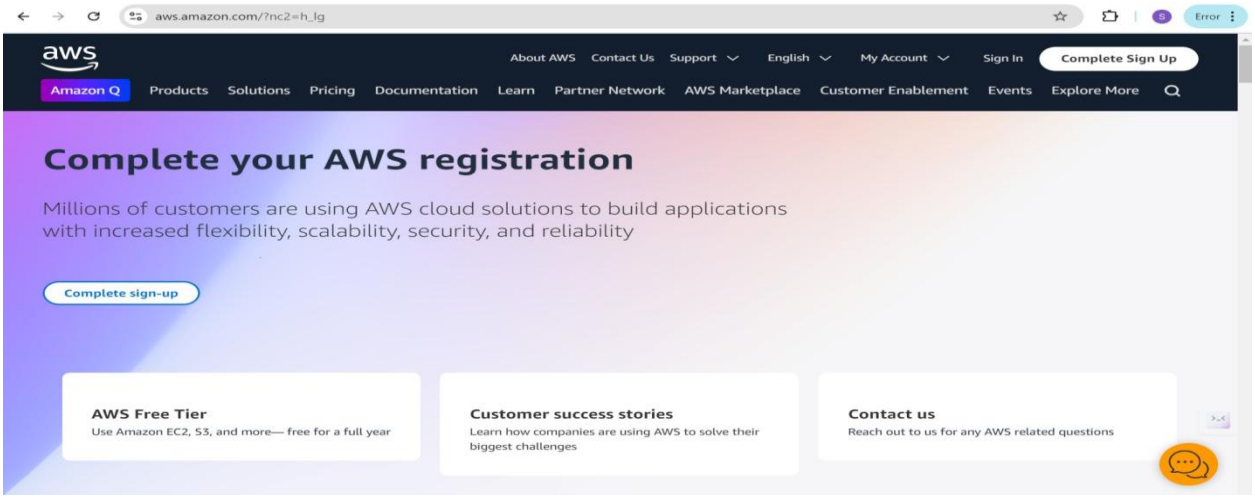
Activity 7.2: Run the Flask App

8. Testing and Deployment

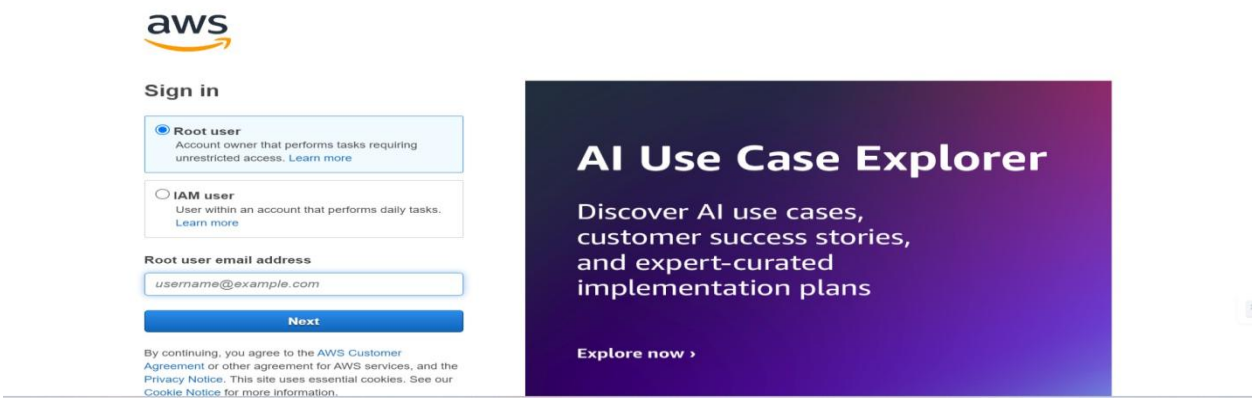
Activity 8.1: Conduct functional testing to verify user registration, login, book requests, and notifications.

Milestone 1: AWS Account Setup and Login

- **Activity 1.1: Set up an AWS account if not already done.**
  - Sign up for an AWS account and configure billing settings.



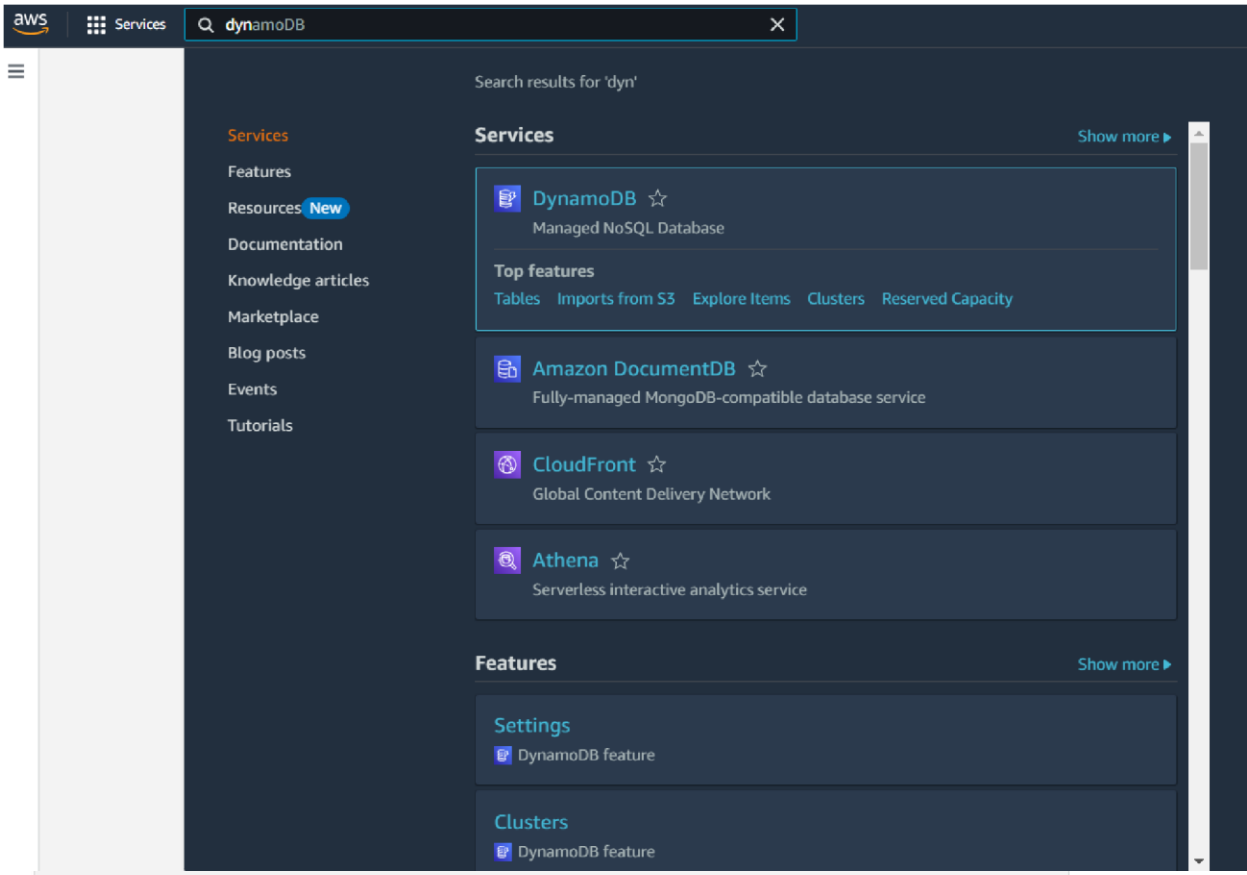
- **Activity 1.2: Log in to the AWS Management Console**
  - After setting up your account, log in to the AWS Management Console.

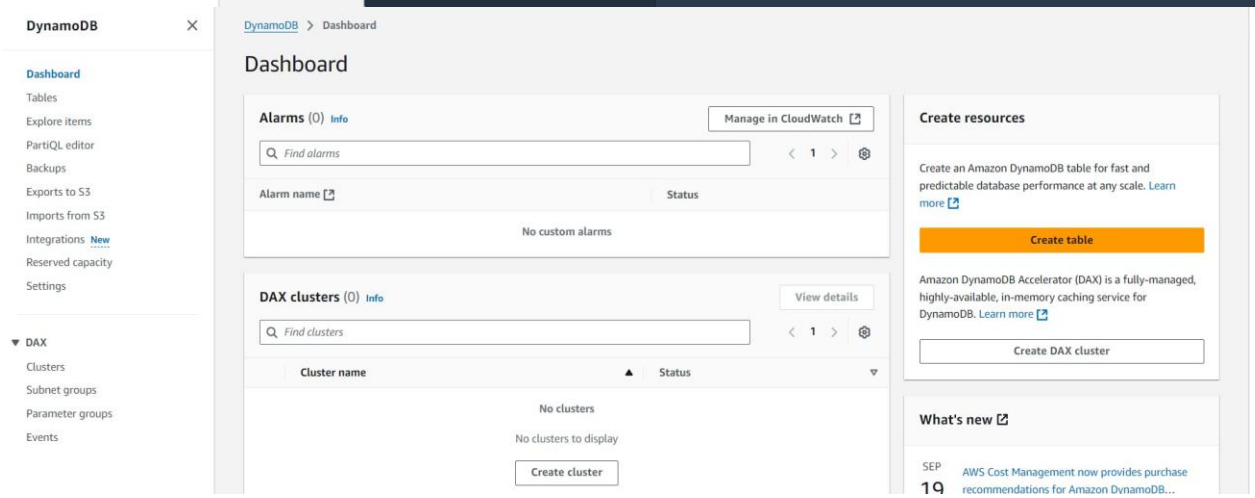


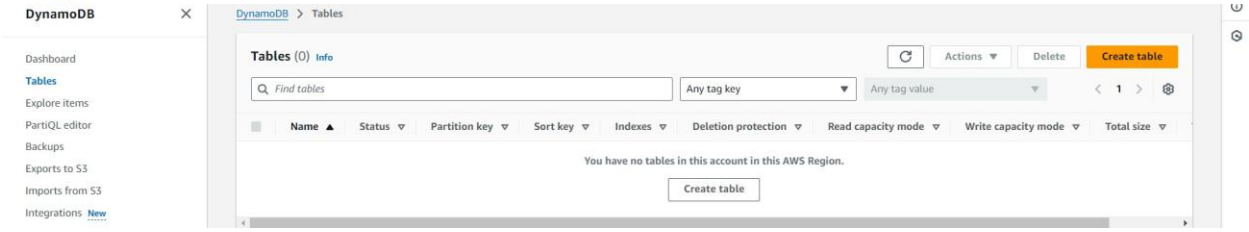
Milestone 2: DynamoDB Database Creation and Setup

- **Activity 2.1:Navigate to the DynamoDB.**

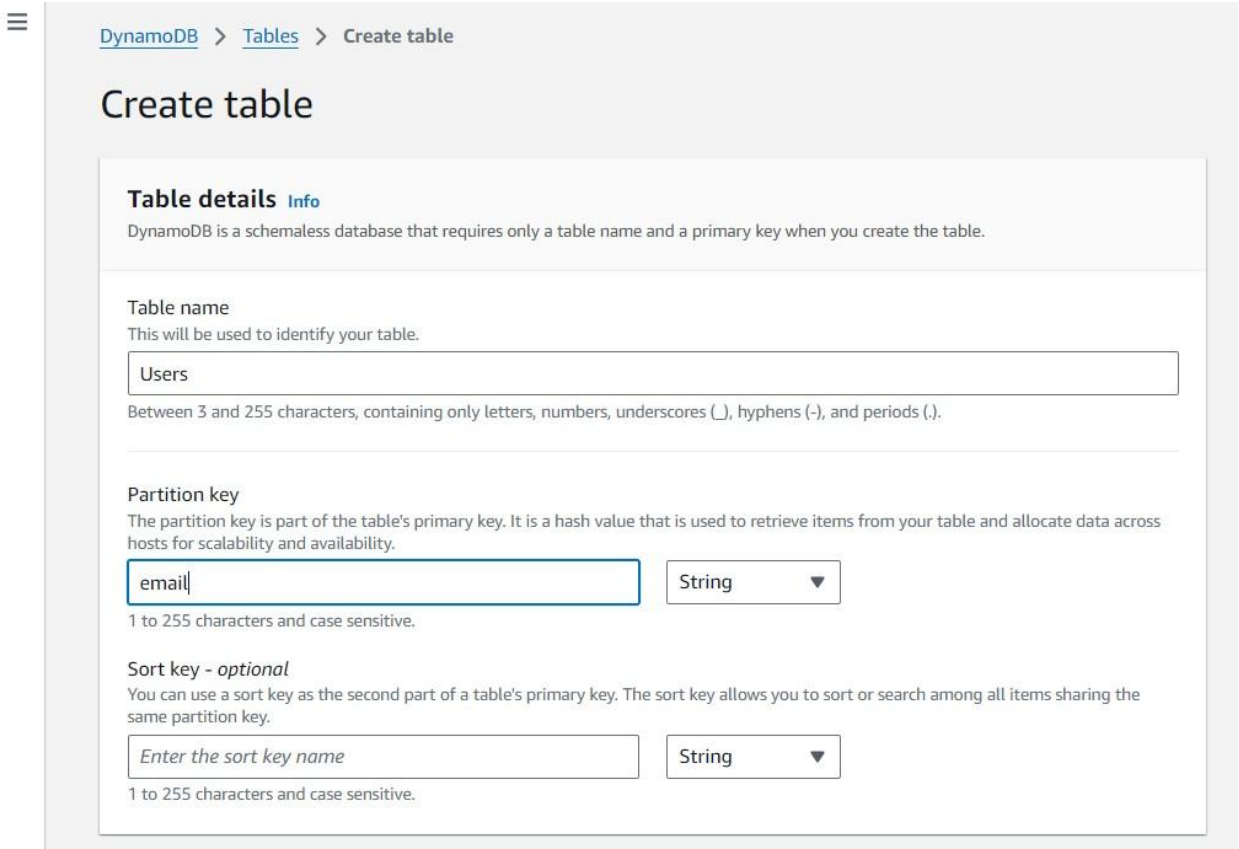
In the AWS Console, navigate to DynamoDB and click on create tables.







- **Activity 2.2:Create a DynamoDB table for storing order details.**
    - Create Orders table with partition key “order_id” with type String and click on create tables.



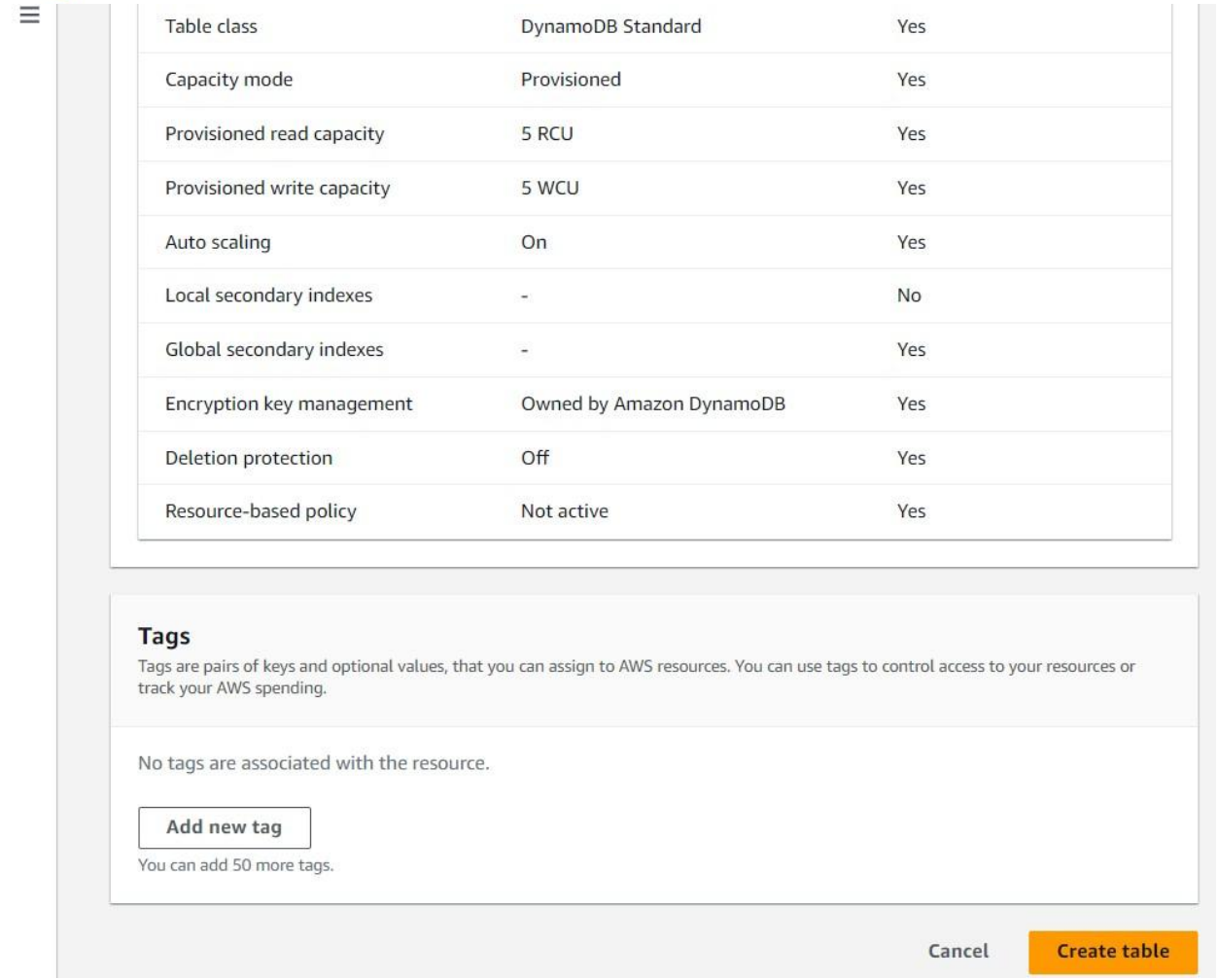
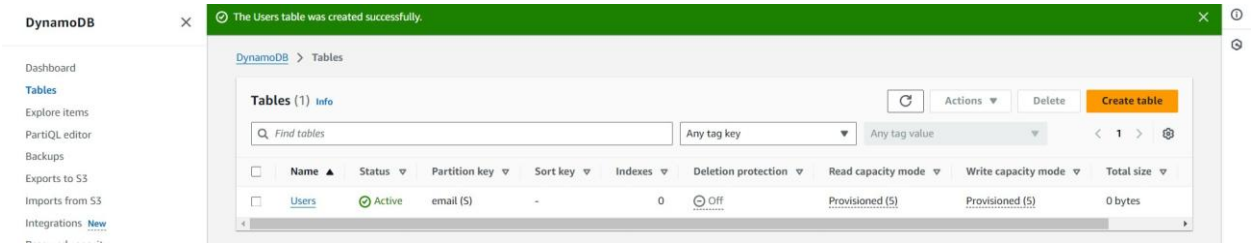
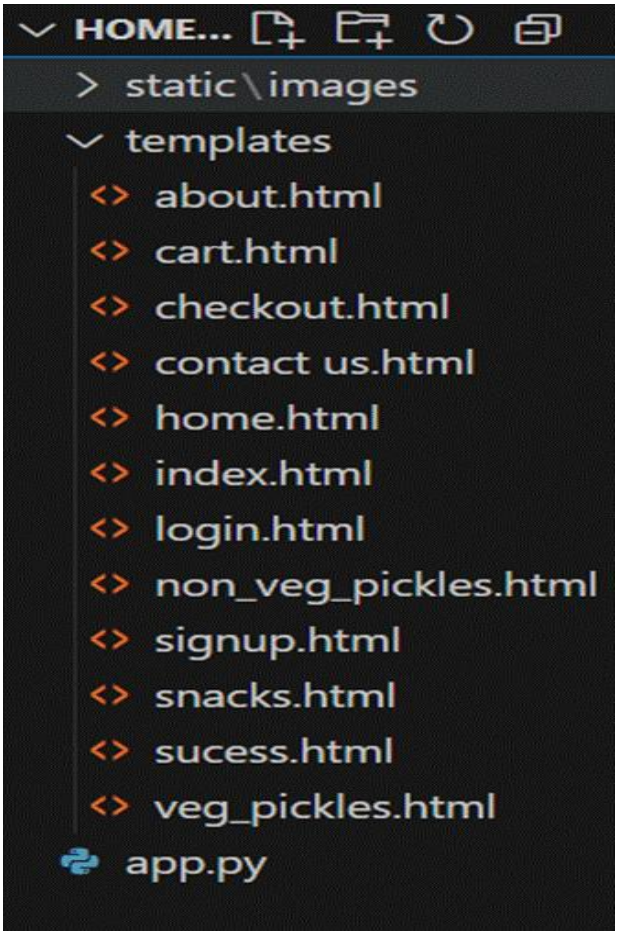


Table class	DynamoDB Standard	Yes
Capacity mode	Provisioned	Yes
Provisioned read capacity	5 RCU	Yes
Provisioned write capacity	5 WCU	Yes
Auto scaling	On	Yes
Local secondary indexes	-	No
Global secondary indexes	-	Yes
Encryption key management	Owned by Amazon DynamoDB	Yes
Deletion protection	Off	Yes
Resource-based policy	Not active	Yes



Milestone 4:Backend Development and Application Setup

- **Activity 4.1: Develop the backend using Flask**
  - File Explorer Structure



Description: Build a Home Made Pickles & Snacks project with an app.py file, a static/ folder for assets, and a templates/ directory containing all required HTML pages like home, login, pickles pages (e.gveg_pickles.html,snacks.html), and utility pages (e.g.,success.html,checkout.html).

Description of the code :

- **Flask App Initialization**

```
from flask import Flask, render_template, request, redirect, url_for, session
from werkzeug.security import generate_password_hash, check_password_hash
import boto3
from datetime import datetime
import json,uuid
```

Description: import essential libraries including Flask utilities for routing, Boto3 for DynamoDB operations, SMTP and email modules for sending mails, and Bcrypt for password hashing and verification

```
app = Flask(__name__)
```

Description: initialize the Flask application instance using Flask(__name__) to start building the web app.

- **Dynamodb Setup:**

```
dynamodb = boto3.resource('dynamodb', region_name='ap-south-1')  # e.g., 'us-east-1'
users_table = dynamodb.Table('Users')
orders_table = dynamodb.Table('Orders')
```

Description: initialize the DynamoDB resource for the ap-south-1 region and set up access to the Users and Orders tables for storing user details and order details.

● Routes for Web Pages

- **Home Route:**

```
@app.route('/home')
def home():
    if not session.get('logged_in'):
        return redirect(url_for('login'))
    return render_template('home.html')

@app.route('/non_veg_pickles')
def non_veg_pickles():
    if not session.get('logged_in'):
        return redirect(url_for('login'))

    return render_template('non_veg_pickles.html', products=products['non_veg_pickles'])

@app.route('/veg_pickles')
def veg_pickles():
    if not session.get('logged_in'):
        return redirect(url_for('login'))

    # Simply pass all products without filtering
    return render_template('veg_pickles.html', products=products['veg_pickles'])

@app.route('/snacks')
def snacks():
    if not session.get('logged_in'):
        return redirect(url_for('login'))

    return render_template('snacks.html', products=products['snacks']
```

Restart Visual Studio

Description: define the home route / to automatically redirect users to the register page when they access the base URL.

- **login Route (GET/POST)**:

```python
@app.route('/')
def index():
    return render_template('index.html')

@app.route('/login', methods=['GET', 'POST'])
def login():
    if request.method == 'POST':
        username = request.form['username']
        password = request.form['password']

        try:
            # Fetch user from DynamoDB
            response = users_table.get_item(Key={'username': username})

            if 'Item' not in response:
                return render_template('login.html', error='User not found')

            user = response['Item']

            # Ensure password field exists in the DB
            if 'password' not in user:
                return render_template('login.html', error='Password not found in database')

            # Verify password
            if check_password_hash(user['password'], password):
                session['logged_in'] = True
                session['username'] = username
                session.setdefault('cart', [])  # Initialize cart if not set
```

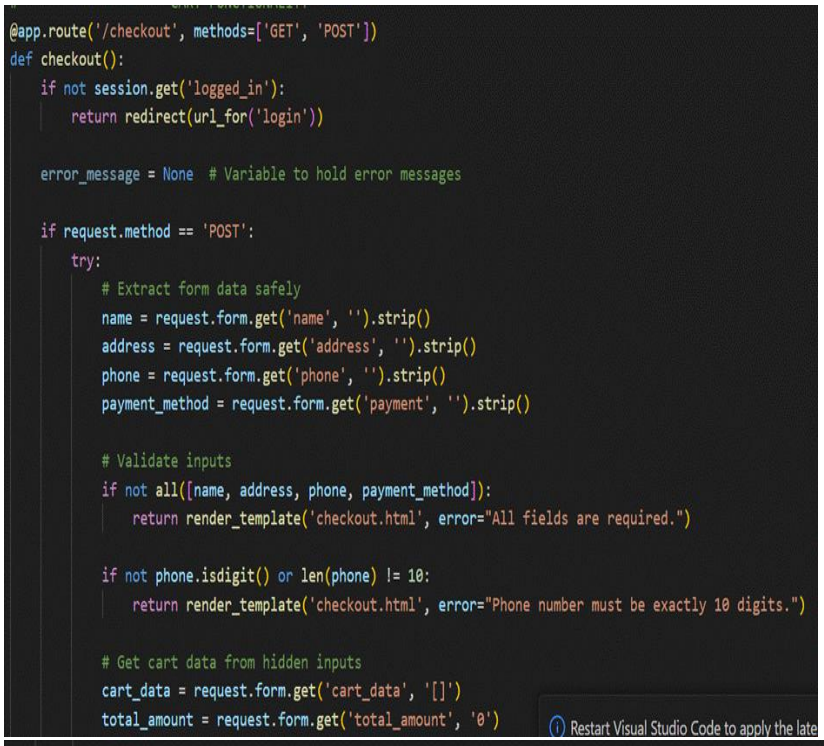
Description: define /login route to validate user credentials against DynamoDB, check the password using Bcrypt, update the login count on successful authentication, and redirect users to the home page

- **Home, veg pickles, non veg pickles, snacks routes:**

```python
@app.route('/home')
def home():
    if not session.get('logged_in'):
        return redirect(url_for('login'))
    return render_template('home.html')

@app.route('/non_veg_pickles')
def non_veg_pickles():
    if not session.get('logged_in'):
        return redirect(url_for('login'))

    return render_template('non_veg_pickles.html', products=products['non_veg_pickles'])

@app.route('/veg_pickles')
def veg_pickles():
    if not session.get('logged_in'):
        return redirect(url_for('login'))

    # Simply pass all products without filtering
    return render_template('veg_pickles.html', products=products['veg_pickles'])

@app.route('/snacks')
def snacks():
    if not session.get('logged_in'):
        return redirect(url_for('login'))

    return render_template('snacks.html', products=products['snacks'])
```

Description: define /home-page to render the main homepage, specific pages like veg pickles and non veg pickles.

- **Checkout Routes:**



```python
@app.route('/checkout', methods=['GET', 'POST'])
def checkout():
    if not session.get('logged_in'):
        return redirect(url_for('login'))

    error_message = None  # Variable to hold error messages

    if request.method == 'POST':
        try:
            # Extract form data safely
            name = request.form.get('name', '').strip()
            address = request.form.get('address', '').strip()
            phone = request.form.get('phone', '').strip()
            payment_method = request.form.get('payment', '').strip()

            # Validate inputs
            if not all([name, address, phone, payment_method]):
                return render_template('checkout.html', error="All fields are required.")

            if not phone.isdigit() or len(phone) != 10:
                return render_template('checkout.html', error="Phone number must be exactly 10 digits.")

            # Get cart data from hidden inputs
            cart_data = request.form.get('cart_data', '[]')
            total_amount = request.form.get('total_amount', '0')
```

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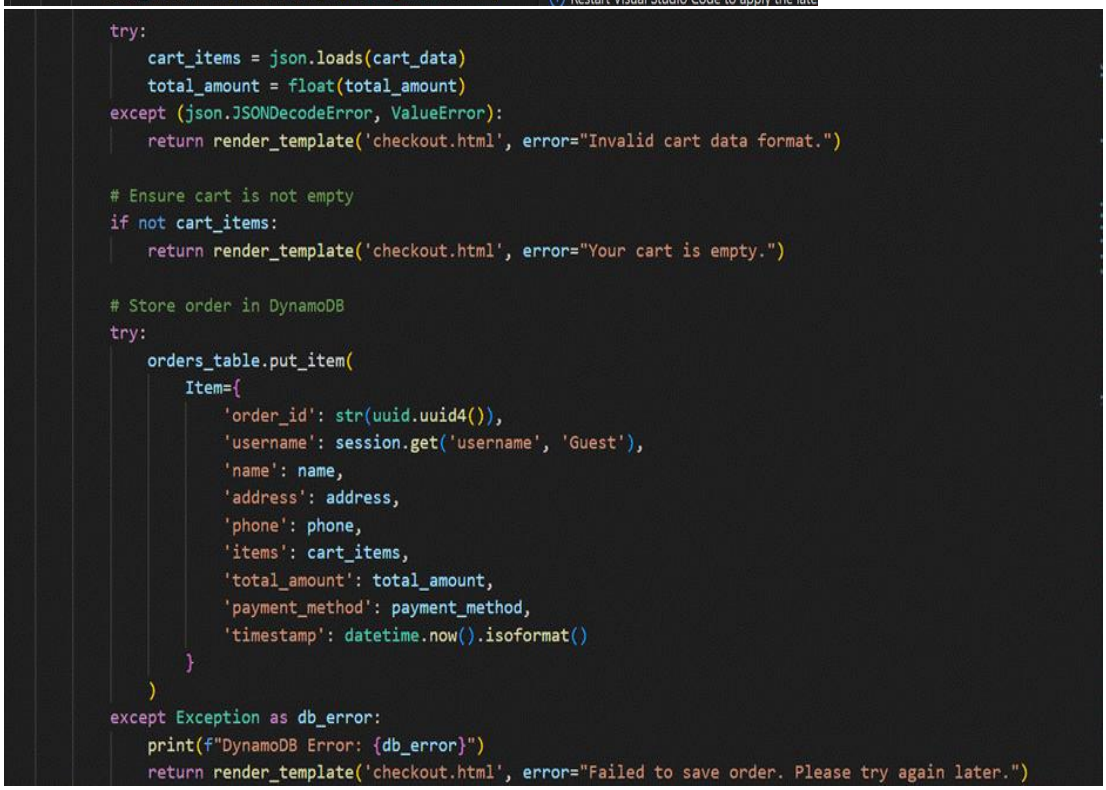


```python
            try:
                cart_items = json.loads(cart_data)
                total_amount = float(total_amount)
            except (json.JSONDecodeError, ValueError):
                return render_template('checkout.html', error="Invalid cart data format.")

            # Ensure cart is not empty
            if not cart_items:
                return render_template('checkout.html', error="Your cart is empty.")

            # Store order in DynamoDB
            try:
                orders_table.put_item(
                    Item={
                        'order_id': str(uuid.uuid4()),
                        'username': session.get('username', 'Guest'),
                        'name': name,
                        'address': address,
                        'phone': phone,
                        'items': cart_items,
                        'total_amount': total_amount,
                        'payment_method': payment_method,
                        'timestamp': datetime.now().isoformat()
                    }
                )
            except Exception as db_error:
                print(f"DynamoDB Error: {db_error}")
                return render_template('checkout.html', error="Failed to save order. Please try again later.")
```

```
            # Redirect to success page with success message
            return redirect(url_for('sucess', message="Your order has been placed successfully!"))

        except Exception as e:
            print(f"Checkout error: {str(e)}")
            return render_template('checkout.html', error="An unexpected error occurred. Please try again.")

    return render_template('checkout.html')  # Render checkout page for GET request


@app.route('/sucess')
def success():
    return render_template('sucess.html')

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=5000, debug=True)  # Add debug=True temporarily
```

Description: define /request-form route to order details from users, store the order details in DynamoDB, confirm check out with a success message.

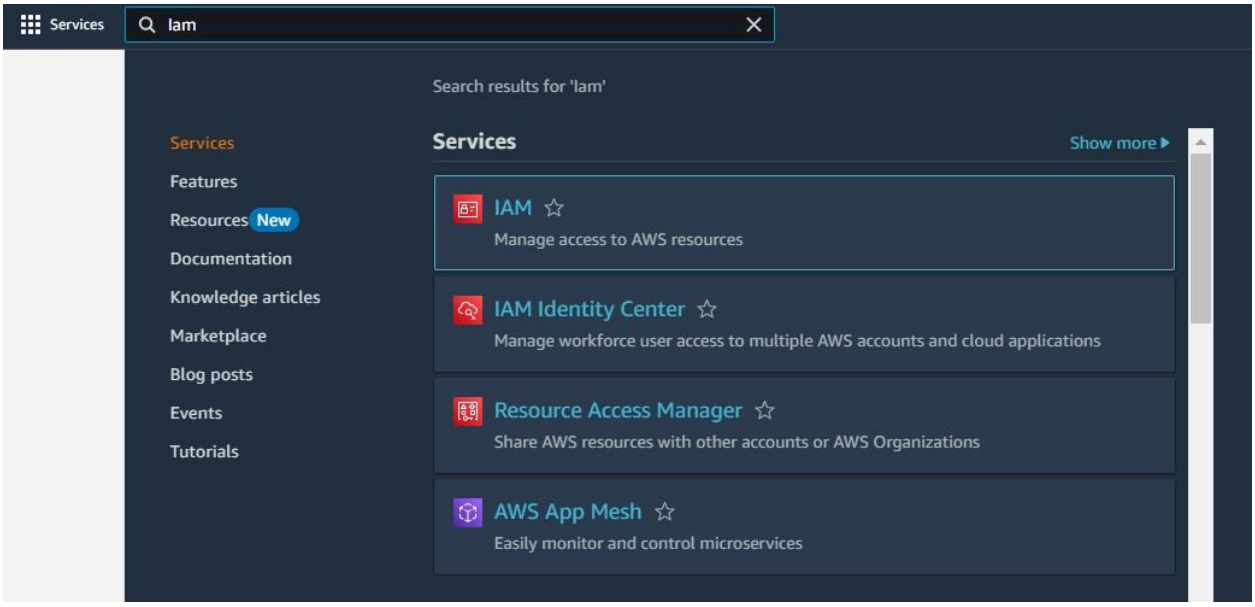
Deployment Code:

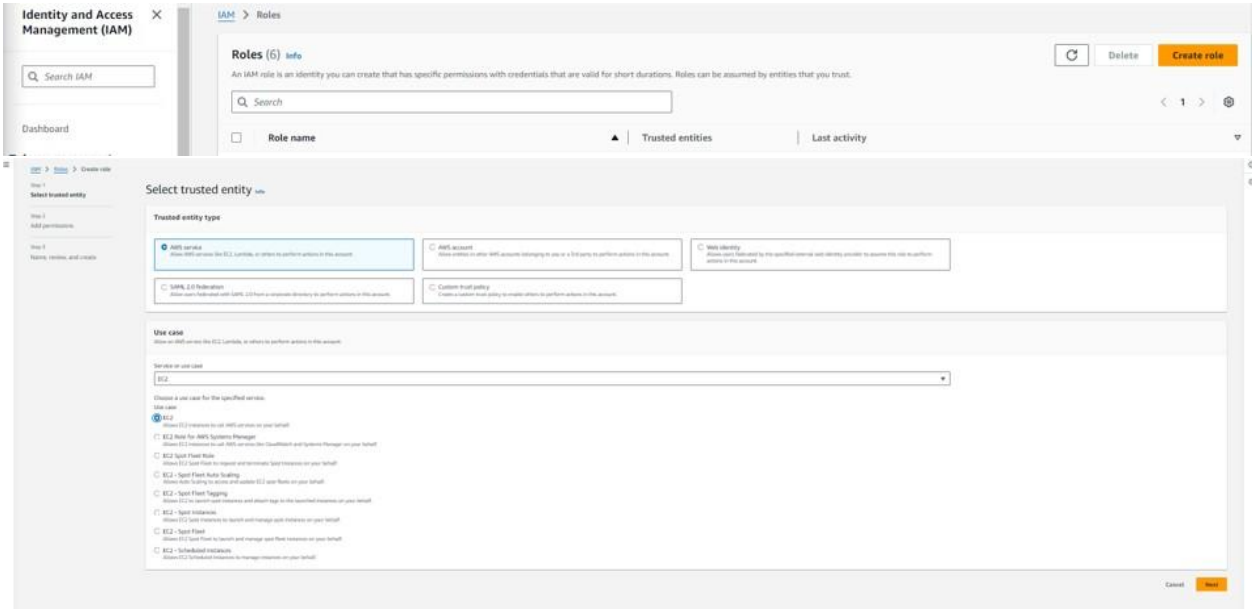
```
if __name__ == "__main__":
    app.run(host='0.0.0.0', port=80, debug=True)
```

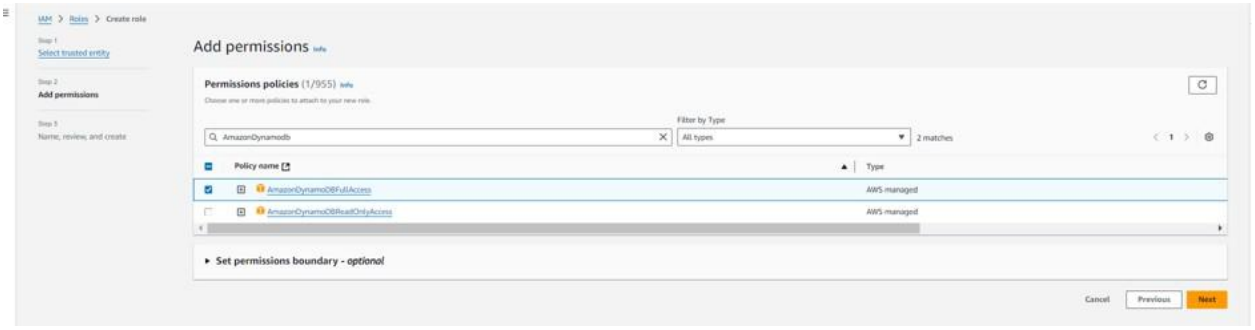
Description: start the Flask server to listen on all network interfaces (0.0.0.0) at port 80 with debug mode enabled for development and testing.

Milestone 5: IAM Role Setup

- **Activity 5.1:Create IAM Role.**
    - In the AWS Console, go to IAM and create a new IAM Role for EC2 to interact with DynamoDB and SNS.


Services
Iam
Search results for 'Iam'
Services
Features
Resources New
Documentation
Knowledge articles
Marketplace
Blog posts
Events
Tutorials
Services
Show more
IAM
Manage access to AWS resources
IAM Identity Center
Manage workforce user access to multiple AWS accounts and cloud applications
Resource Access Manager
Share AWS resources with other accounts or AWS Organizations
AWS App Mesh
Easily monitor and control microservices

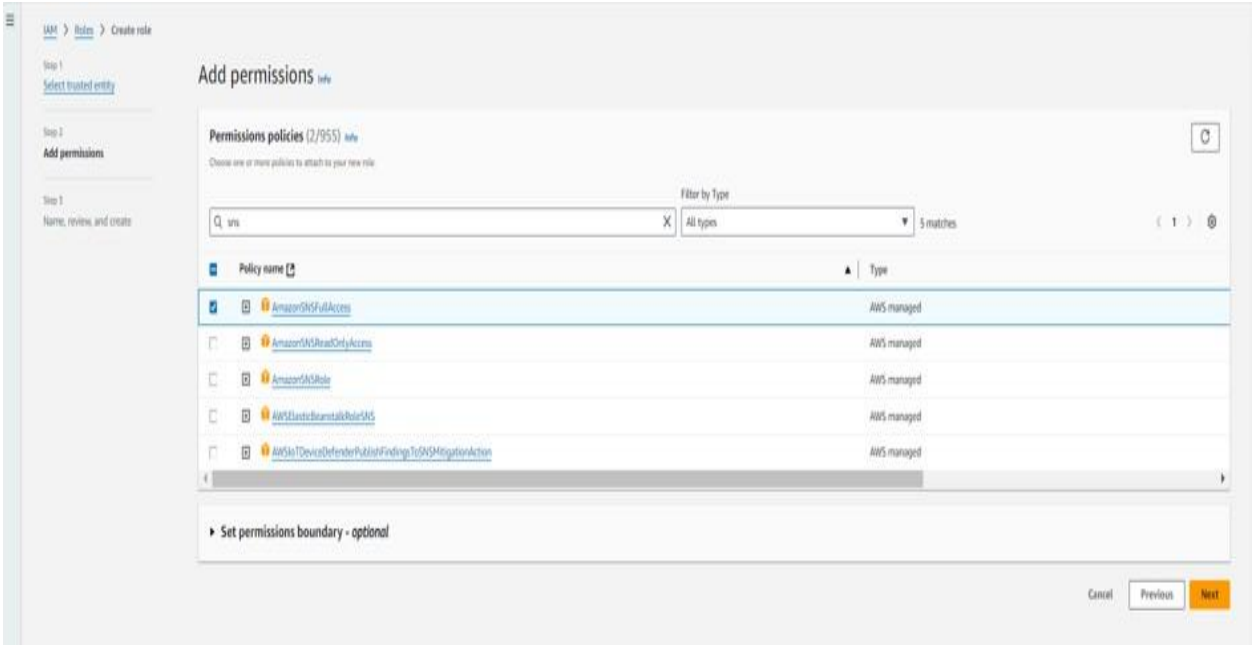

Identity and Access Management (IAM)
Search IAM
Dashboard
IAM > Roles
Roles (6) Info
An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.
Search
Delete
Create role
Role name
Trusted entities
Last activity
Select trusted entity
Trusted entity type
Use case

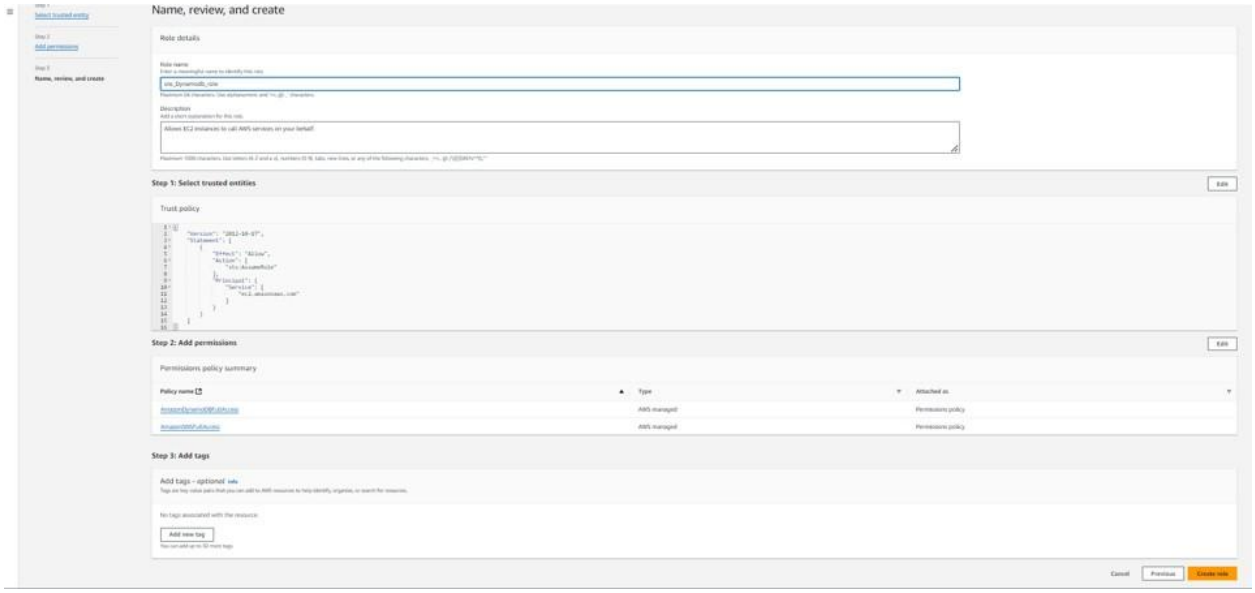

IAM > Roles > Create role
Step 1
Select trusted entity
Step 2
Add permissions
Step 3
Name, review, and create
Add permissions
Permissions policies (1/955)
Filter by Type
AmazonDynamodb
All types
2 matches
Policy name
Type
AmazonDynamoDBFullAccess
AWS managed
AmazonDynamoDBReadOnlyAccess
AWS managed
Set permissions boundary - optional
Cancel
Previous
Next

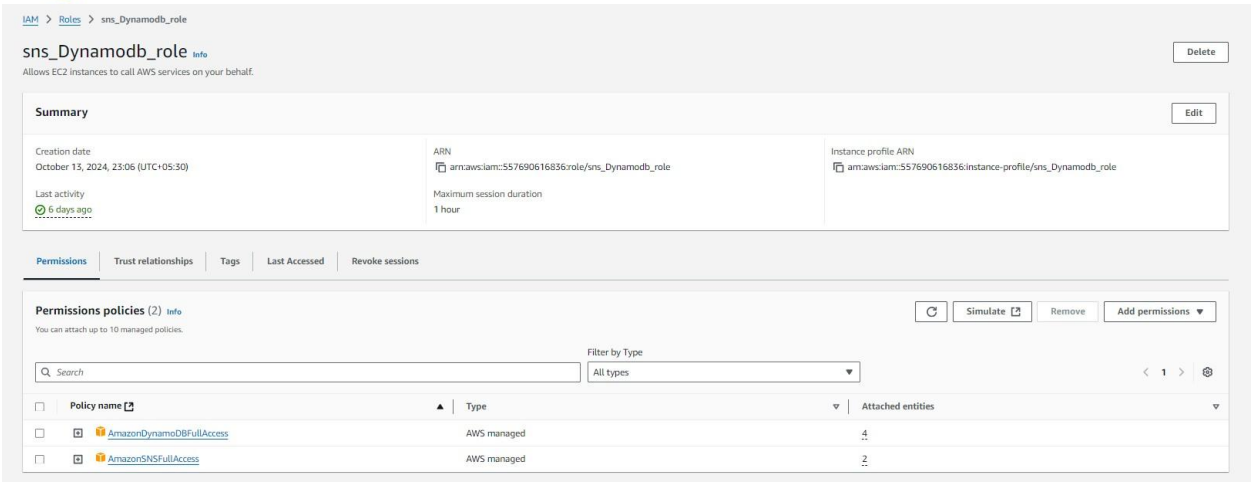
- **Activity 5.2: Attach Policies.**

  Attach the following policies to the role:

- AmazonDynamoDBFullAccess: Allows EC2 to perform read/write operations on DynamoDB.
- AmazonSNSFullAccess: Grants EC2 the ability to send notifications via SNS.

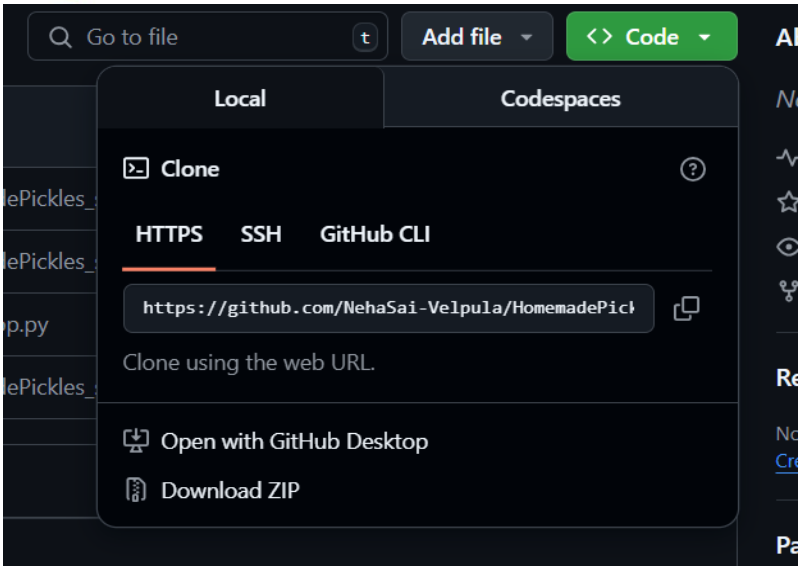






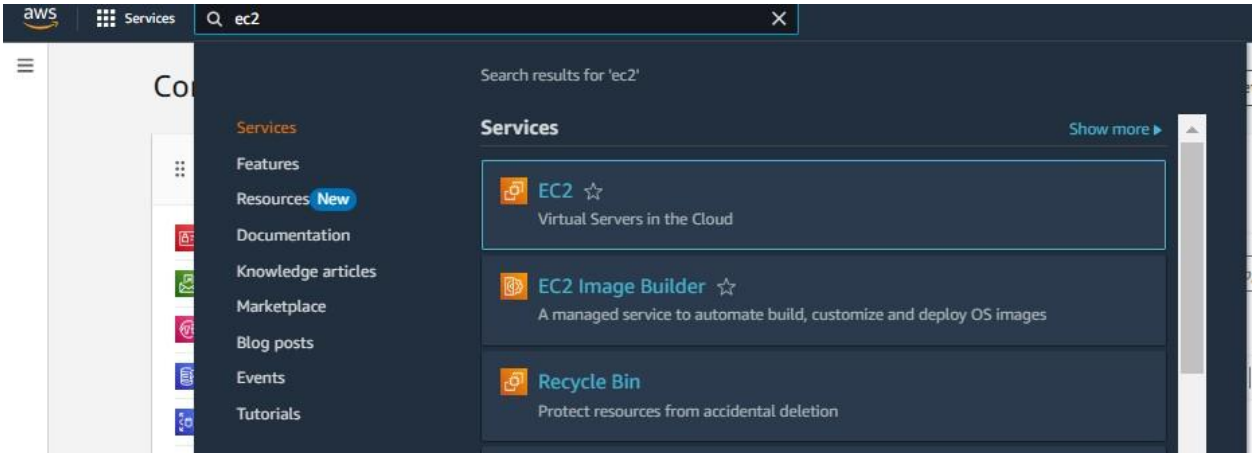
Milestone 6: EC2 Instance Setup

- **Note: Load your Flask app and Html files into GitHub repository.**

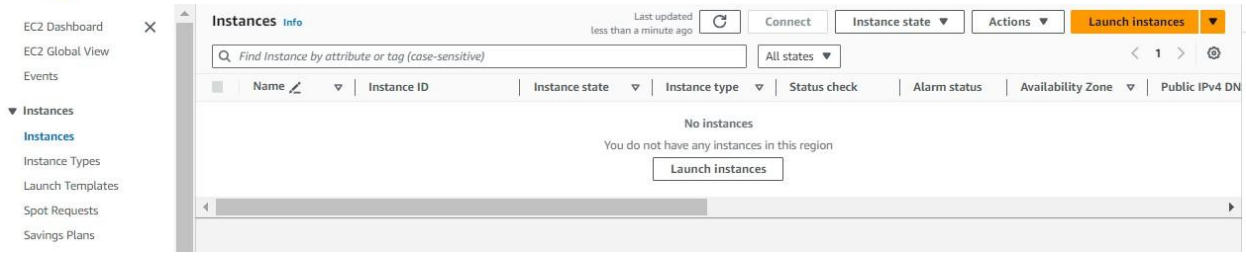


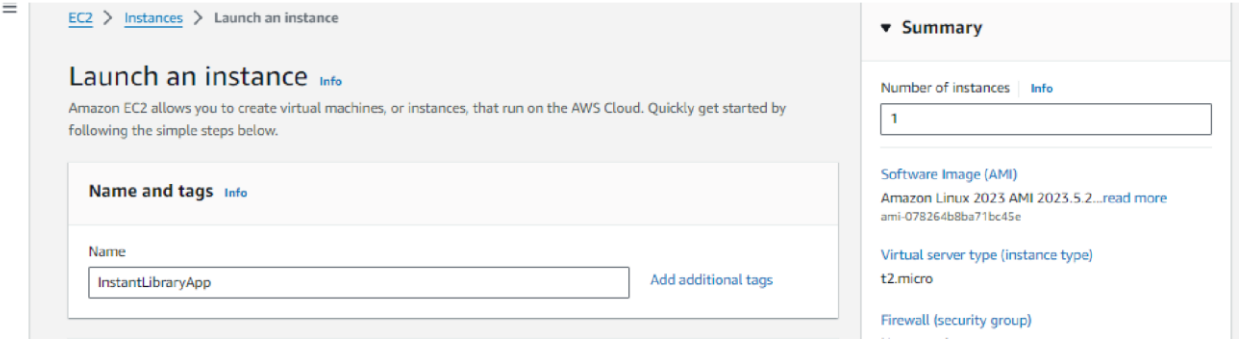
- **Activity 6.1: Launch an EC2 instance to host the Flask application.**

- **Launch EC2 Instance**
    - In the AWS Console, navigate to EC2 and launch a new instance.

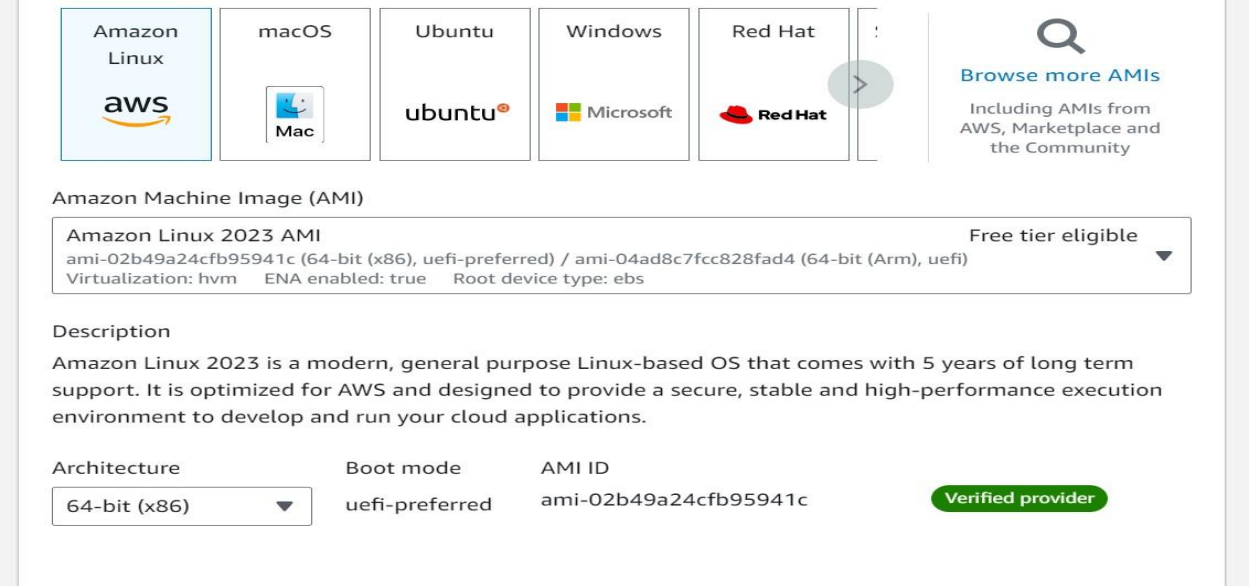


- Click on Launch instance to launch EC2 instance

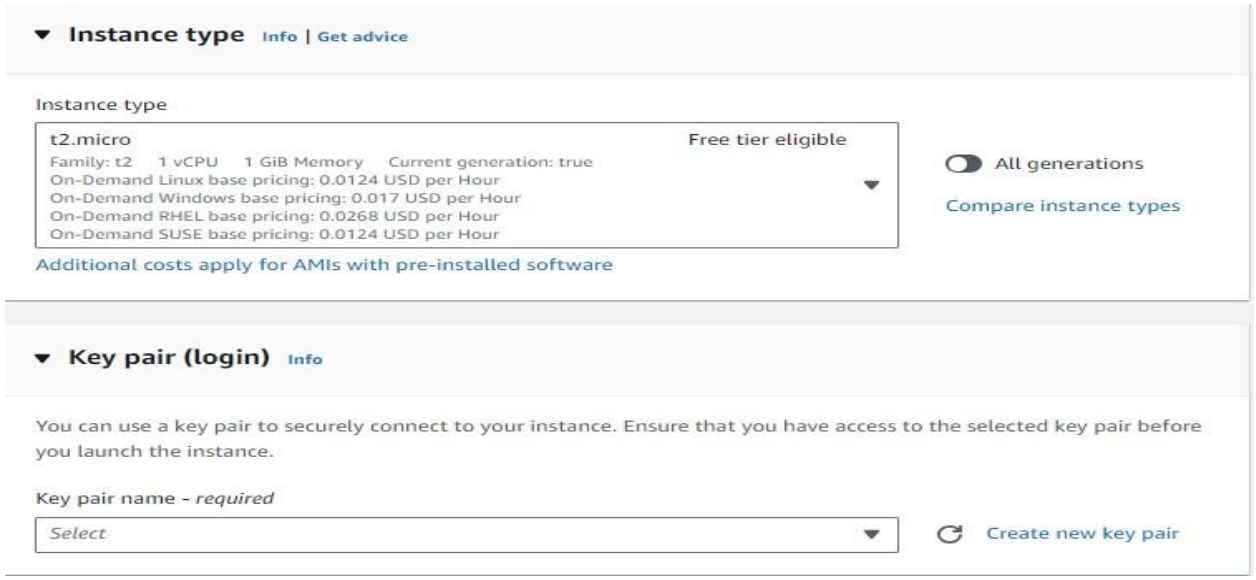


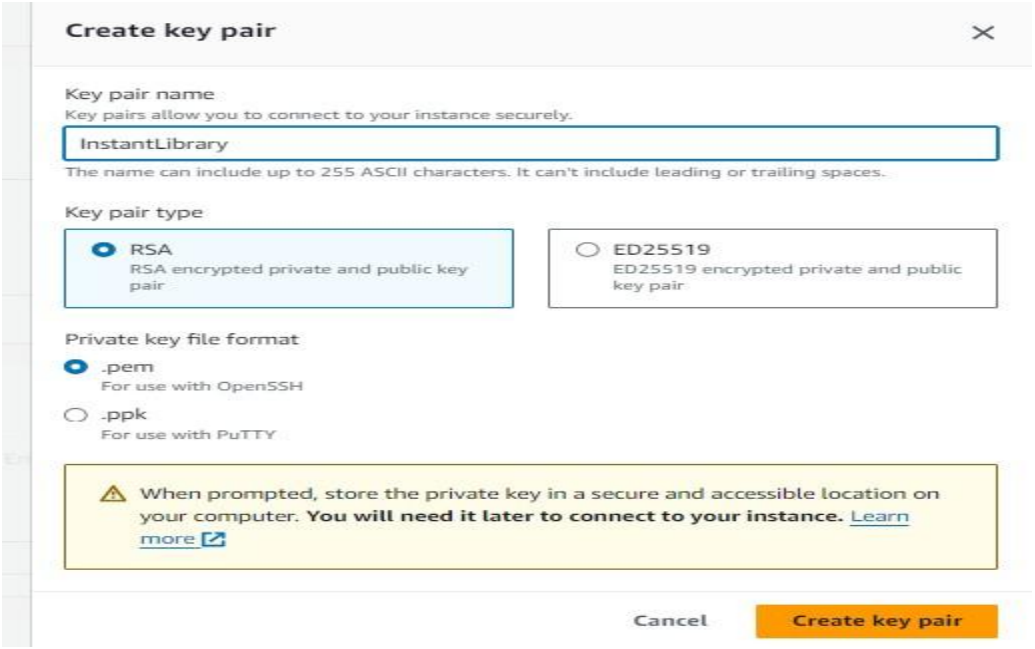


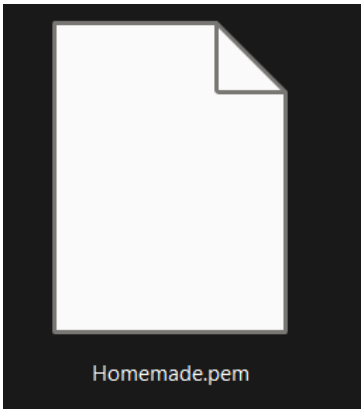
- Choose Amazon Linux 2 or Ubuntu as the AMI and t2.micro as the instance type (free-tier eligible).

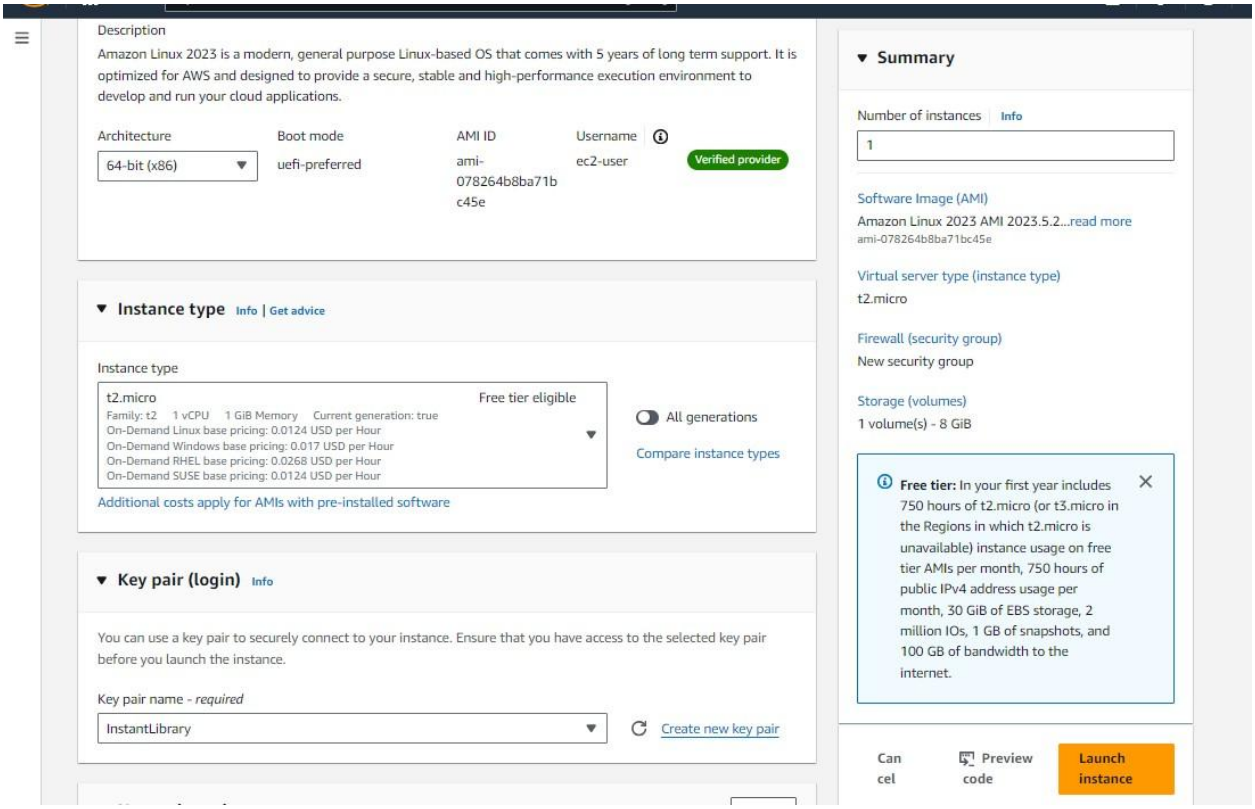


- Create and download the key pair for Server access.

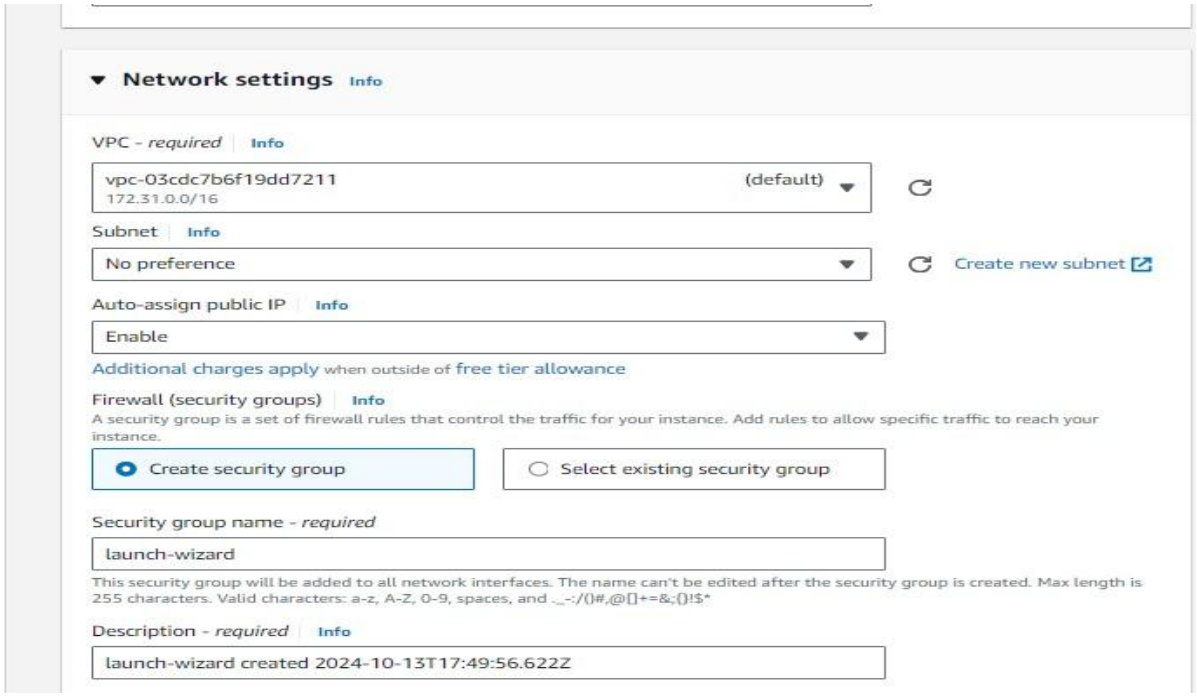

Instance type Info | Get advice
Instance type
t2.micro
Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Linux base pricing: 0.0124 USD per Hour
On-Demand Windows base pricing: 0.017 USD per Hour
On-Demand RHEL base pricing: 0.0268 USD per Hour
On-Demand SUSE base pricing: 0.0124 USD per Hour
All generations
Compare instance types
Additional costs apply for AMIs with pre-installed software
Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
Select
Create new key pair

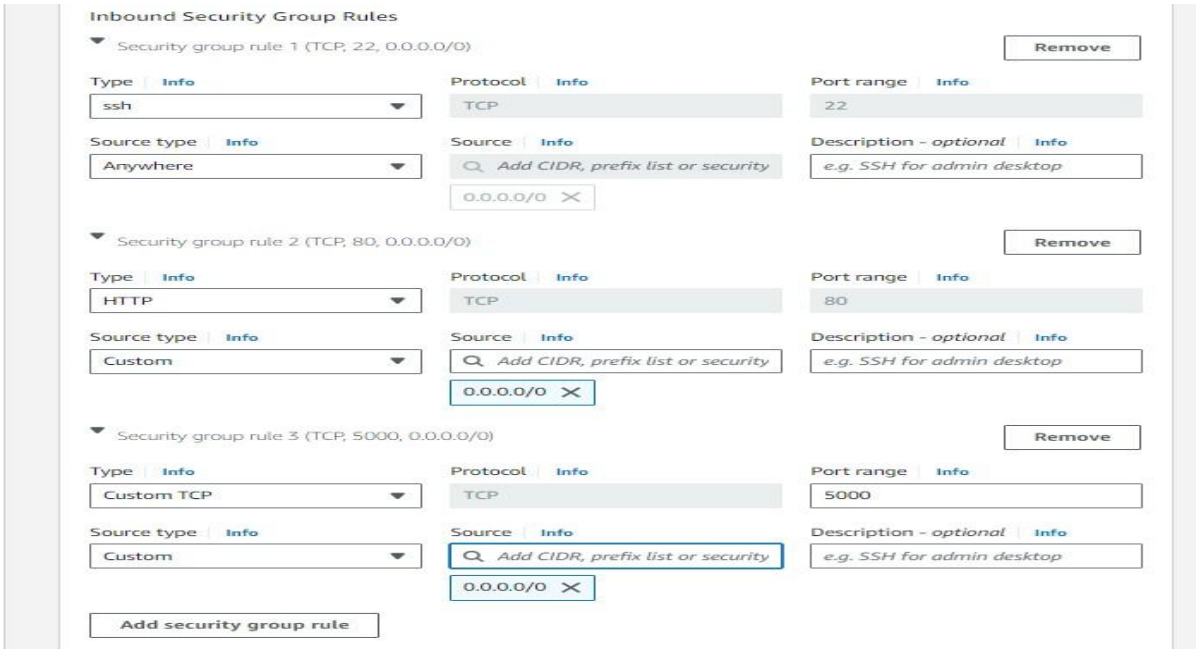

Create key pair
Key pair name
Key pairs allow you to connect to your instance securely.
InstantLibrary
The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.
Key pair type
RSA
RSA encrypted private and public key pair
ED25519
ED25519 encrypted private and public key pair
Private key file format
.pem
For use with OpenSSH
.ppk
For use with PuTTY
When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. Learn more
Cancel
Create key pair

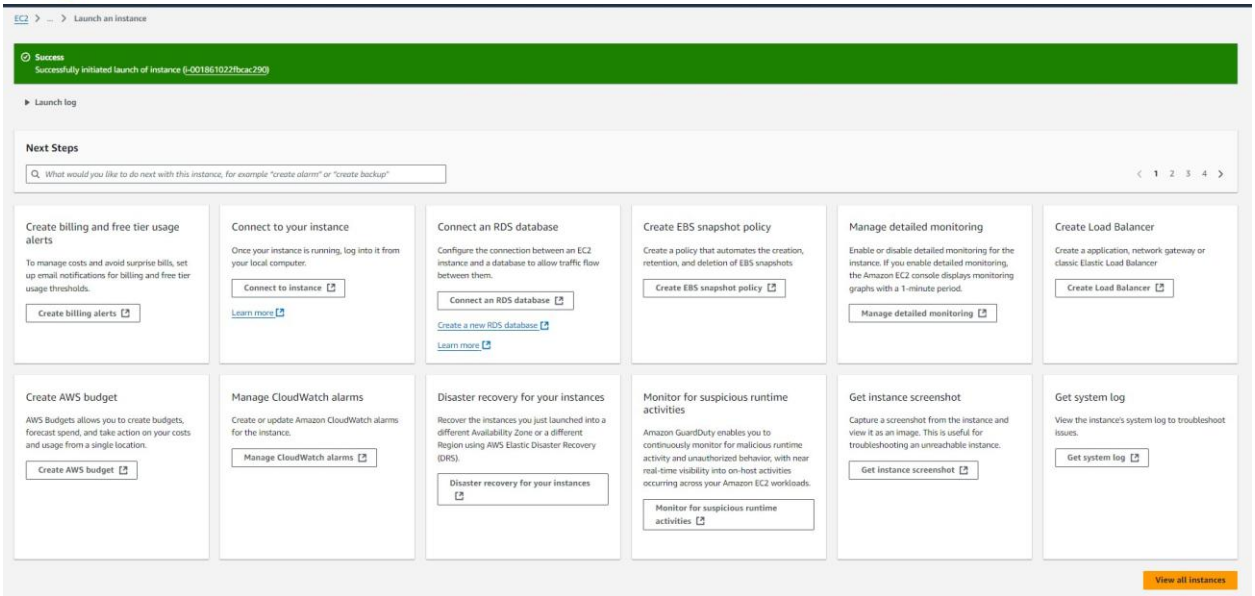

Homemade.pem


Description
Amazon Linux 2023 is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.
Architecture
64-bit (x86)
Boot mode
uefi-preferred
AMI ID
ami-078264b8ba71bc45e
Username
ec2-user
Verified provider
Instance type Info | Get advice
Instance type
t2.micro
Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Linux base pricing: 0.0124 USD per Hour
On-Demand Windows base pricing: 0.017 USD per Hour
On-Demand RHEL base pricing: 0.0268 USD per Hour
On-Demand SUSE base pricing: 0.0124 USD per Hour
All generations
Compare instance types
Additional costs apply for AMIs with pre-installed software
Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
InstantLibrary
Create new key pair
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2023 AMI 2023.5.2...read more
ami-078264b8ba71bc45e
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Preview code
Launch instance

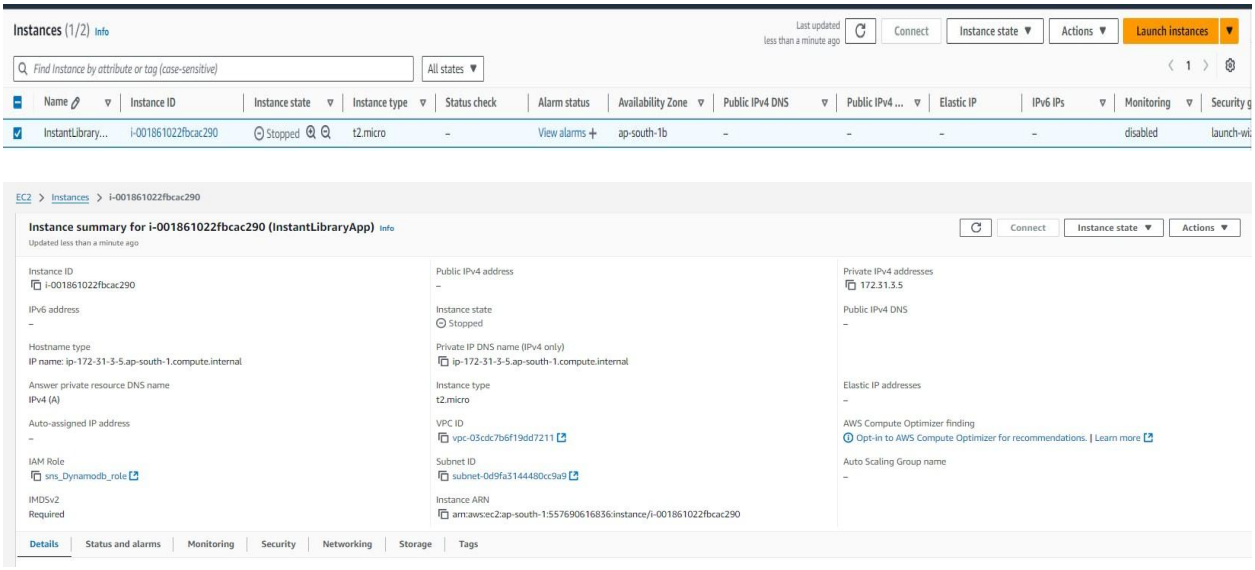
- **Activity 6.2:Configure security groups for HTTP, and SSH access.**

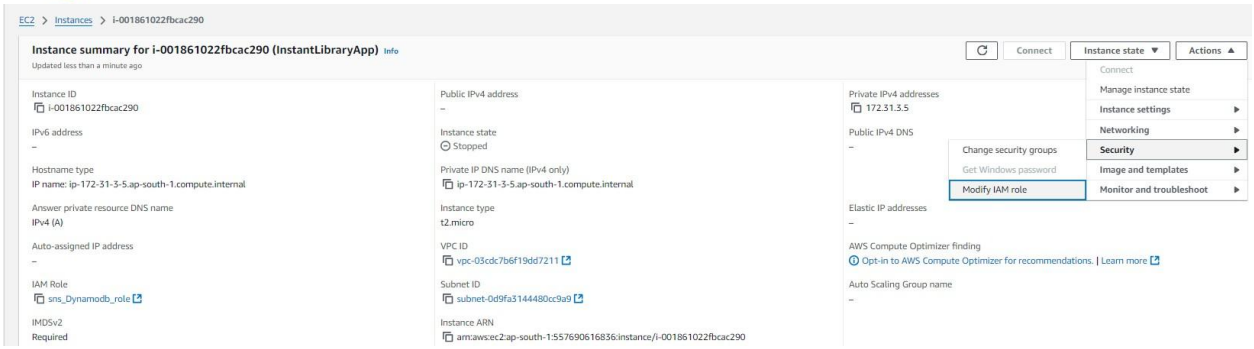


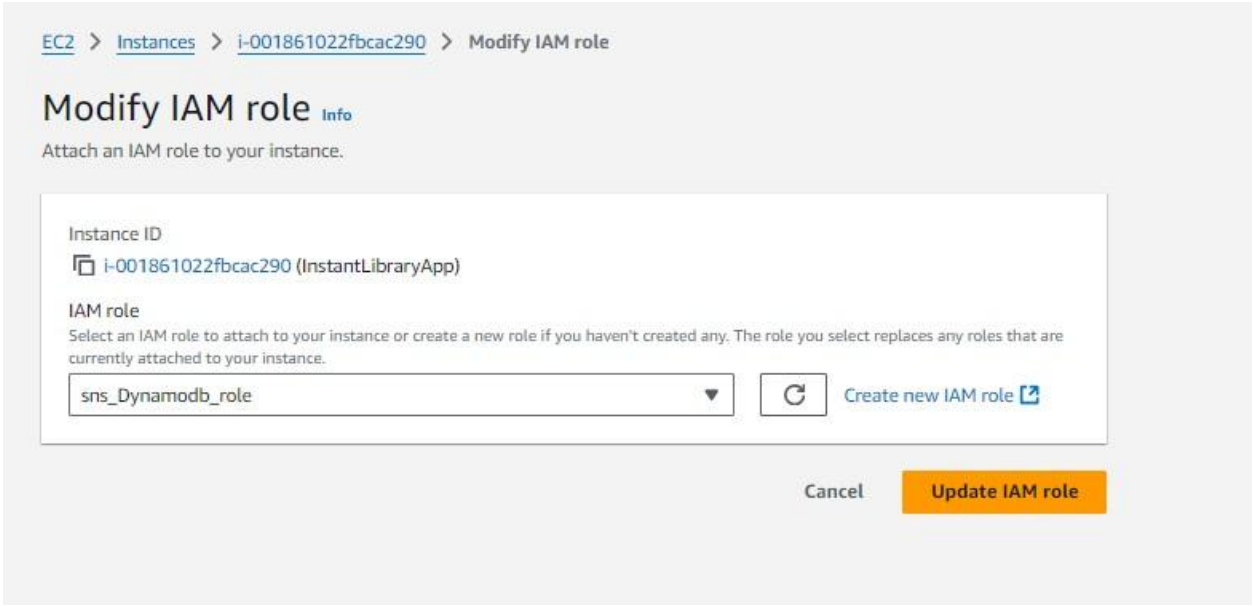




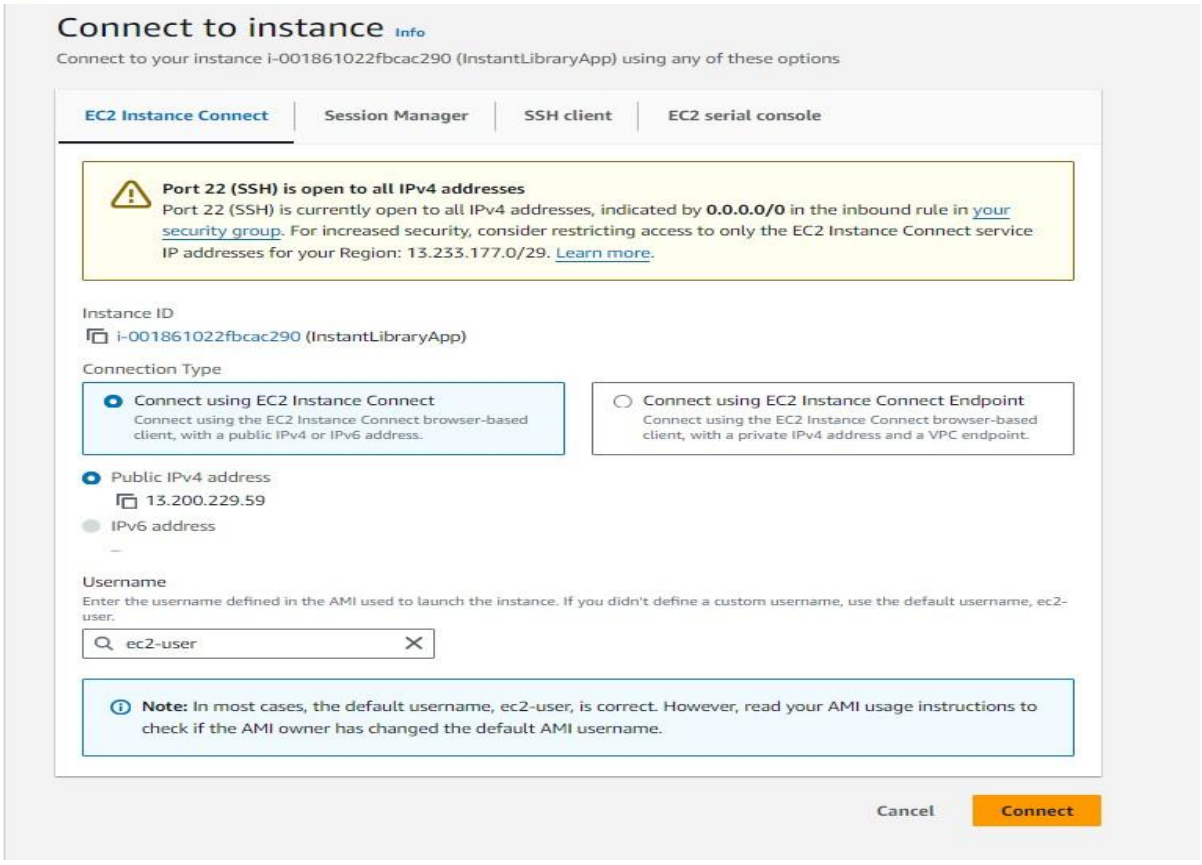
- To connect to EC2 using **EC2 Instance Connect**, start by ensuring that an **IAM role** is attached to your EC2 instance. You can do this by selecting your instance, clicking on **Actions**, then navigating to **Security** and selecting **Modify IAM Role** to attach the appropriate role. After the IAM role is connected, navigate to the **EC2** section in the **AWS Management Console**. Select the **EC2 instance** you wish to connect to. At the top of the **EC2 Dashboard**, click the **Connect** button. From the connection methods presented, choose **EC2 Instance Connect**. Finally, click **Connect** again, and a new browser-based terminal will open, allowing you to access your EC2 instance directly from your browser.

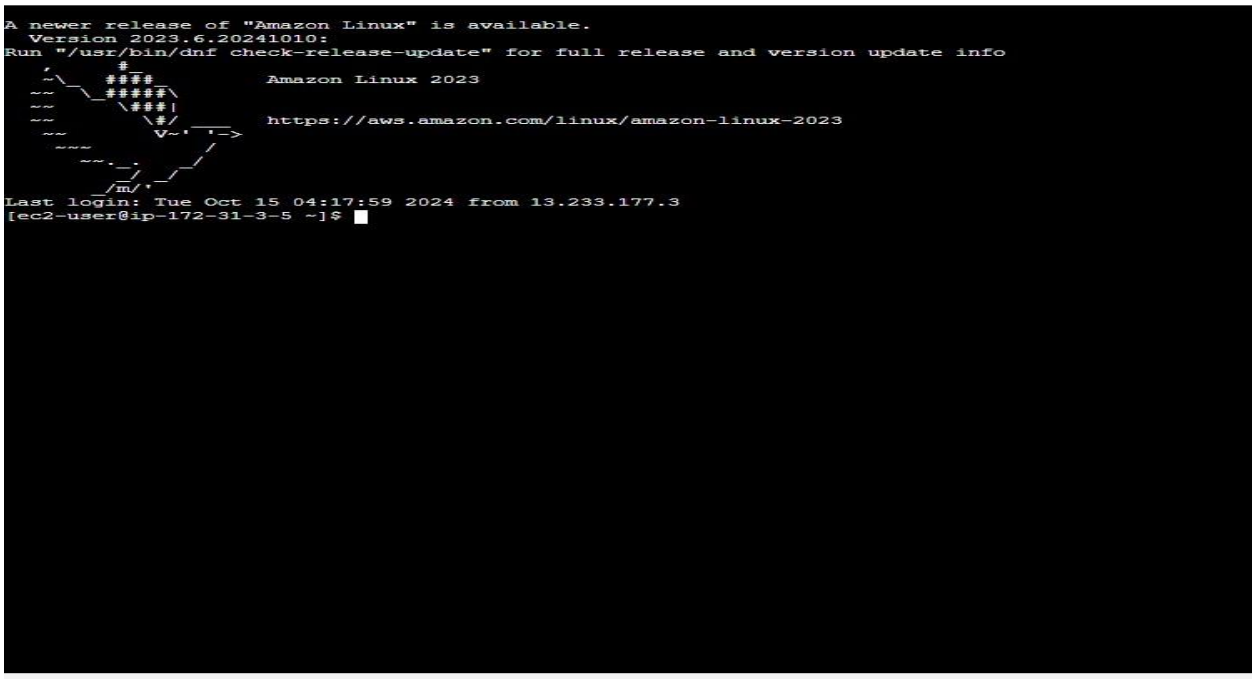






- Now connect the EC2 with the files


Connect to instance Info
Connect to your instance i-001861022fbcac290 (InstantLibraryApp) using any of these options
EC2 Instance Connect
Session Manager
SSH client
EC2 serial console
Port 22 (SSH) is open to all IPv4 addresses
Port 22 (SSH) is currently open to all IPv4 addresses, indicated by 0.0.0.0/0 in the inbound rule in your security group. For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 13.233.177.0/29. Learn more.
Instance ID
i-001861022fbcac290 (InstantLibraryApp)
Connection Type
Connect using EC2 Instance Connect
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 or IPv6 address.
Connect using EC2 Instance Connect Endpoint
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.
Public IPv4 address
13.200.229.59
IPv6 address
Username
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ec2-user.
ec2-user
Note: In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.
Cancel
Connect


A newer release of "Amazon Linux" is available.
Version 2023.6.20241010:
Run "/usr/bin/dnf check-release-update" for full release and version update info
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
Last login: Tue Oct 15 04:17:59 2024 from 13.233.177.3
[ec2-user@ip-172-31-3-5 ~]$
i-001861022fbcac290 (InstantLibraryApp)
PublicIPs: 13.201.74.42 PrivateIPs: 172.31.3.5

Milestone 7: Deployment on EC2

Activity 7.1: Install Software on the EC2 Instance

Install Python3, Flask, and Git:

On Amazon Linux 2:

```
sudo yum update -y

sudo yum install python3 git

sudo pip3 install flask boto3
```

Verify Installations:

```
flask --version

git --version
```

Activity 7.2:Clone Your Flask Project from GitHub

Clone your project repository from GitHub into the EC2 instance using Git.

Run: 'git clone https://github.com/your-github-username/your-repository-name.git'

Note: change your-github-username and your-repository-name with your credentials

here: 'git clone https://github.com/NehaSai-Velpula /HomemadePickles_snacks.git'

- This will download your project to the EC2 instance.

To navigate to the project directory, run the following command:

```
cd HomemadePickles_snacks
```

Once inside the project directory, configure and run the Flask application by executing the following command with elevated privileges:

Run the Flask Application

```
sudo flask run --host=0.0.0.0 --port=80
```

```
A newer release of "Amazon Linux" is available.
  Version 2023.6.20241010:
Run "/usr/bin/dnf check-release-update" for full release and version update info
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
Last login: Tue Oct 15 04:17:59 2024 from 13.233.177.3
[ec2-user@ip-172-31-3-5 ~]$ git clone https://github.com/AlekhyaPenubakula/InstantLibrary.git
fatal: destination path 'InstantLibrary' already exists and is not an empty directory.
[ec2-user@ip-172-31-3-5 ~]$ cd InstantLibrary
[ec2-user@ip-172-31-3-5 InstantLibrary]$ cd InstantLibrary
[ec2-user@ip-172-31-3-5 InstantLibrary]$ flask run --host=0.0.0.0 --port=80
 * Debug mode: off
Permission denied
[ec2-user@ip-172-31-3-5 InstantLibrary]$ ^C
[ec2-user@ip-172-31-3-5 InstantLibrary]$ ^C
[ec2-user@ip-172-31-3-5 InstantLibrary]$ sudo flask run --host=0.0.0.0 --port=80
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:80
 * Running on http://172.31.3.5:80
Press CTRL+C to quit
^C[ec2-user@ip-172-31-3-5 InstantLibrary]$
[ec2-user@ip-172-31-3-5 InstantLibrary]$ sudo flask run --host=0.0.0.0 --port=80
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:80
 * Running on http://172.31.3.5:80
Press CTRL+C to quit
183.82.125.56 - - [22/Oct/2024 07:42:00] "GET / HTTP/1.1" 302 -
183.82.125.56 - - [22/Oct/2024 07:42:01] "GET /register HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:01] "GET /static/images/library3.jpg HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:01] "GET /favicon.ico HTTP/1.1" 404 -
183.82.125.56 - - [22/Oct/2024 07:42:16] "GET /login HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:16] "GET /static/images/library3.jpg HTTP/1.1" 304 -
183.82.125.56 - - [22/Oct/2024 07:42:21] "POST /login HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:24] "GET /login HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:27] "POST /login HTTP/1.1" 302 -
183.82.125.56 - - [22/Oct/2024 07:42:28] "GET /home-page HTTP/1.1" 200 -
```

i-001861022fbcac290 (InstantLibraryApp)

PublicIPs: 13.201.74.42 PrivateIPs: 172.31.3.5

Verify the Flask app is running: http://your-ec2-public-ip

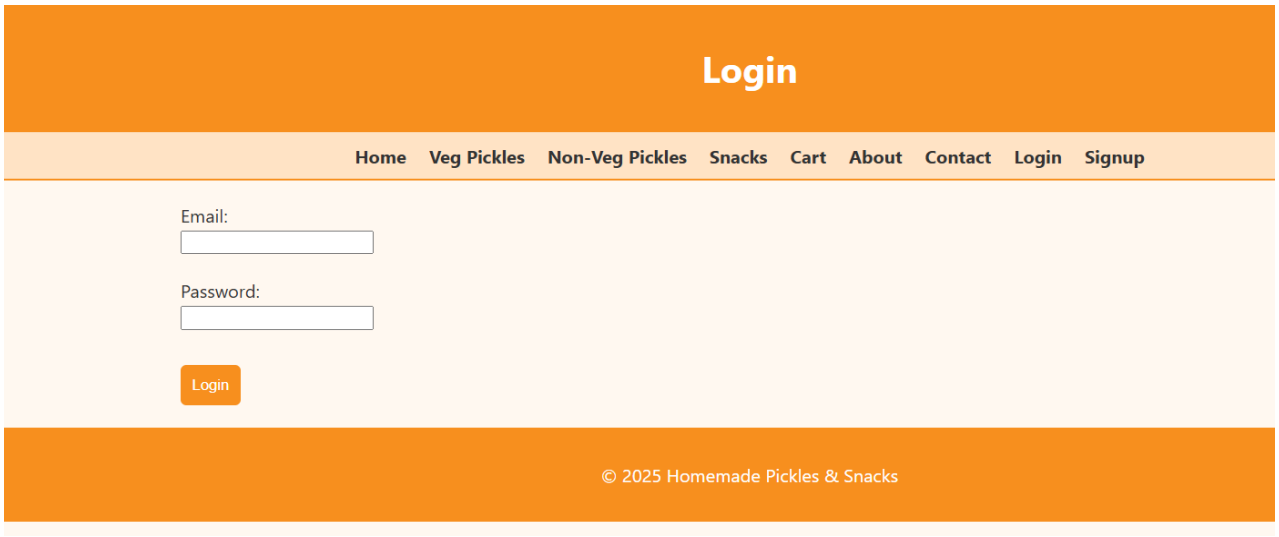
- Run the Flask app on the EC2 instance


```
[ec2-user@ip-172-31-3-5 InstantLibrary]$ sudo flask run --host=0.0.0.0 --port=80
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:80
 * Running on http://172.31.3.5:80
Press CTRL+C to quit
183.82.125.56 - - [22/Oct/2024 07:42:00] "GET / HTTP/1.1" 302 -
183.82.125.56 - - [22/Oct/2024 07:42:01] "GET /register HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:01] "GET /static/images/library3.jpg HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:01] "GET /favicon.ico HTTP/1.1" 404 -
183.82.125.56 - - [22/Oct/2024 07:42:16] "GET /login HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:16] "GET /static/images/library3.jpg HTTP/1.1" 304 -
183.82.125.56 - - [22/Oct/2024 07:42:21] "POST /login HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:24] "GET /login HTTP/1.1" 200 -
183.82.125.56 - - [22/Oct/2024 07:42:27] "POST /login HTTP/1.1" 302 -
183.82.125.56 - - [22/Oct/2024 07:42:28] "GET /home-page HTTP/1.1" 200 -
```

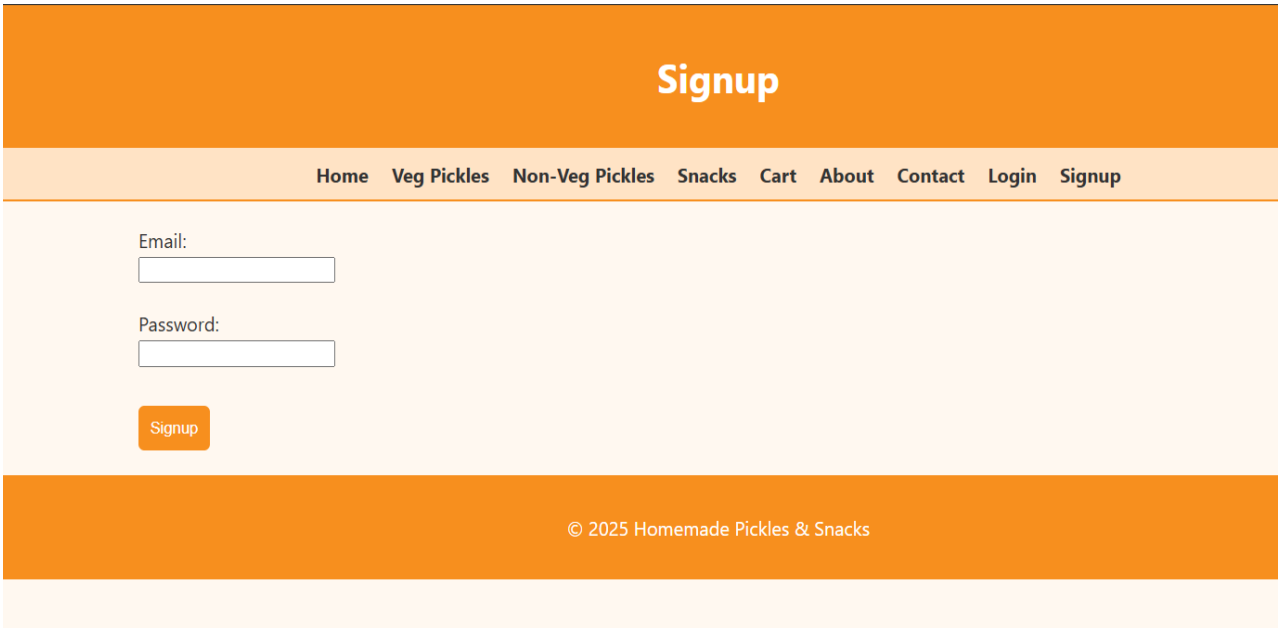
Milestone 8: Testing and Deployment

- **Activity 8.1: Conduct functional testing to verify user registration, login, book requests, and notifications.**

Login Page:

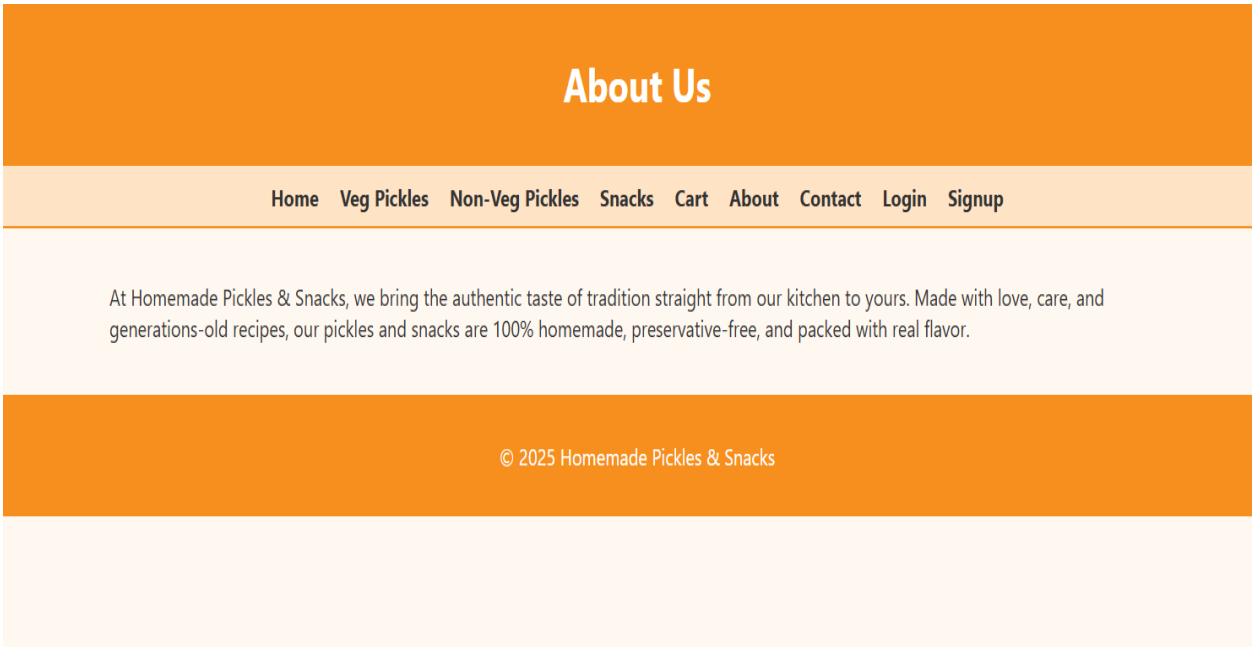


Signup Page:

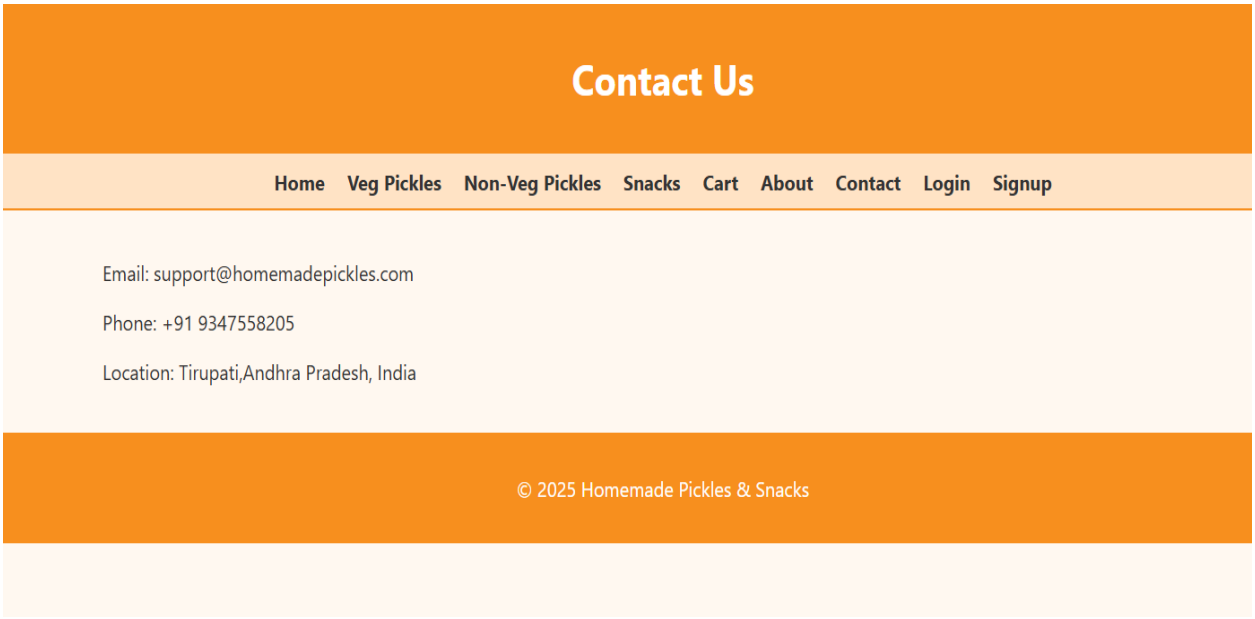


Home page:

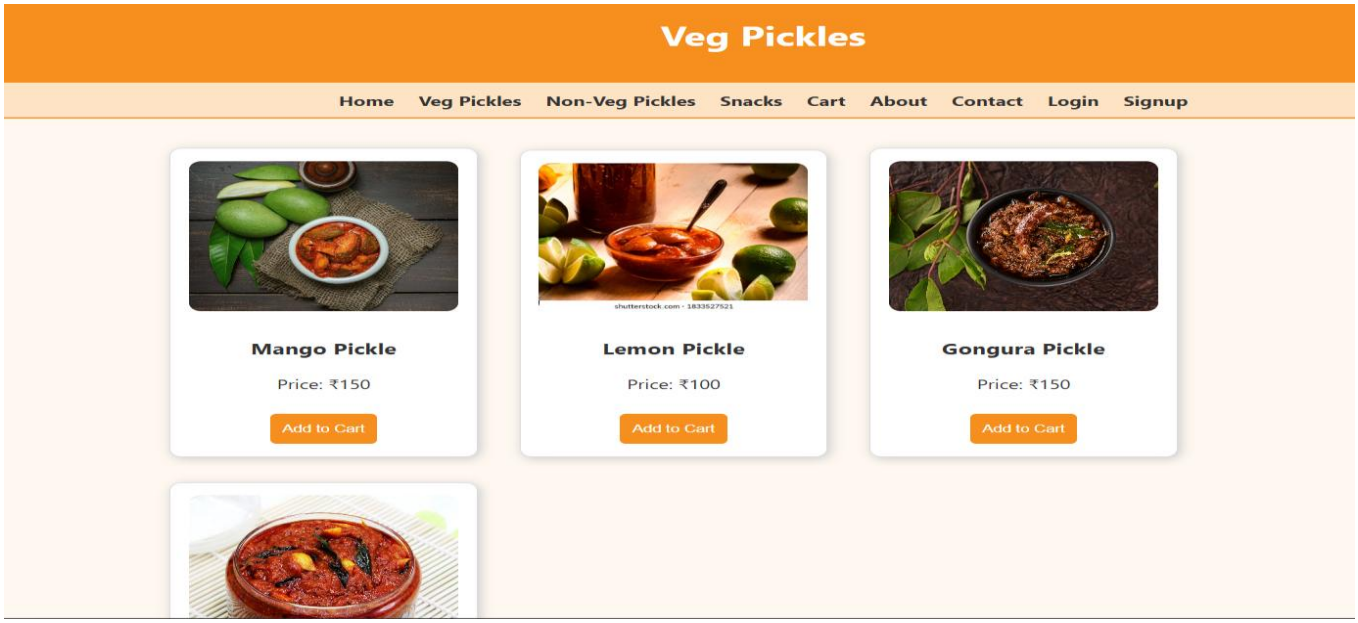
About Us page:



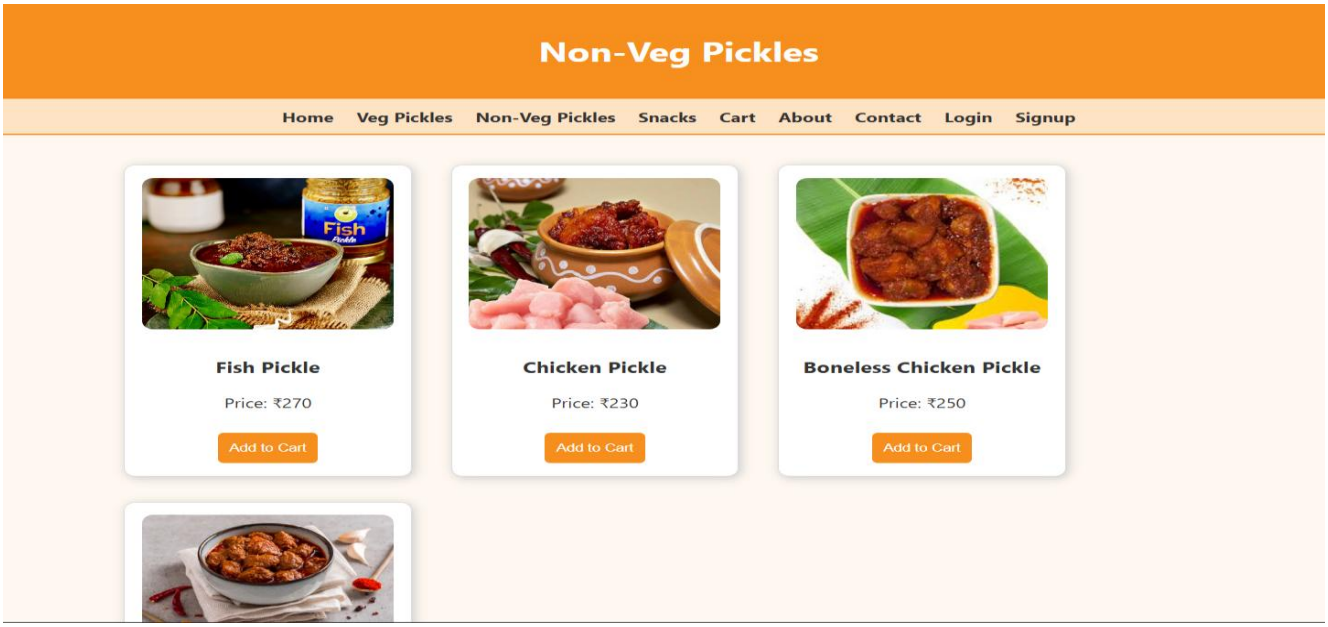
Contact Page:



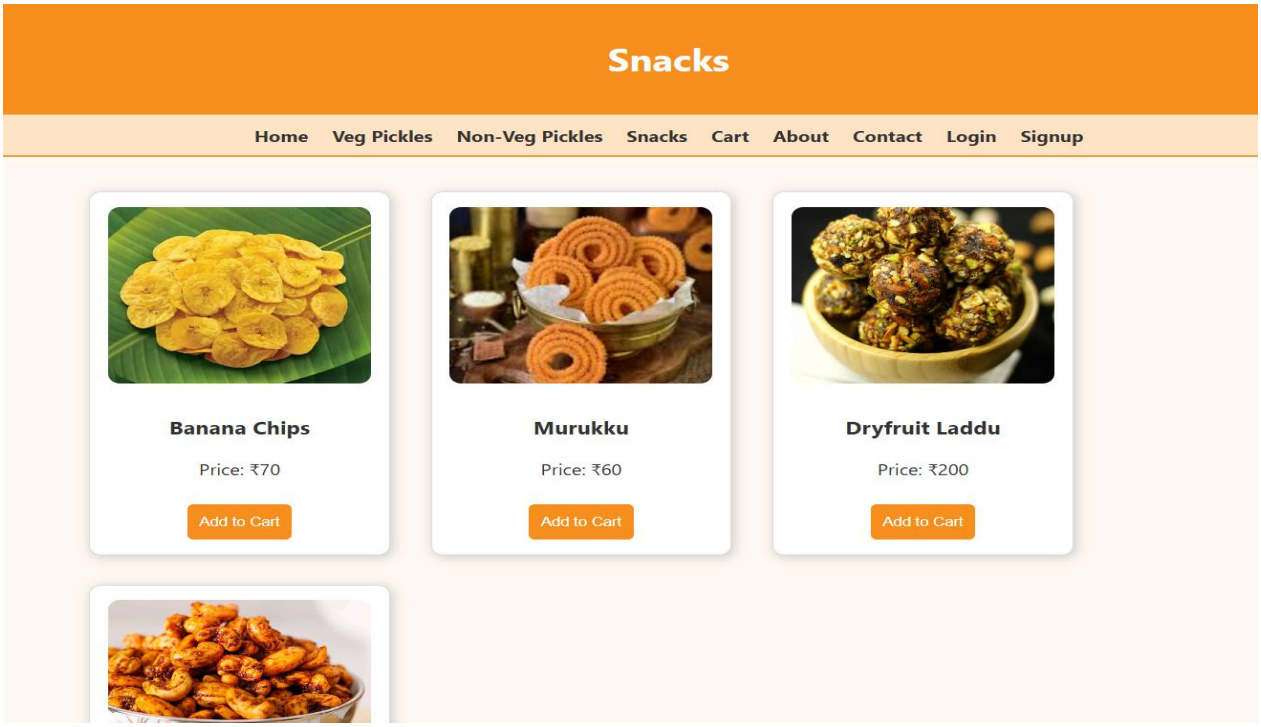
Veg pickles Page:



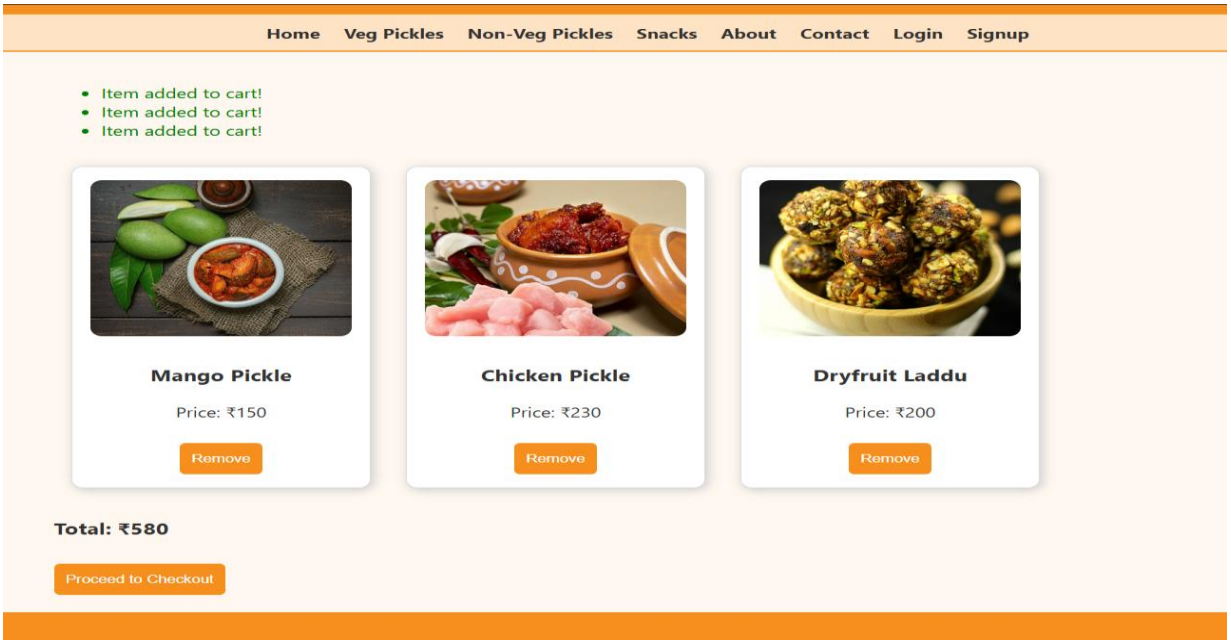
Non veg pickles Page:



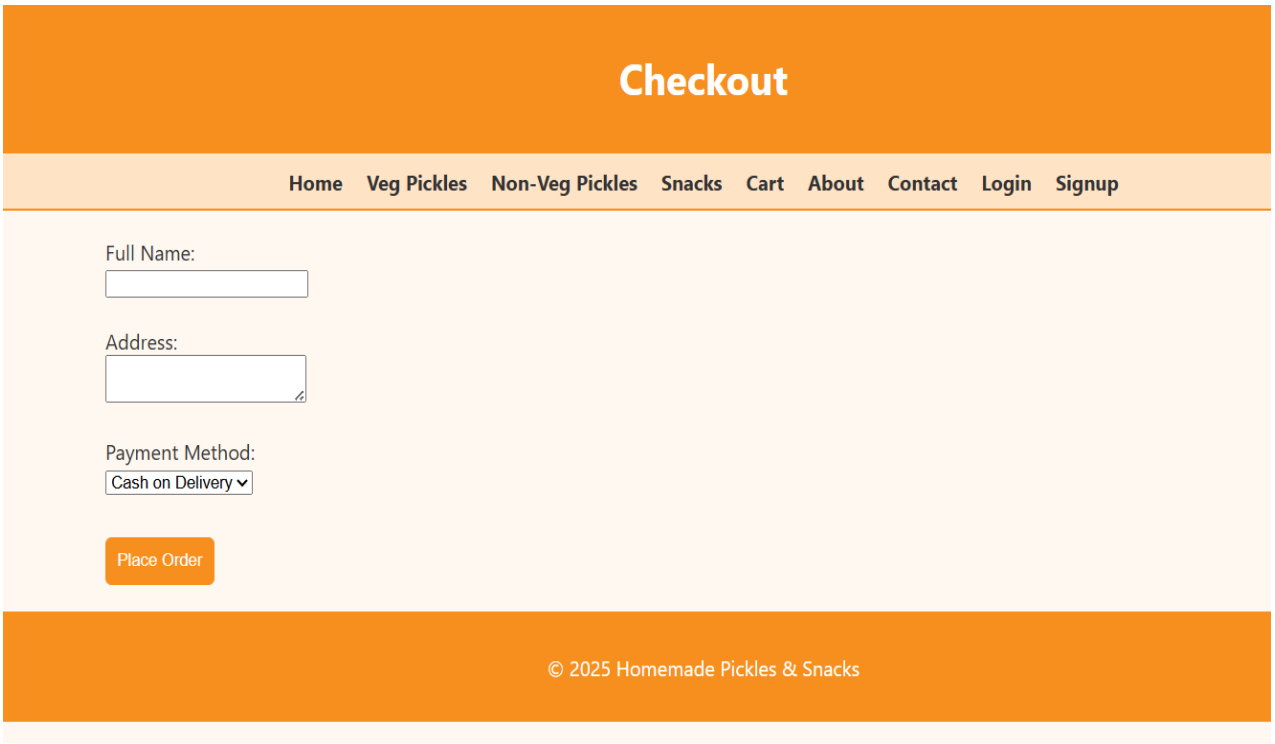
Snacks Page:



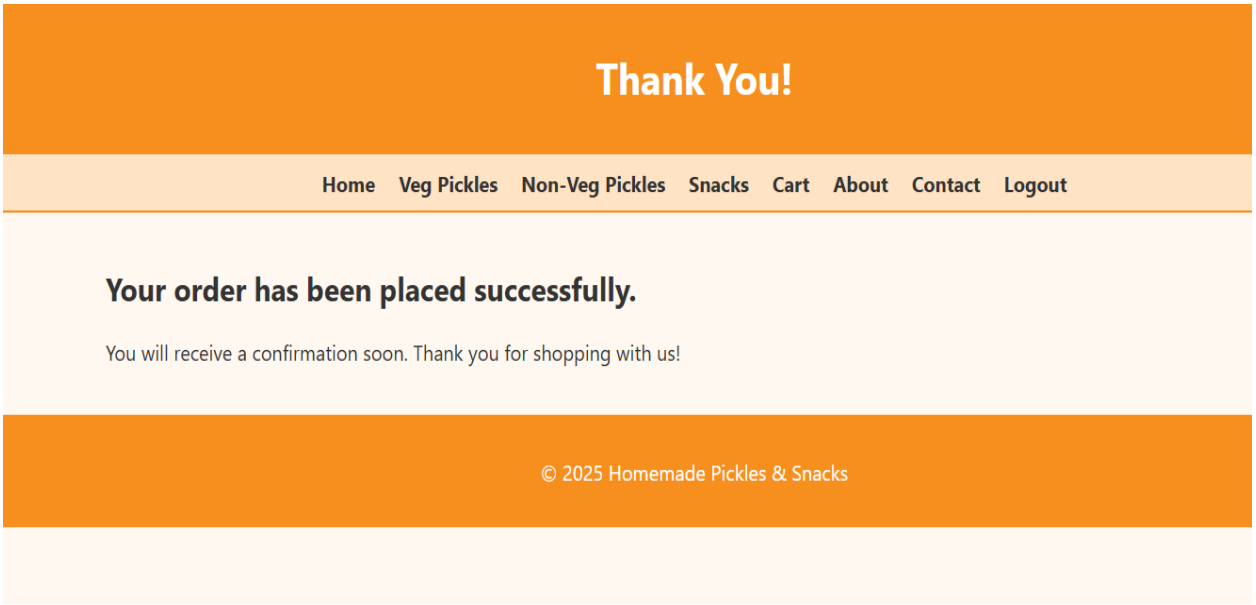
Cart Page:



Check out Page:



Success Page:



Conclusion:

The Homemade Pickles and Snacks platform has been meticulously crafted to deliver a seamless and delightful experience for food enthusiasts seeking authentic, handcrafted flavors. By leveraging modern web technologies such as Flask for backend logic, secure user authentication, and dynamic cart management, the platform ensures a user-friendly interface for browsing, customizing, and ordering artisanal pickles and snacks.

The integration of cloud-ready architecture (e.g., AWS for future scalability) and robust session management allows the platform to handle high traffic efficiently while maintaining real-time updates for orders and inventory. Features like weight-based pricing, category-specific searches, and instant checkout streamline the shopping process, empowering customers to explore a diverse range of traditional and innovative recipes with ease.

This project addresses the growing demand for homemade, preservative-free food products by bridging the gap between small-scale producers and discerning customers. The platform's intuitive design and secure payment workflows enhance trust and convenience, while backend tools enable effortless inventory tracking and order fulfillment for administrators.

By combining time-honored recipes with modern e-commerce capabilities, this website not only preserves culinary heritage but also adapts to the digital age, ensuring that every jar of pickle or snack reaches customers with the same care and quality as a homemade meal. As the platform

evolves, it stands ready to scale, introduce new product lines, and foster a community of food lovers united by a passion for authentic flavors.

In essence, this project redefines the way homemade delicacies are shared and enjoyed, offering a flavorful bridge between tradition and technology.