

TravelGo: A Cloud-Powered Real-Time Travel Booking Platform Using AWS

Project Description:

TravelGo is a full-stack, cloud-based travel booking platform designed to simplify the process of reserving buses, trains, flights, and hotels through a unified interface. Built using Flask as the backend framework, the application is deployed on Amazon EC2 and leverages DynamoDB for efficient storage of user data and bookings. TravelGo allows users to register, log in, search for transportation and accommodation options, and book their travel with ease. Once a booking is confirmed or cancelled, users receive real-time email notifications powered by AWS Simple Notification Service (SNS), keeping them informed throughout their journey.

The platform's user-friendly interface supports dynamic seat selection for buses, hotel filtering based on preferences such as luxury or budget, and provides booking summaries along with centralized cancellation management. By combining cloud scalability, responsive design, and secure session handling, TravelGo delivers a seamless and real-time travel planning experience for users.

Scenarios:

Scenario 1: Hassle-Free Multi-Mode Travel Booking Experience

TravelGo offers users a unified platform to search and book buses, trains, flights, and hotels all in one place. For instance, a user planning a trip from Hyderabad to Bangalore can log in, select their preferred mode of transport, choose from available options, and proceed to booking. Flask manages the backend operations such as retrieving travel listings and processing user input in real-time. Hosted on AWS EC2, the platform remains responsive even during high-traffic hours like weekends or holiday seasons, allowing multiple users to browse and book without delay.

Scenario 2: Real-Time Booking Confirmation with AWS SNS

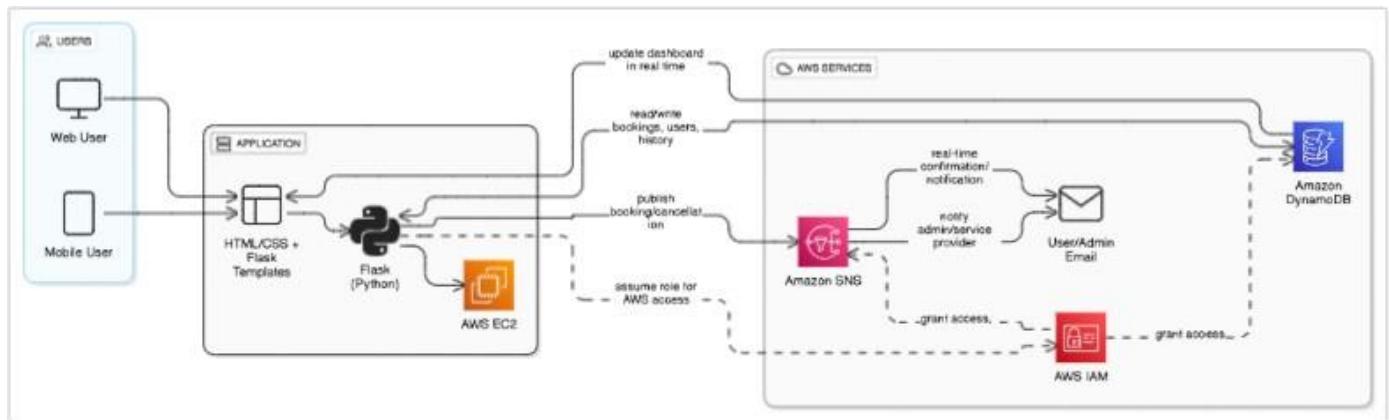
Once a booking is made—whether it's a train ticket or a hotel stay—TravelGo uses AWS SNS to instantly notify the user. For example, after a student books a hotel in Chennai, SNS sends a real-time email notification confirming the booking with all the relevant details. This notification is triggered from the Flask backend after the booking is successfully recorded in DynamoDB. Additionally, SNS can alert minor service providers, ensuring transparency and real-time updates on every transaction.

Scenario 3: Dynamic Dashboard with Personal Travel History

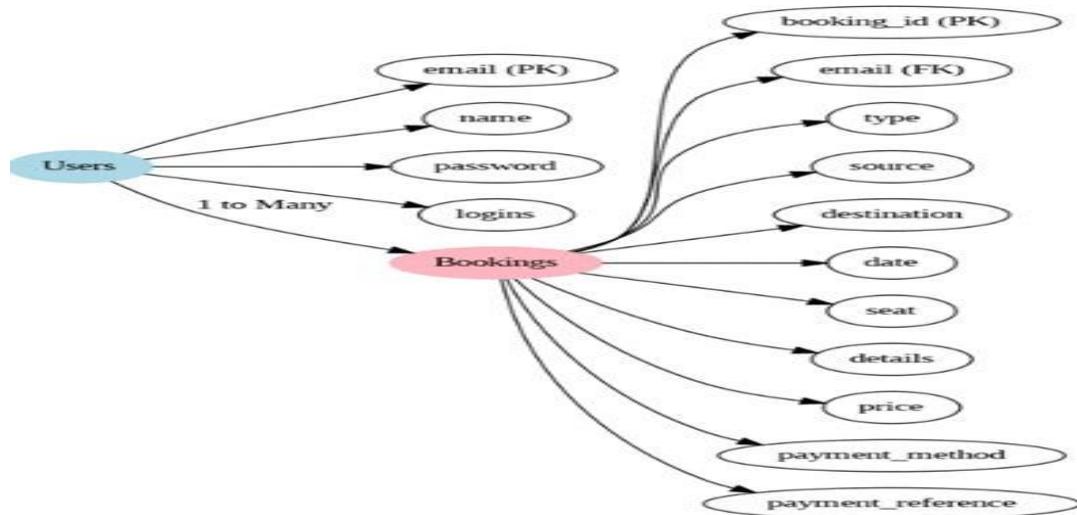
TravelGo features a dynamic user dashboard that displays all past and upcoming bookings for the logged-in user. For example, a user who has booked a flight and a hotel can view these bookings categorized by type, along with dates, price, and cancellation options. Flask fetches this data from AWS DynamoDB, which persistently stores all user bookings. The dashboard UI, powered by responsive HTML/CSS and Flask templates, ensures users can review or manage bookings anytime, from any device, with real-time updates and quick cancellation workflows supported.

AWS ARCHITECTURE

This AWS-based architecture powers a scalable and secure web application using Amazon EC2 for hosting the backend, with a lightweight framework like Flask handling core logic. Application data is stored in Amazon DynamoDB, ensuring fast, reliable access, while user access is managed through AWS IAM for secure authentication and control. Real-time alerts and system notifications are enabled via Amazon SNS, enhancing communication and user engagement.



Entity Relationship (ER) Diagram:



Pre-requisites:

- AWS Account Setup :
<https://docs.aws.amazon.com/accounts/latest/reference/getting-started.html>
- AWS IAM (Identity and Access Management) :
<https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html>
- AWS EC2 (Elastic Compute Cloud) :
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>
- AWS DynamoDB :
<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Introduction.html>
- Amazon SNS :
<https://docs.aws.amazon.com/sns/latest/dg/welcome.html>
- Git Documentation :
<https://git-scm.com/doc>
- VSCode Installation:(download the VSCode using the below link or you can get that in Microsoft store)
<https://code.visualstudio.com/download>

Project WorkFlow:

Milestone 1. Backend Development and Application Setup

- Develop the Backend Using Flask.
- Integrate AWS Services Using boto3.

Milestone 2. AWS Account Setup and Login

- Set up an AWS account if not already done.
- Log into the AWS Management Console

Milestone 3. DynamoDB Database Creation and Setup

- Create a DynamoDB Table.
- Configure Attributes for User Data and Book Requests.

Milestone 4. SNS Notification Setup

- Create SNS topics for book request notifications.
- Subscribe users and library staff to SNS email notifications.

Milestone 5. IAM Role Setup

- Create IAM Role
- Attach Policies

Milestone6.EC2Instance Setup

- Launch an EC2 instance to host the Flask application.
- Configure security groups for HTTP and SSH access.

Milestone7.Deployment on EC2

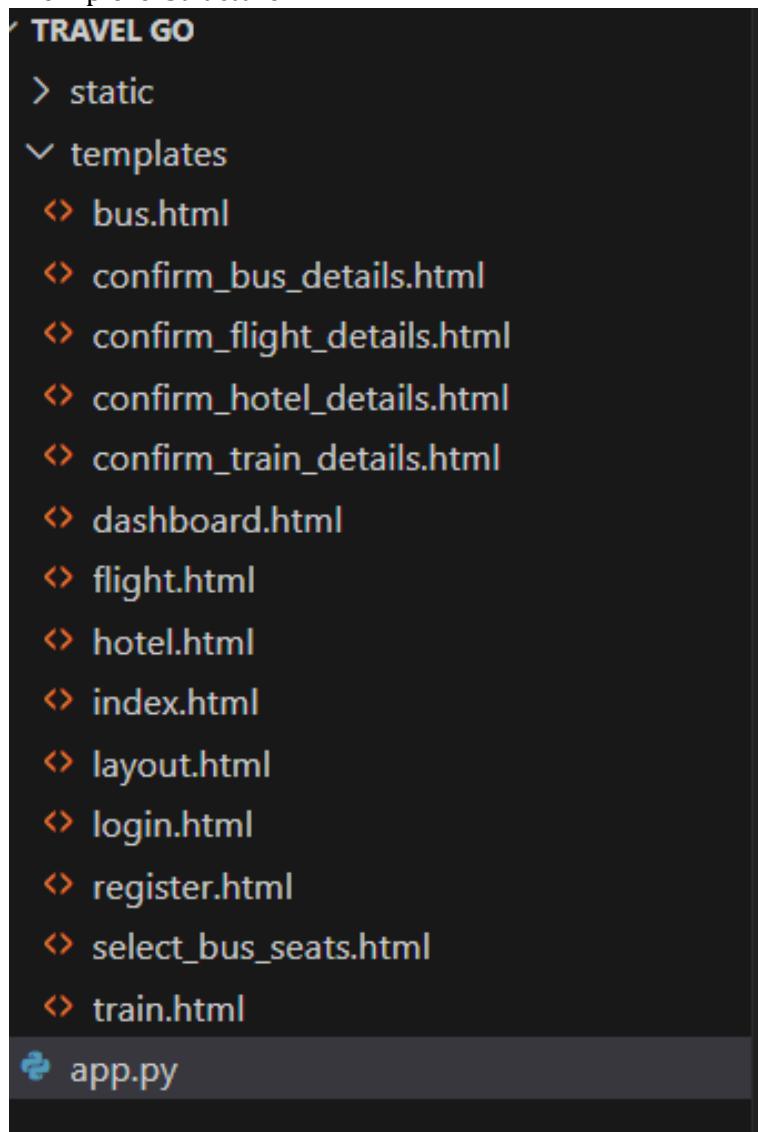
- Upload Flask Files
- Run the Flask App

Milestone8.Testing and Deployment

- Conduct functional testing to verify user registration, login, book requests, and notifications.

Milestone1:Backend Development and Application Set Up• **Activity1.1:** Develop the Backend Using Flask

1. File Explorer Structure



```
/ TRAVEL GO
  > static
  < templates
    <> bus.html
    <> confirm_bus_details.html
    <> confirm_flight_details.html
    <> confirm_hotel_details.html
    <> confirm_train_details.html
    <> dashboard.html
    <> flight.html
    <> hotel.html
    <> index.html
    <> layout.html
    <> login.html
    <> register.html
    <> select_bus_seats.html
    <> train.html
  <> app.py
```

Description: Organize the project with HTML templates for each feature (e.g., login, wishlist, quiz, checkout) under the templates folder and manage backend logic in app.py .

Description of the code:

? FlaskApp Initialization

```
# app.py > ...
1  from flask import Flask, render_template, request, redirect, url_for, session, jsonify, flash
2  import boto3
3  from boto3.dynamodb.conditions import Key, Attr
4  from werkzeug.security import generate_password_hash, check_password_hash
5  from datetime import datetime
6  from decimal import Decimal
7  import uuid
8  import random
9
```

- Import essential Flask modules for web handling, Boto3 for AWS integration, Werkzeug for password hashing, and datetime for timestamp management.

```
app = Flask(__name__)
app.secret_key = 'your_secret_key_here' #
```

- Initialize the Flask application and set a secret key to securely manage user sessions and form data.

```
# AWS Setup using IAM Role
REGION = 'us-east-1' # Replace with your actual AWS region
dynamodb = boto3.resource('dynamodb', region_name=REGION)
sns_client = boto3.client('sns', region_name=REGION)

users_table = dynamodb.Table('travelgo_users')
trains_table = dynamodb.Table('trains') # Note: This table is declared
bookings_table = dynamodb.Table('bookings')
```

- Connect to DynamoDB using Boto3 and define references to the UserTable and WishlistTable for user and wishlist data operations.

Routes for Core Functionalities:

```

# Routes
@app.route('/')
def index():
    return render_template('index.html')

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

        # Check if user already exists
        # This uses get_item on the primary key 'email', so no GSI needed.
        existing = users_table.get_item(Key={'email': email})
        if 'Item' in existing:
            flash('Email already exists!', 'error')
            return render_template('register.html')

        # Hash password and store user
        hashed_password = generate_password_hash(password)
        users_table.put_item(Item={'email': email, 'password': hashed_password})
        flash('Registration successful! Please log in.', 'success')
        return redirect(url_for('login'))
    return render_template('register.html')

```

Create the home and registration routes, where the registration route securely hashes user passwords and stores user data in DynamoDB upon form submission.

Login route: Implement the user login route to validate credentials using DynamoDB and securely manage session data while updating the user's login count.

```

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

        # Retrieve user by email (primary key)
        user = users_table.get_item(Key={'email': email})

        # Authenticate user
        if 'Item' in user and check_password_hash(user['Item']['password'], password):
            session['email'] = email
            flash('Logged in successfully!', 'success')
            return redirect(url_for('dashboard'))
        else:
            flash('Invalid email or password!', 'error')
            return render_template('login.html')
    return render_template('login.html')

```

- **DashboardRoute:** Secure the user dashboard and implement a route to add items to the wishlist, storing them in DynamoDB with item details and a timestamp.

```

@app.route('/dashboard')
def dashboard():
    if 'email' not in session:
        return redirect(url_for('login'))
    user_email = session['email']

    # Query bookings for the logged-in user using the primary key 'user_email'
    # No GSI is needed here as 'user_email' is likely the partition key for the bookings_table.
    response = bookings_table.query(
        KeyConditionExpression=Key('user_email').eq(user_email),
        ScanIndexForward=False # Get most recent bookings first
    )
    bookings = response.get('Items', [])

    # Convert Decimal types from DynamoDB to float for display if necessary
    for booking in bookings:
        if 'total_price' in booking:
            try:
                booking['total_price'] = float(booking['total_price'])
            except (TypeError, ValueError):
                booking['total_price'] = 0.0 # Default value if conversion fails
    return render_template('dashboard.html', username=user_email, bookings=bookings)

#9  def final_confirm_bus_booking():
#10     flash(f"Failed to confirm bus booking due to database error: {e}", 'error')
#11     return redirect(url_for("bus"))
#12
#13     send_sms_notification(
#14         subject="Bus Booking Confirmed",
#15         message=f"Dear {booking['user_email']},\nYour bus from {booking['source']} to {booking['destination']} on {booking['travel_da
#16
#17     flash("Bus booking confirmed successfully!", 'success')
#18     return redirect(url_for('dashboard'))

@app.route('/flight')
def flight():
    if 'email' not in session:
        return redirect(url_for('login'))
    return render_template('flight.html')

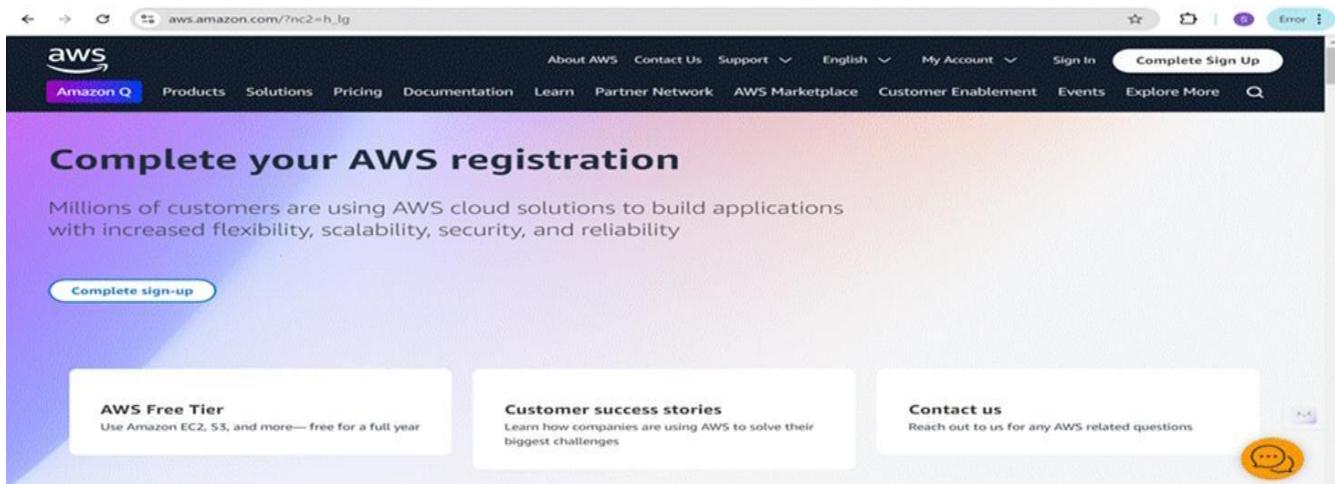
@app.route('/confirm_flight_details')
def confirm_flight_details():
    if 'email' not in session:
        return redirect(url_for('login')) # Ensure user is logged in
    booking = {
        'flight_id': request.args['flight_id'],
        'airline': request.args['airline'],
        'flight_number': request.args['flight_number'],
        'source': request.args['source'],
        'destination': request.args['destination'],
        'departure_time': request.args['departure'],
        'arrival_time': request.args['arrival'],
        'travel_date': request.args['date'],
        'num_persons': int(request.args['passengers']),
        'price_per_person': Decimal(request.args['price']), # convert to Decimal for consistency
    }
    booking['total_price'] = booking['price_per_person'] * booking['num_persons']
    session['pending_booking'] = booking # Store for final confirmation

#19  @app.errorhandler
#20  def cancel_booking():
#21      booking_id = request.form.get('booking_id')
#22      user_email = session['email']
#23      booking_date = request.form.get('booking_date') # This is crucial as it's the sort key
#
#24      if not booking_id or not booking_date:
#25          flash("Error: Booking ID or Booking Date is missing for cancellation.", 'error')
#26          return redirect(url_for('dashboard'))
#
#27      try:
#28          # Delete item using the primary key (user_email and booking_date)
#29          # This does not use GSI, so it remains unchanged.
#30          bookings_table.delete_item(
#31              Key={'user_email': user_email, 'booking_date': booking_date}
#32          )
#33          flash(f"Booking {booking_id} cancelled successfully!", 'success')
#34      except Exception as e:
#35          flash(f"Failed to cancel booking {booking_id}: {str(e)}", 'error')
#
#36      return redirect(url_for('dashboard'))
#
#37  if __name__ == '__main__':
#38      # IMPORTANT: In a production environment, disable debug mode and specify a production-ready host.
#39      app.run(debug=True, host='0.0.0.0')

```

- **Milestone2:AWS Account Setup and Login.**

- **Activity2.1:** Set up an AWS account if not already done.
 - Signup for an AWS account and configure billing settings.

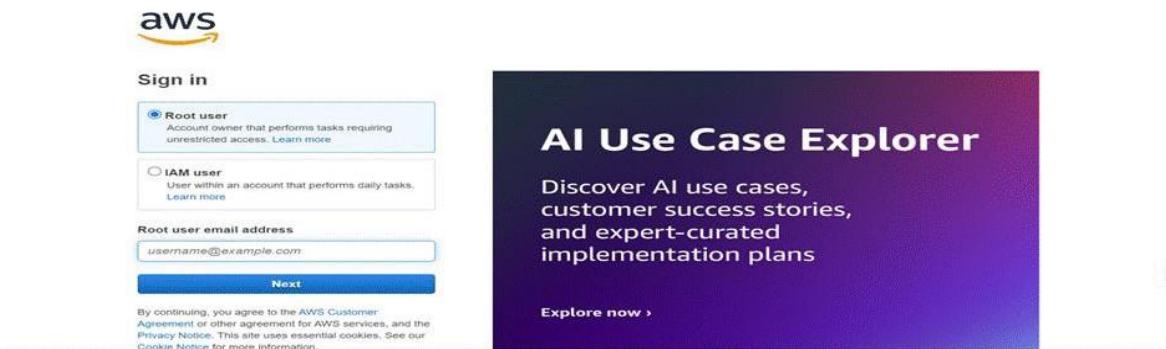


- Click on the "Create an AWS Account" button.
- Follow the prompts to enter your email address and choose a password.
- Provide the required account information, including your name, address, and phone number.
- Enter your payment information. (Note: While AWS offers a free tier, a credit card or debit card is required for verification.)
- Complete the identity verification process.
- Choose a support plan (the basic plan is free and sufficient for starting).
- Once verified, you can sign into your new AWS accounts.



- **Activity2.2:LogintotheAWSManagementConsole**

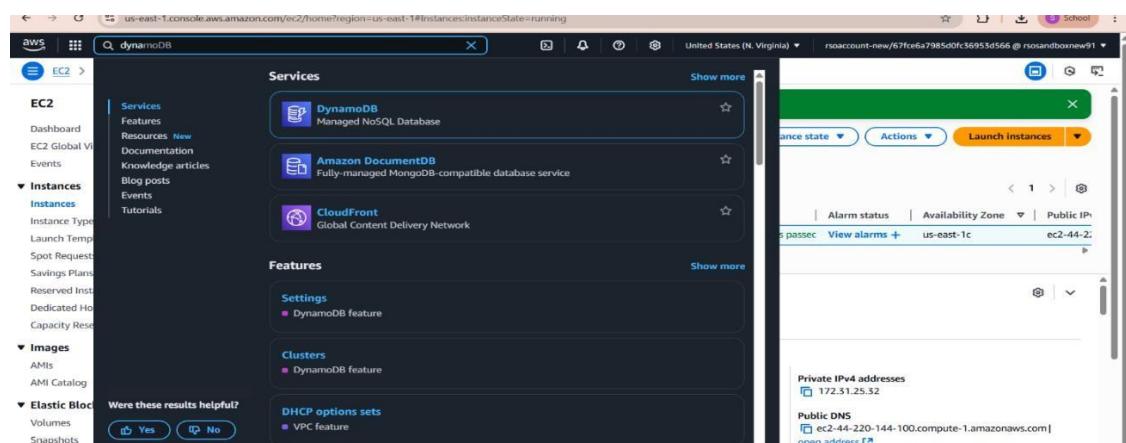
- After setting up your account, log into the [AWS Management Console](#).



Milestone3:DynamoDBDatabaseCreationandSetup

- **Activity3.1:NavigatetotheDynamoDB**

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





The screenshot shows the Amazon DynamoDB console dashboard. The left sidebar includes links for 'Dashboard', 'Tables', 'Explore items', 'PartiQL editor', 'Backups', 'Exports to S3', 'Imports from S3', 'Integrations', 'Reserved capacity', and 'Settings'. The main content area features three panels: 'Favorite tables' (with a search bar and a note to click the star icon to favorite a table), 'Alarms (0)' (with a search bar and a note to click the star icon to favorite an alarm), and 'DAX clusters (0)' (with a search bar and a note to click the star icon to favorite a cluster). To the right, there is a 'Create resources' section with 'Create table' and 'Create DAX cluster' buttons, and a 'What's new' section with two items: 'Amazon DynamoDB global tables with multi-Region strong consistency is now...' (July 1) and 'Amazon DynamoDB Streams adds supports for Kinesis Client Library (KCL) 3.0' (June 11). The bottom of the page includes links for 'CloudShell', 'Feedback', and copyright information: '© 2025, Amazon Web Services, Inc. or its affiliates.' and links for 'Privacy', 'Terms', and 'Cookie preferences'.

The screenshot shows the Amazon DynamoDB console 'Tables' page. The left sidebar includes links for 'Dashboard', 'Tables' (which is selected), 'Explore items', 'PartiQL editor', 'Backups', 'Exports to S3', 'Imports from S3', and 'Integrations'. The main content area shows a table header with columns: Name, Status, Partition key, Sort key, Indexes, Deletion protection, Read capacity mode, Write capacity mode, and Total size. Below the header, a message states 'You have no tables in this account in this AWS Region.' At the top right of the table area are buttons for 'Actions', 'Delete', and 'Create table' (which is highlighted in orange).

Activity3.2:CreateaDynamoDBtableforstoringregistrationdetailsandbook requests.

- CreateUserstablewithpartitionkey“Email”withtypeStringandclickoncreatetables.



aws Search [Alt+S] United States (N. Virginia) rsosaccount-new/67fce6a7985d0fc36953d566 @ rsosandboxnew91 ⓘ ⓘ

DynamoDB > Tables > Create table

Create table

Table details [Info](#)
DynamoDB is a schemaless database that requires only a table name and a primary key when you create the table.

Table name
This will be used to identify your table.

Between 3 and 255 characters, containing only letters, numbers, underscores (_), hyphens (-), and periods (.).

Partition key
The partition key is part of the table's primary key. It is a hash value that is used to retrieve items from your table and allocate data across hosts for scalability and availability.
 String ▾
1 to 255 characters and case sensitive.

Sort key - optional
You can use a sort key as the second part of a table's primary key. The sort key allows you to sort or search among all items sharing the same partition key.
 String ▾
1 to 255 characters and case sensitive.

Table settings

Default settings
The fastest way to create your table. You can modify most of these settings after your table has been created. To learn more about table settings, see [Table settings](#).

Customize settings
Use these advanced features to make DynamoDB work better for your needs.

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Rate your experience with this DynamoDB console. ⭐ ⭐ ⭐ ⭐ ⭐

aws Search [Alt+S] United States (N. Virginia) rsosaccount-new/6801da4369d20120be221457 @ rsosandbox7 ⓘ ⓘ

DynamoDB > Tables

DynamoDB

- Dashboard
- Tables**
- Explore items
- PartiQL editor
- Backups
- Exports to S3
- Imports from S3
- Integrations [New](#)
- Reserved capacity
- Settings

DAX

- Clusters
- Subnet groups
- Parameter groups
- Events

Share your feedback on Amazon DynamoDB
Your feedback is an important part of helping us provide a better customer experience. Take this short survey to let us know how we're doing.

Creating the travelgo_users table. It will be available for use shortly.

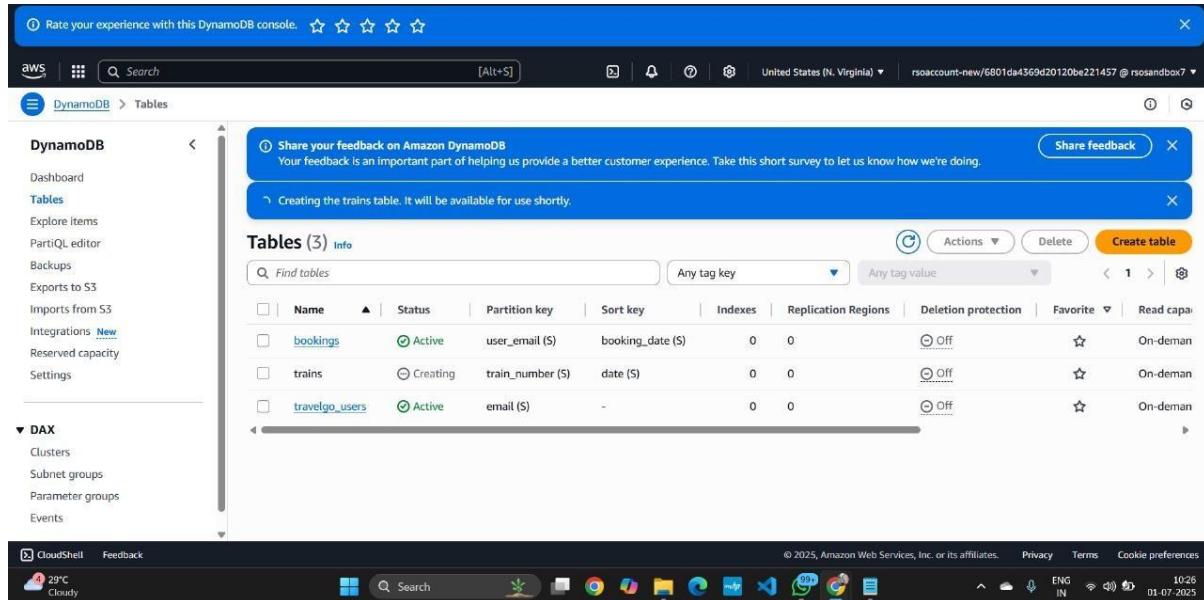
Tables (2) Info

	Name	Status	Partition key	Sort key	Indexes	Replication Regions	Deletion protection	Favorite	Read capacity
<input type="checkbox"/>	bookings	Active	user_email (\$)	booking_date (\$)	0	0	Off	☆	On-demand
<input type="checkbox"/>	travelgo_users	Creating	email (\$)	-	0	0	Off	☆	On-demand

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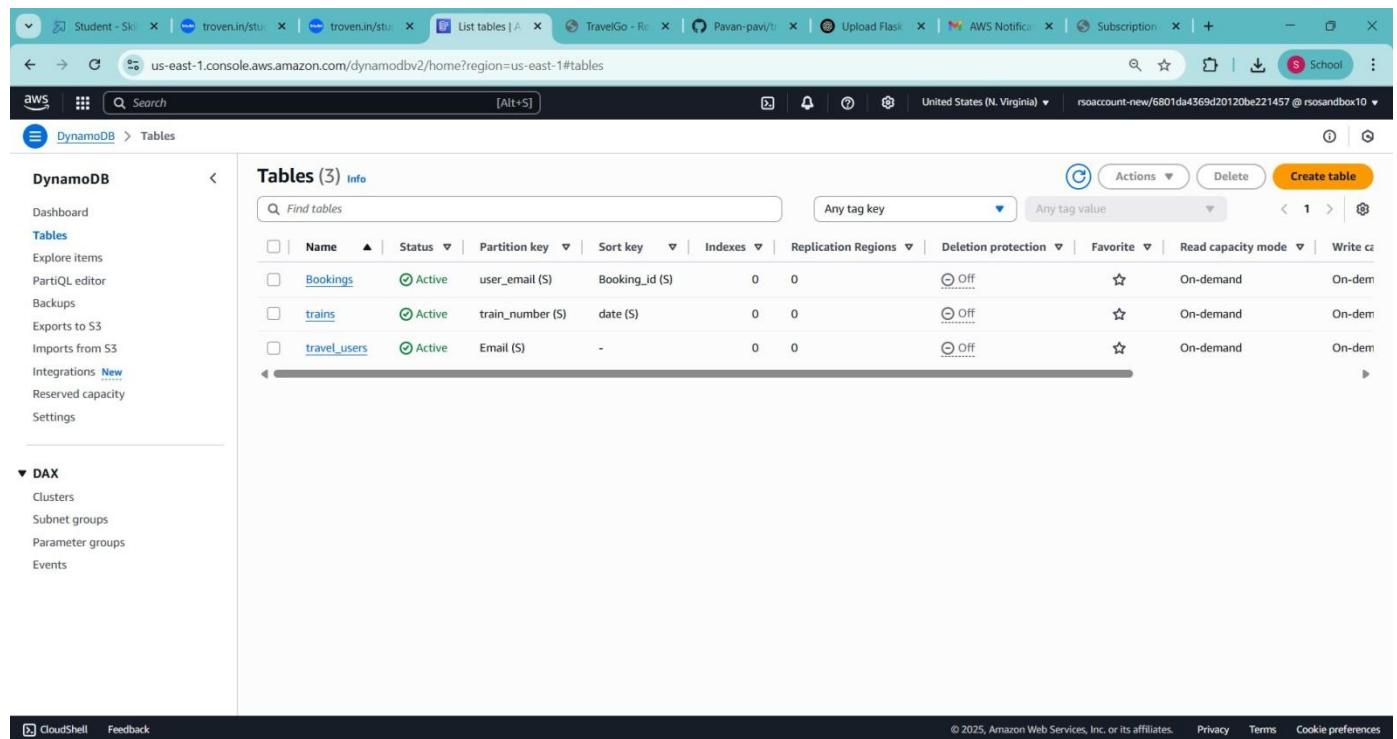
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- Follow the same steps to create Bookings for storing booking records with email as the partition key and booking_id as the sort key.



The screenshot shows the AWS DynamoDB console interface. On the left, there is a navigation sidebar with options like Dashboard, Tables, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Integrations, Reserved capacity, and Settings. Below this is a section for DAX with Clusters, Subnet groups, Parameter groups, and Events. The main area displays a list of tables with the following details:

Name	Status	Partition key	Sort key	Indexes	Replication Regions	Deletion protection	Favorite	Read capacity mode
bookings	Active	user_email (\$)	booking_date (\$)	0	0	Off	☆	On-demand
trains	Creating	train_number (\$)	date (\$)	0	0	Off	☆	On-demand
travelgo_users	Active	email (\$)	-	0	0	Off	☆	On-demand

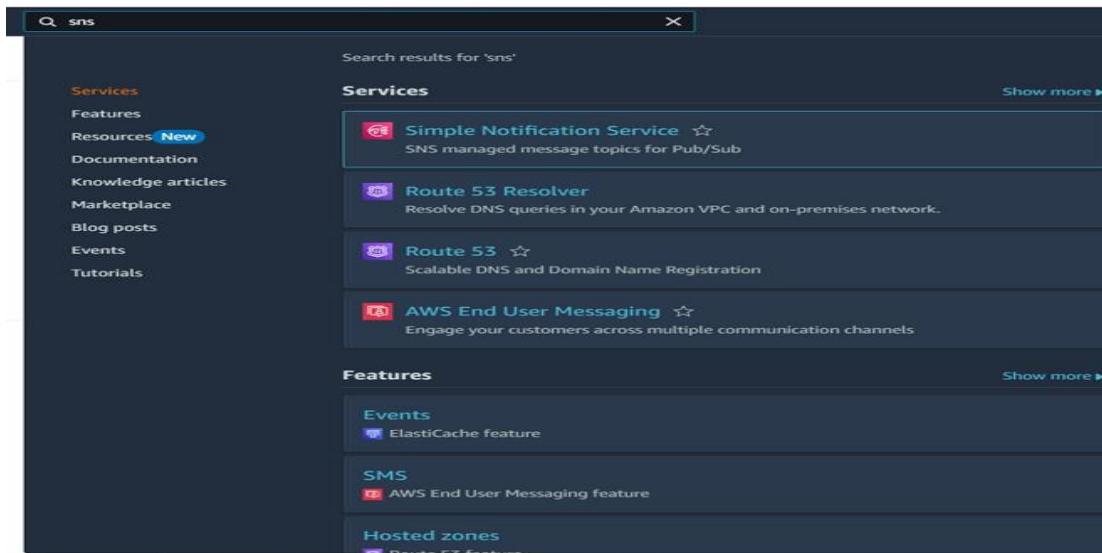


This screenshot shows the same AWS DynamoDB console interface as the previous one, but with different table names: Bookings, trains, and travel_users. The table details are as follows:

Name	Status	Partition key	Sort key	Indexes	Replication Regions	Deletion protection	Favorite	Read capacity mode
Bookings	Active	user_email (\$)	Booking_id (\$)	0	0	Off	☆	On-demand
trains	Active	train_number (\$)	date (\$)	0	0	Off	☆	On-demand
travel_users	Active	Email (\$)	-	0	0	Off	☆	On-demand

Milestone4.SNSNotificationSetup

- **Activiy4.1:**CreateSNStopicsforbookrequestnotifications.




The screenshot shows the Amazon Simple Notification Service (SNS) landing page. The left sidebar includes links for Dashboard, Topics, Subscriptions, Mobile (Push notifications, Text messaging (SMS)), and a main content area for Application Integration.

The central content area features the following text:

Amazon Simple Notification Service
 Pub/sub messaging for microservices and serverless applications.

Amazon SNS is a highly available, durable, secure, fully managed pub/sub messaging service that enables you to decouple microservices, distributed systems, and event-driven serverless applications. Amazon SNS provides topics for high-throughput, push-based, many-to-many messaging.

To the right, there is a 'Create topic' form with a 'Topic name' field containing 'MyTopic' and a 'Next step' button. Below the form, a link says 'Start with an overview'.

- Click on Create Topic and choose a name for the topic

Amazon SNS > Topics > Create topic

New Feature
Amazon SNS now supports High Throughput FIFO topics. [Learn more](#)

Error code: AccessDeniedException - Error message: User: arn:aws:sts::975050316116:assumed-role/rsosandbox-new/5801da4369d20120be221457 is not authorized to perform: kms:DescribeKey on resource: arn:aws:kms:us-east-1:975050316116:key/38561bed-7b34-4be2-b80b-3b887272f90f because no identity-based policy allows the kms:DescribeKey action

[Diagnose with Amazon Q](#)

Create topic

Details

Type: [Info](#)
Topic type cannot be modified after topic is created

FIFO (first-in, first-out)

- Strictly-preserved message ordering
- Exactly-once message delivery
- Subscription protocols: SQS

Standard

- Best-effort message ordering
- At-least once message delivery
- Subscription protocols: SQS, Lambda, Data Firehose, HTTP, SMS, email, mobile application endpoints

Name: Travelgo
Maximum 256 characters. Can include alphanumeric characters, hyphens (-) and underscores (_).

Display name - optional: [Info](#)
To use this topic with SMS subscriptions, enter a display name. Only the first 10 characters are displayed in an SMS message.

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► **Access policy - optional** [Info](#)
This policy defines who can access your topic. By default, only the topic owner can publish or subscribe to the topic.

► **Data protection policy - optional** [Info](#)
This policy defines which sensitive data to monitor and to prevent from being exchanged via your topic.

► **Delivery policy (HTTP/S) - optional** [Info](#)
The policy defines how Amazon SNS retries failed deliveries to HTTP/S endpoints. To modify the default settings, expand this section.

► **Delivery status logging - optional** [Info](#)
These settings configure the logging of message delivery status to CloudWatch Logs.

► **Tags - optional**
A tag is a metadata label that you can assign to an Amazon SNS topic. Each tag consists of a key and an optional value. You can use tags to search and filter your topics and track your costs. [Learn more](#)

► **Active tracing - optional** [Info](#)
Use AWS X-Ray active tracing for this topic to view its traces and service map in Amazon CloudWatch. Additional costs apply.

[Cancel](#) [Create topic](#)

- Configure the SNS topic and note down the Topic ARN



The screenshot shows the AWS SNS console with a topic named 'Travelgo'. The 'Subscriptions' tab is active, displaying a table with one row: 'No subscriptions found'. A button labeled 'Create subscription' is visible at the bottom of the table.

- o Subscribe users and library staff to SNS email notifications.

Create subscription

Details

Topic ARN
arn:aws:sns:ap-south-1:557690616836:BookRequestNotifications

Protocol
The type of endpoint to subscribe
Email

Endpoint
An email address that can receive notifications from Amazon SNS.
instantlibrary2@gmail.com

After your subscription is created, you must confirm it. [Info](#)

Subscription filter policy - optional [Info](#)
This policy filters the messages that a subscriber receives.

Redrive policy (dead-letter queue) - optional [Info](#)
Send undeliverable messages to a dead-letter queue.

[Cancel](#) [Create subscription](#)



The screenshot shows the AWS SNS console for a topic named 'BookRequestNotifications'. A banner at the top indicates that FIFO message archiving and replay support has been added. The main section displays the topic's details, including its ARN and owner information. Below this, tabs for 'Subscriptions', 'Access policy', 'Data protection policy', 'Delivery policy (HTTP/S)', 'Delivery status logging', 'Encryption', 'Tags', and 'Integrations' are visible. The 'Subscriptions' tab is selected, showing one pending confirmation subscription for an endpoint email address.

ID	Endpoint	Status	Protocol
Pending confirmation	isturntlibrary2@gmail.com	Pending confirmation	EMAIL

- After Confirmation of Subscription going to Mail for comfirmMail.

The screenshot shows a Gmail inbox with the search term "in:spam" applied. There are two messages from "AWS Notifications" in the spam folder:

- AWS Notifications** (Mon 30 Jun, 13:27 (6 days ago))
You have chosen to subscribe to the topic: arn:aws:sns:us-east-1:888577042471:Bookings To confirm this subscription, click or visit the link below (If this was an error no action is necessary).
[Confirm subscription](#)
- AWS Notifications <no-reply@sns.amazonaws.com>** to me (Mon 30 Jun, 18:04 (6 days ago))
Why is this message in spam? This message is similar to messages that were identified as spam in the past.
[Report as not spam](#)

The left sidebar shows the following labels:
Compose, **Inbox**, Starred, Snoozed, Sent, Drafts, Less, Important, Scheduled, All Mail, **Spam**, Bin, Categories, Manage labels, Create new label.

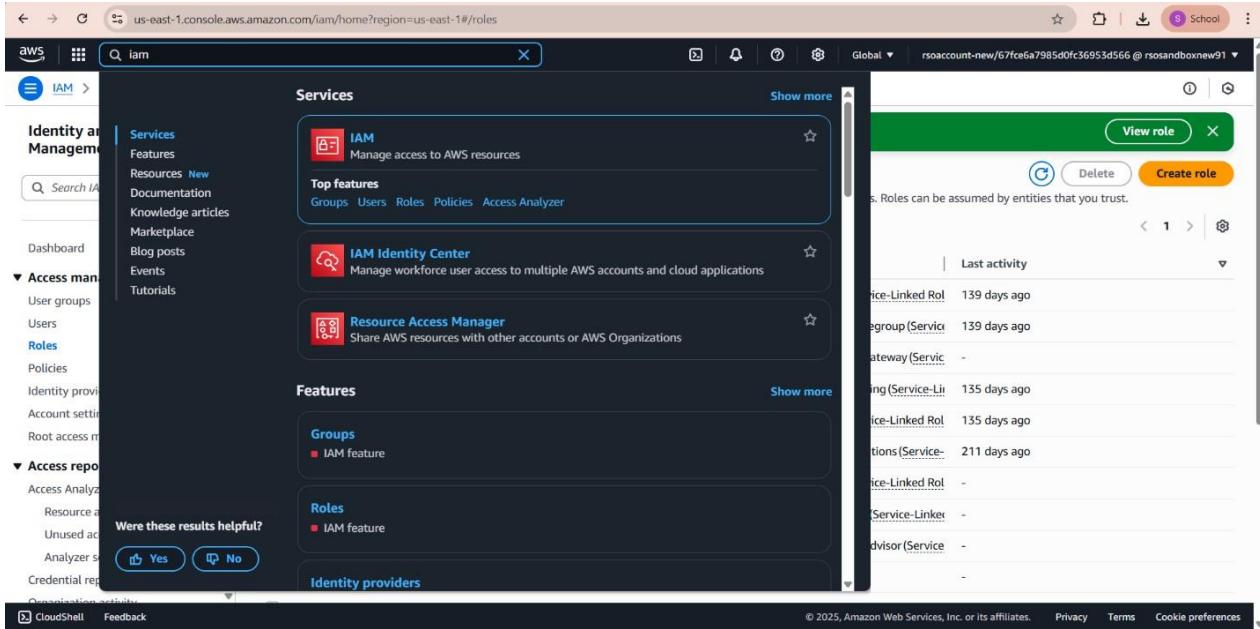
sts.us-east-1.amazonaws.com/confirmation.html?TopicArn=arn:aws:sns:us-east-1:19750503161116:Travelgo&Token=Z

The screenshot shows an email from AWS Simple Notification Service. The subject line is "Subscription confirmed!". The body of the email contains the following text:
You have successfully subscribed.
Your subscription's id is:
arn:aws:sns:us-east-1:975050316116:Travelgo:28c9523e-6995-4d0a-aa37-
8a9104501394
If it was not your intention to subscribe, [click here to unsubscribe](#).

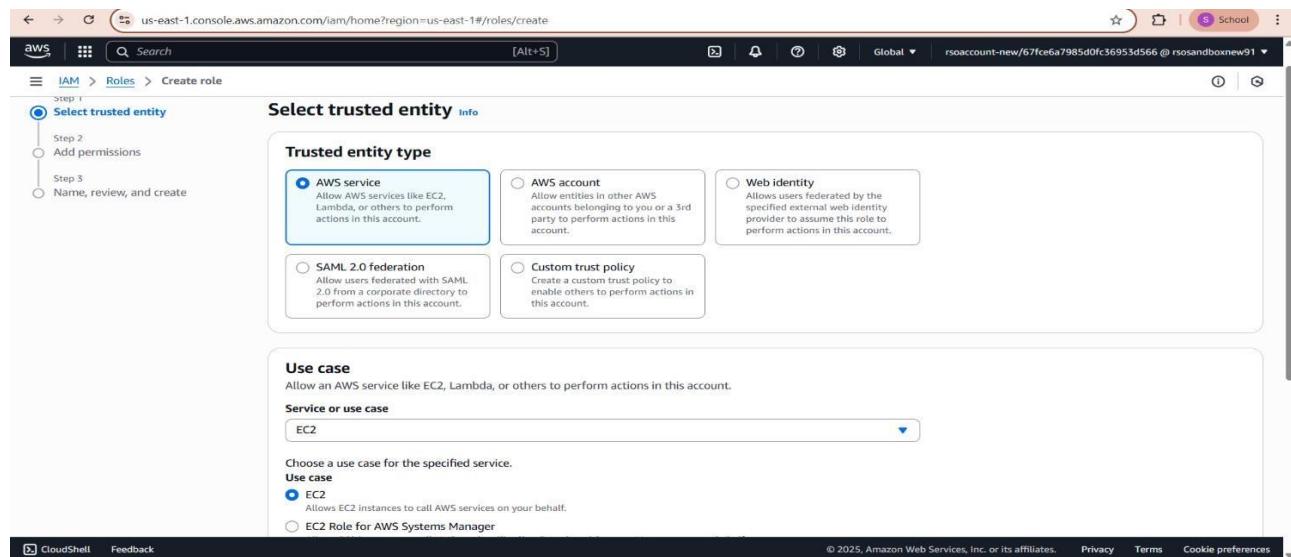


Milestone5: IAMRoleSetup.

- **Activity5.1:** In the AWS Console, go to IAM and create a new IAM Role for EC2 to interact with DynamoDB .



The screenshot shows the AWS IAM console with the 'Roles' section selected. On the left, the navigation menu includes 'Identity and Management', 'Access management', 'Access reports', and 'Were these results helpful?'. The main area displays 'Services' and 'Features' sections. Under 'Services', 'IAM' is highlighted. Under 'Features', 'Groups' and 'Roles' are listed. A role named 'Service-Linker' is shown in the list, along with other roles like 'AWS-Service-Linked-Role-AmazonCloudWatchLogs' and 'AWS-Service-Linked-Role-AmazonCloudWatchMetrics'. The status bar at the bottom indicates the role was created 135 days ago.



The screenshot shows the 'Create role' wizard, Step 1: Select trusted entity. The 'Step 1' section has a radio button next to 'Select trusted entity'. Below it are three steps: 'Step 2 Add permissions', 'Step 3 Name, review, and create'. The 'Select trusted entity' section has a title 'Select trusted entity' with an 'Info' link. It contains a 'Trusted entity type' section with five options: 'AWS service' (selected), 'AWS account', 'Web identity', 'SAML 2.0 federation', and 'Custom trust policy'. The 'Use case' section allows selecting a service or use case, with 'EC2' selected. The status bar at the bottom indicates the role was created 211 days ago.

- **Activity5.2: Attach Policies**
- **AmazonDynamoDBFullAccess:** Allows EC2 to perform read/write operations on DynamoDB.
- **AmazonSNSFullAccess:** Grants EC2 the ability to send notifications via SNS.

IAM > Roles > Create role

Step 1 Select trusted entity

Step 2 Add permissions

Step 3 Name, review, and create

Add permissions Info

Permissions policies (1/955) Info

Choose one or more policies to attach to your new role.

Filter by Type All types 2 matches

Policy name	Type
<input checked="" type="checkbox"/>  AmazonDynamoDBFullAccess	AWS managed
<input type="checkbox"/>  AmazonDynamoDBReadOnlyAccess	AWS managed

Set permissions boundary - optional

Cancel Previous Next

IAM > Roles > Create role

Step 1 Select trusted entity

Step 2 Add permissions

Step 3 Name, review, and create

Add permissions Info

Permissions policies (2/955) Info

Choose one or more policies to attach to your new role.

Filter by Type All types 5 matches

Policy name	Type
<input checked="" type="checkbox"/>  AmazonSNSFullAccess	AWS managed
<input type="checkbox"/>  AmazonSNSReadOnlyAccess	AWS managed
<input type="checkbox"/>  AmazonSNSState	AWS managed
<input type="checkbox"/>  AWSLambdaBasicExecutionRoleSNS	AWS managed
<input type="checkbox"/>  AWSLambdaDeviceDefenderPublishFindingsToSNSMigrationAction	AWS managed

Set permissions boundary - optional

Cancel Previous Next

us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/details/EC2_DynamoDB_Role?section=permissions

IAM > Roles > EC2_DynamoDB_Role

EC2_DynamoDB_Role Info

Allows EC2 instances to call AWS services on your behalf.

Summary

Creation date: July 03, 2025, 12:37 (UTC+05:30)

Last activity: 43 minutes ago

ARN: arn:aws:iam::463470967537:role/EC2_DynamoDB_Role

Maximum session duration: 1 hour

Permissions **Trust relationships** **Tags** **Last Accessed** **Revoke sessions**

Permissions policies (3) Info

You can attach up to 10 managed policies.

Filter by Type All types Attached entities

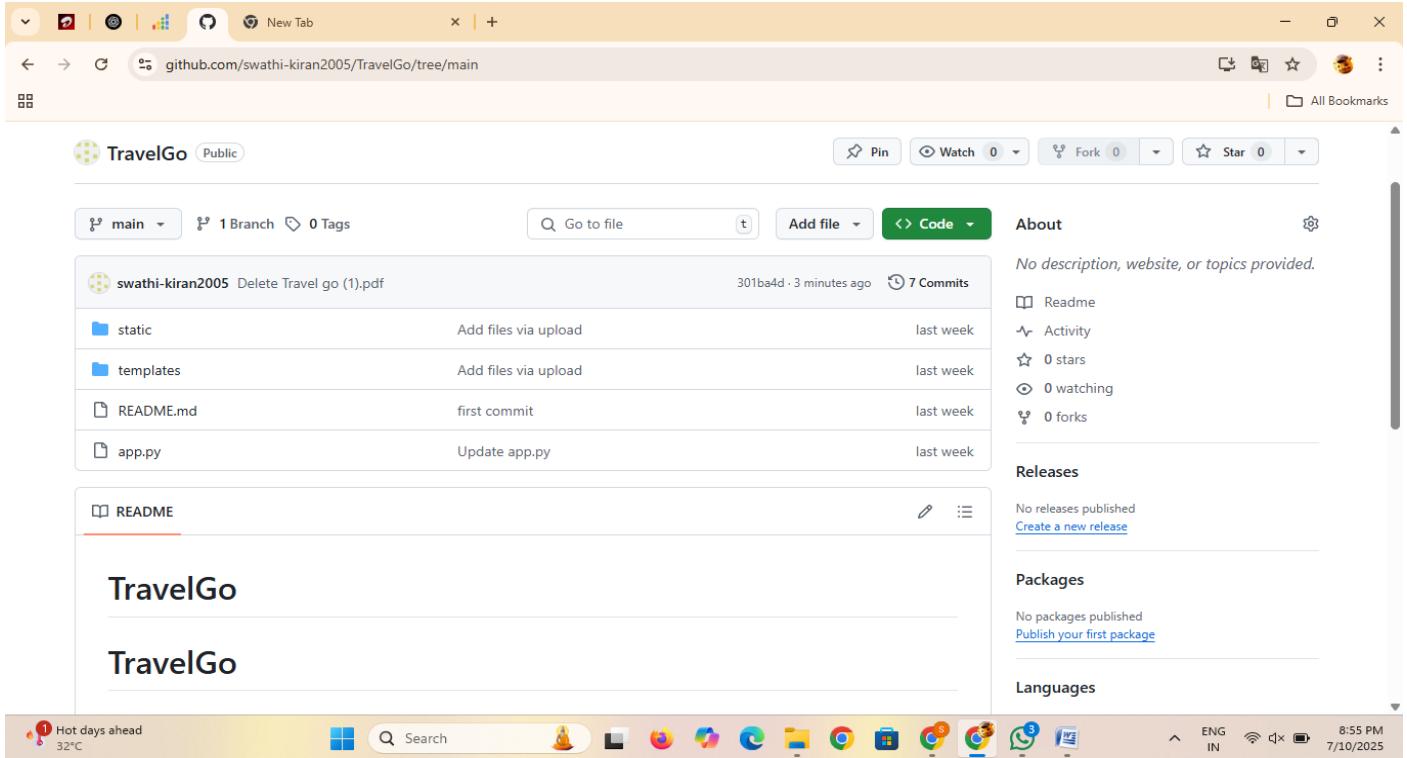
Policy name	Type	Attached entities
<input type="checkbox"/>  AmazonDynamoDBFullAccess	AWS managed	1
<input type="checkbox"/>  AmazonEC2FullAccess	AWS managed	1

Simulate Remove Add permissions

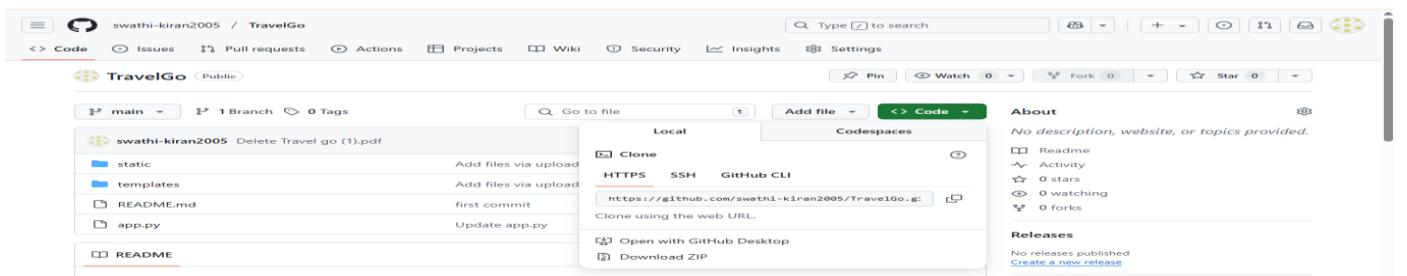
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- **Milestone6.EC2InstanceSetup**

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



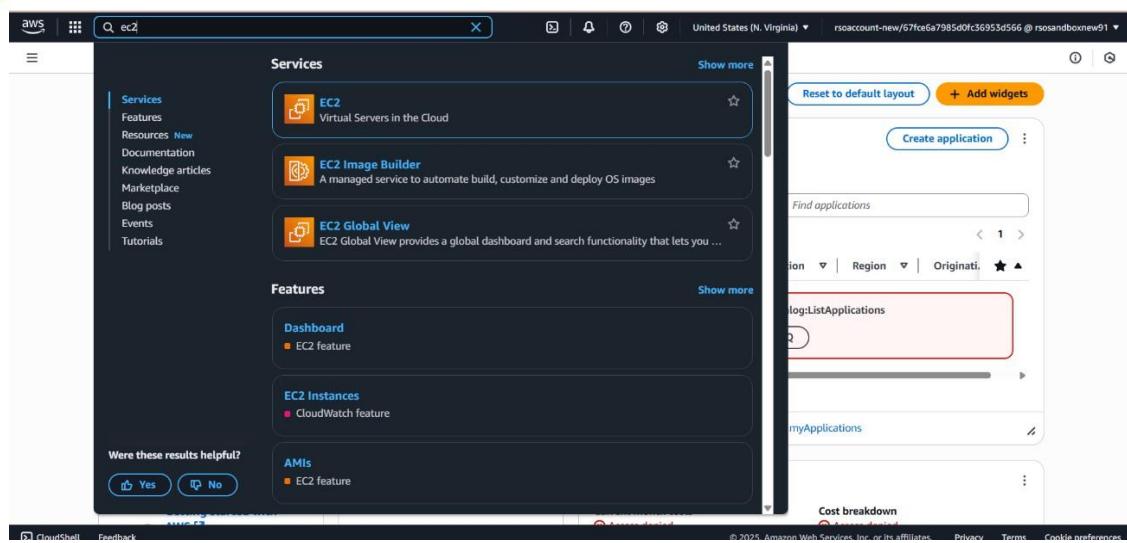
The screenshot shows a web browser window with the GitHub URL github.com/swathi-kiran2005/TravelGo/tree/main in the address bar. The page displays the contents of the 'main' branch of the 'TravelGo' repository. The repository has 1 branch and 0 tags. The commit history shows 7 commits from 'swathi-kiran2005' made 3 minutes ago, including file uploads for static, templates, README.md, and app.py, and an update to app.py. The README file contains two sections: 'TravelGo' and 'TravelGo'. On the right side of the page, there are sections for 'About' (no description), 'Readme', 'Activity' (0 stars, 0 watching, 0 forks), 'Releases' (no releases published), 'Packages' (no packages published), and 'Languages' (ENG IN).



This screenshot shows the same GitHub repository 'TravelGo' but with a different view. The 'Code' tab is selected, showing the repository structure and commit history. A 'Clone' section is visible on the right, providing options for Local (Clone, HTTPS, SSH, GitHub CLI) and external links (Open with GitHub Desktop, Download ZIP). The rest of the page content is identical to the previous screenshot, including the README file and various GitHub metrics.

Activity6.1: Launch an EC2 instance to host the Flask application.

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



The screenshot shows the AWS Smartbridge search results for the query "ec2". The results are categorized into "Services" and "Features".

Services

- EC2** Virtual Servers in the Cloud
- EC2 Image Builder** A managed service to automate build, customize and deploy OS images
- EC2 Global View** EC2 Global View provides a global dashboard and search functionality that lets you ...

Features

- Dashboard** ■ EC2 feature
- EC2 Instances** ■ CloudWatch feature
- AMIs** ■ EC2 feature

Were these results helpful?

CloudShell Feedback

aws Q ec2 United States (N. Virginia) rsaccount-new/67fce6a7985d0fc369f3d566 @ rsosandboxnew@1 ▾

Reset to default layout + Add widgets Create application Find applications < 1 > Region | Originati. myApplications Cost breakdown

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EC2 > Instances > Launch an instance

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name: TravelGoproject

Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux Debian

Amazon Machine Image (AMI)

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aws Search [Alt+S] United States (N. Virginia) rsoaccount-new/6801da4369d20120be221457 @ rsoandbox7

EC2 > Instances > Launch an instance

Instance type
t2.micro Family: t2 1 vCPU 1 GiB Memory Current generation: true

Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure your key pair name - required.

Create key pair

Key pair name
Key pairs allow you to connect to your instance securely.

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

Summary

Number of instances Info

Software Image (AMI) Amazon Linux 2023 AMI 2023.7.2... read more ami-05ffe3c48a9991133

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 of opening an AWS account, you get 750 hours per month of t2.micro instance usage (or t3.micro where applicable).

Subnet Info
No preference (Default subnet in any availability zone)

Auto-assign public IP Info
Enable
Additional charges apply when outside of free tier allowance

Firewall (security groups) Info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

- Allow SSH traffic from Anywhere 0.0.0.0/0
- Allow HTTPS traffic from the internet To set up an endpoint, for example when creating a web server
- Allow HTTP traffic from the internet To set up an endpoint, for example when creating a web server

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Summary

Number of instances Info

Software Image (AMI) Amazon Linux 2023 AMI 2023.7.2... read more ami-05ffe3c48a9991133

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 of opening an AWS account, you get 750 hours per month of t2.micro instance usage (or t3.micro where applicable).



EC2 > Security Groups > sg-049f2c306e6d1d9b2 - launch-wizard-1 > Edit inbound rules

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type <small>Info</small>	Protocol <small>Info</small>	Port range <small>Info</small>	Source <small>Info</small>	Description - optional <small>Info</small>	
sgr-0fda52ea58d9e5d04	HTTP	TCP	80	Custom	<input type="text"/> 0.0.0.0/0	<button>Delete</button>
sgr-0a2f064bc1f04d247	HTTPS	TCP	443	Custom	<input type="text"/> 0.0.0.0/0	<button>Delete</button>
sgr-0277306b485fb35a3	SSH	TCP	22	Custom	<input type="text"/> 0.0.0.0/0	<button>Delete</button>
-	Custom TCP	TCP	5000	Anyw...	<input type="text"/> 0.0.0.0/0	<button>Delete</button>

[Add rule](#)

⚠ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.



EC2 > Instances > Launch an instance

Success
Successfully initiated launch of instance (i-026261ba87b4f063c)

[Launch log](#)

Next Steps

Q: What would you like to do next with this instance, for example "create alarm" or "create backup"

1 2 3 4 5 6 >

Create billing and free tier usage alerts
To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.
[Create billing alerts](#)

Connect to your instance
Once your instance is running, log into it from your local computer.
[Connect to instance](#) [Learn more](#)

Connect an RDS database
Configure the connection between an EC2 instance and a database to allow traffic flow between them.
[Connect an RDS database](#) [Create a new RDS database](#) [Learn more](#)

Create EBS snapshot policy
Create a policy that automates the creation, retention, and deletion of EBS snapshots
[Create EBS snapshot policy](#)

EC2 > Instances

Instances (1/1) Info

Last updated less than a minute ago [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public
Travelgo	i-0b00dae707545d7fe	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b	ec2-98-81-123-207.co...	98.81.1

i-0b00dae707545d7fe (Travelgo)

[Details](#) [Status and alarms](#) [Monitoring](#) [Security](#) [Networking](#) [Storage](#) [Tags](#)

Instance summary Info

Instance ID: i-0b00dae707545d7fe
IPv6 address: -

Public IPv4 address: 98.81.123.207 | [open address](#)

Instance state: Running

Private IPv4 addresses: 172.31.20.49

Public DNS: ec2-98-81-123-207.compute-1.amazonaws.com | [open address](#)



aws [Alt+S] Search

EC2 > Instances > i-0bc9fb84ccde8e83a > Modify IAM role

Modify IAM role Info

Attach an IAM role to your instance.

Instance ID: [i-0bc9fb84ccde8e83a](#) (HomeMadePickles)

IAM role: Select an IAM role to attach to your instance or create a new role if you haven't created any. The role you select replaces any roles that are currently attached to your instance.

EC2_DynamoDB_Role [Create new IAM role](#)

[Cancel](#) [Update IAM role](#)

EC2

Dashboard

EC2 Global View [View](#)

Events

Instances

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Instances (1/1) Info

Last updated less than a minute ago

[Find Instance by attribute or tag \(case-sensitive\)](#)

[Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

Instance state = running

Clear filters

✓ Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public
<input checked="" type="checkbox"/> Travelgo	i-0b00dae707545d7fe	Running	t2.micro	2/2 checks passed	View alarms +	us-east-1b	ec2-98-81-123-207.co...	98.81.1

i-0b00dae707545d7fe (Travelgo)

[Details](#) [Status and alarms](#) [Monitoring](#) [Security](#) [Networking](#) [Storage](#) [Tags](#)

Instance summary Info

Instance ID: [i-0b00dae707545d7fe](#)

Public IPv4 address: [98.81.123.207](#) | [open address](#)

Private IPv4 addresses: [172.31.20.49](#)

[EC2](#) > [Instances](#) > i-026261ba87b4f063c > Connect to instance

Connect Info

Connect to an instance using the browser-based client.

[EC2 Instance Connect](#) [Session Manager](#) [SSH client](#) [EC2 serial console](#)

⚠ Unable to verify public subnet

You are not authorized to perform this operation. User: arn:aws:sts::975050316116:assumed-role/rsoaccount-new/6801da4369d20120be221457 is not authorized to perform: ec2:DescribeRouteTables because no identity-based policy allows the ec2:DescribeRouteTables action.

Unable to verify if associated subnet [subnet-05de57a18e40676bc](#) is a public subnet. To use EC2 Instance Connect, your instance must be in a public subnet. To make the subnet a public subnet, add a route in the subnet route table to an internet gateway.

Instance ID: [i-026261ba87b4f063c](#) (TravelGoproject)

[Connect using a Public IP](#)
Connect using a public IPv4 or IPv6 address.

[Connect using a Private IP](#)
Connect using a private IP address and a VPC endpoint.

[Public IPv4 address](#)
[18.206.57.129](#)

[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.

Connect Info

Connect to an instance using the browser-based client.

[EC2 Instance Connect](#) | [Session Manager](#) | **SSH client** | [EC2 serial console](#)
Instance ID
 i-026261ba87b4f063c (TravelGoproject)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is Travelgo.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.
 chmod 400 "Travelgo.pem"
4. Connect to your instance using its Public DNS:
 ec2-18-206-57-129.compute-1.amazonaws.com

Example:
 ssh -i "Travelgo.pem" ec2-user@ec2-18-206-57-129.compute-1.amazonaws.com

 ⓘ Note: In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Milestone7:DeploymentonEC2

Activity7.1:InstallSoftwareontheEC2Instance

- **InstallPython3,Flask, and Git:**
- **OnAmazonLinux2:**
- **sudo yum update -y**
- **sudo yum install python3 git**
- **sudo pip3 install flask boto3**
- **VerifyInstallations:**
- **flask --version**
- **git --version**

Activity7.2:CloneYourFlaskProjectfromGitHub.

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

Run: 'git clone https://github.com/swathikiran2005/TravelGo.git'. This

will download the Project to Ec2 instance .

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

```
cd InstantLibrary
```

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

Run the Flask Application

```
sudoflaskrun--host=0.0.0.0--port=80
```

```

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\bandi> ssh -i "C:\Users\bandi\Downloads\project.pem" ec2-user@ec2-98-81-123-207.compute-1.amazonaws.com
The authenticity of host 'ec2-98-81-123-207.compute-1.amazonaws.com (64:ff9b::6251:7bcf)' can't be established.
ED25519 key fingerprint is SHA256:wZleElGbrerclNw90c1Ccacwqiu0cjL9+2z38Q4xwus.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-98-81-123-207.compute-1.amazonaws.com' (ED25519) to the list of known hosts.

#  

# Amazon Linux 2023  

# https://aws.amazon.com/linux/amazon-linux-2023  

#>  

# /  

# m/  

[ec2-user@ip-172-31-20-49 ~]$ sudo yum install git -y
Amazon Linux 2023 Kernel Livepatch repository                                172 kB/s |  17 kB   00:00
Dependencies resolved.

=====
Package          Architecture Version       Repository
=====
Installing:
git              x86_64      2.47.1-1.amzn2023.0.3    amazonlinux
Installing dependencies:
git-core          x86_64      2.47.1-1.amzn2023.0.3    amazonlinux
git-core-doc      noarch      2.47.1-1.amzn2023.0.3    amazonlinux
perl-error        noarch      1:0.17029-5.amzn2023.0.2  amazonlinux
perl-File-Find    noarch      1.37-477.amzn2023.0.7   amazonlinux
perl-Git          noarch      2.47.1-1.amzn2023.0.3    amazonlinux
perl-TermReadKey  x86_64      2.38-9.amzn2023.0.2     amazonlinux
perl-lib          x86_64      0.65-477.amzn2023.0.7   amazonlinux

```

```

Install 8 Packages

Total download size: 7.5 M
Installed size: 37 M
Downloading Packages:
(1/8): git-2.47.1-1.amzn2023.0.3.x86_64.rpm           1.5 MB/s | 52 kB   00:00
(2/8): perl-Error-0.17029-5.amzn2023.0.2.noarch.rpm    1.9 MB/s | 41 kB   00:00
(3/8): perl-File-Find-1.37-477.amzn2023.0.7.noarch.rpm 949 kB/s | 25 kB   00:00
(4/8): perl-Git-2.47.1-1.amzn2023.0.3.noarch.rpm       1.6 MB/s | 40 kB   00:00
(5/8): perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64.rpm 1.3 MB/s | 36 kB   00:00
(6/8): git-core-doc-2.47.1-1.amzn2023.0.3.noarch.rpm   16 MB/s | 2.8 MB  00:00
(7/8): perl-lib-0.65-477.amzn2023.0.7.x86_64.rpm      414 kB/s | 15 kB   00:00
(8/8): git-core-2.47.1-1.amzn2023.0.3.x86_64.rpm       23 MB/s | 4.5 MB  00:00

Total                                         33 MB/s | 7.5 MB  00:00

Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Preparing :
Installing : git-core-2.47.1-1.amzn2023.0.3.x86_64
Installing : git-core-doc-2.47.1-1.amzn2023.0.3.noarch
Installing : perl-lib-0.65-477.amzn2023.0.7.x86_64
Installing : perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64
Installing : perl-File-Find-1.37-477.amzn2023.0.7.noarch
Installing : perl-Error-1:0.17029-5.amzn2023.0.2.noarch
Installing : perl-Git-2.47.1-1.amzn2023.0.3.noarch
Installing : git-0.7.1-1.amzn2023.0.3.x86_64

1/1
1/1
2/2
3/3
4/4
5/5
6/6
7/7
8/8

```

```
Completed!
Collecting user installation because normal site-packages is not writeable
  Downloading flask-3.1.1-py3-none-any.whl (103 kB) 163 kB 18.4 MB/s
Collecting click==8.1.0
  Downloading click_8.1.0-py3-none-any.whl (98 kB) 98 kB 19.6 MB/s
Collecting blinker==1.9.0
  Downloading blinker-1.9.0-py3-none-any.whl (0.5 kB)
Collecting importlib-metadata==3.7.0-py3-none-any.whl (27 kB)
Collecting werkzeug==3.1.3
  Downloading werkzeug-3.1.3-py3-none-any.whl (224 kB) 224 kB 72.6 MB/s
Collecting markupsafe==3.0.1
  Downloading markupsafe-3.0.1-py3-cp39-cp39-manylinux_2_17_x86_64_manylinux2014_x86_64.whl (20 kB)
Collecting itsdangerous==2.2.0
  Downloading itsdangerous-2.2.0-py3-none-any.whl (10 kB)
Collecting Jinja2==3.1.0-py3-none-any.whl (134 kB) 134 kB 79.0 MB/s
Collecting zipp==3.20.0
  Downloading zipp-3.20.0-py3-none-any.whl (10 kB)
Installing collected packages: zipp, markupsafe, werkzeug, jinja2, itsdangerous, importlib-metadata, click, blinker, flask
  Found existing installation: Werkzeug 2.0.0
  Uninstalling Werkzeug-2.0.0 (from site-packages)...
Collecting boto3
  Downloading boto3-2.38.0-py3-none-any.whl (139 kB) 139 kB 13.9 MB/s
Collecting botocore
  Downloading botocore-1.39.0-py3-none-any.whl (13.8 kB) 13.8 kB 36.5 MB/s
Collecting s3transfer<0.14.0,>=0.12.0
  Downloading s3transfer-0.13.0-py3-none-any.whl (18 kB)
Requirement already satisfied: jmespath<2.0.0,!=0.7.1,in /usr/lib/python3.9/site-packages (from boto3) (0.19.0)
Requirement already satisfied: s3transfer<0.14.0,!=0.13.0,in /usr/lib/python3.9/site-packages (from botocore<1.40.0,>=1.39.0->-boto3) (2.8.1)
Requirement already satisfied: urllib3<1.27,>=1.25.1,in /usr/lib/python3.9/site-packages (from botocore<1.40.0,>=1.39.0->-boto3) (1.25.10)
```

```

Collecting MarkupSafe==3.0.2-cp39-cp39-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (20 kB)
Collecting itsdangerous==2.2.0
  Downloading itsdangerous-2.2.0-py3-none-any.whl (16 kB)
Collecting jinja2>=3.1.2
  Downloading jinja2-3.1.6-py3-none-any.whl (134 kB)
    |██████████| 134 kB 79.0 MB/s
Collecting zipp>=3.20
  Downloading zipp-3.23.0-py3-none-any.whl (10 kB)
Installing collected packages: zipp, markupsafe, werkzeug, jinja2, itsdangerous, importlib-metadata, click, blinker, flask
Successfully installed blinker-1.9.0 click-8.1.8 flask-3.1.1 importlib-metadata-8.7.0 itsdangerous-2.2.0 jinja2-3.1.6 markupsafe-3.0.2 werkzeug-3.1.3 zipp-3.23.0
Defaulting to user installation because normal site-packages is not writeable
Collecting boto3
  Downloading boto3-1.39.0-py3-none-any.whl (139 kB)
    |██████████| 139 kB 13.9 MB/s
Collecting botocore<1.40.0,>=1.39.0
  Downloading botocore-1.39.0-py3-none-any.whl (13.8 MB)
    |██████████| 13.8 MB 36.5 MB/s
Collecting s3transfer<0.14.0,>=0.13.0
  Downloading s3transfer-0.13.0-py3-none-any.whl (85 kB)
    |██████████| 85 kB 8.4 MB/s
Requirement already satisfied: jmespath<2.0.0,>=0.7.1 in /usr/lib/python3.9/site-packages (from boto3) (0.10.0)
Requirement already satisfied: python-dateutil<3.0.0,>=2.1 in /usr/lib/python3.9/site-packages (from botocore<1.40.0,>=1.39.0->boto3) (2.8.1)
Requirement already satisfied: urllib3<1.27,>=1.25.4 in /usr/lib/python3.9/site-packages (from botocore<1.40.0,>=1.39.0->boto3) (1.25.10)
Requirement already satisfied: six<1.5 in /usr/lib/python3.9/site-packages (from python-dateutil<3.0.0,>=2.1->botocore<1.40.0,>=1.39.0->boto3) (1.15.0)
Installing collected packages: botocore, s3transfer, boto3
Successfully installed boto3-1.39.0 botocore-1.39.0 s3transfer-0.13.0
[ec2-user@ip-172-31-20-49 travelgo1]$ python3 app.py
 * Serving Flask app 'app'
 * Debug mode: on
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://127.0.0.1:5000
 * Running on http://172.31.20.49:5000
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
```

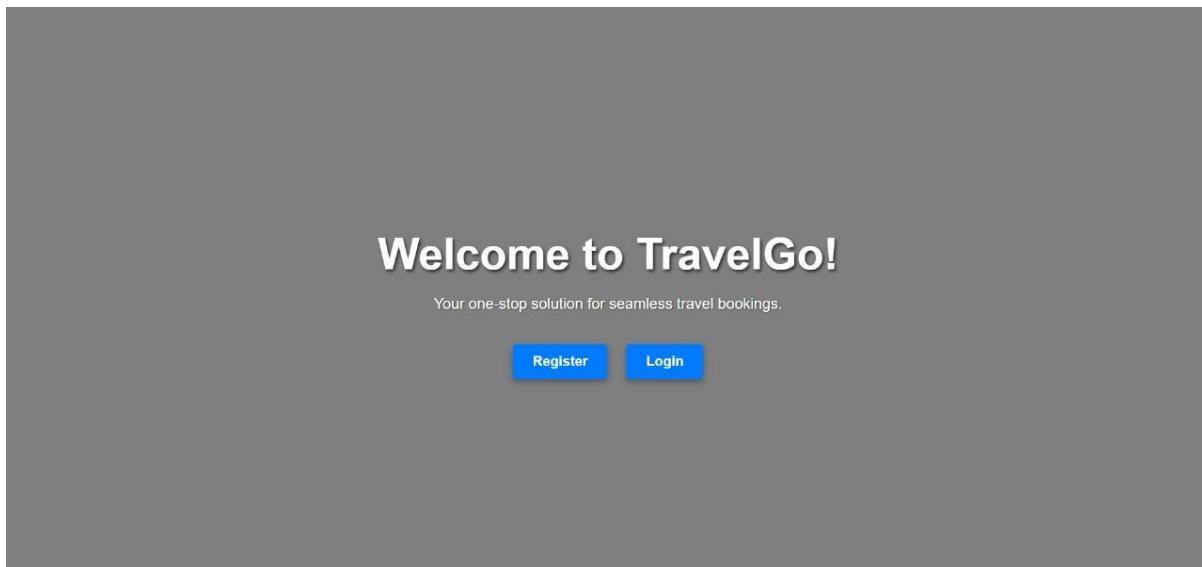
Access the website through:

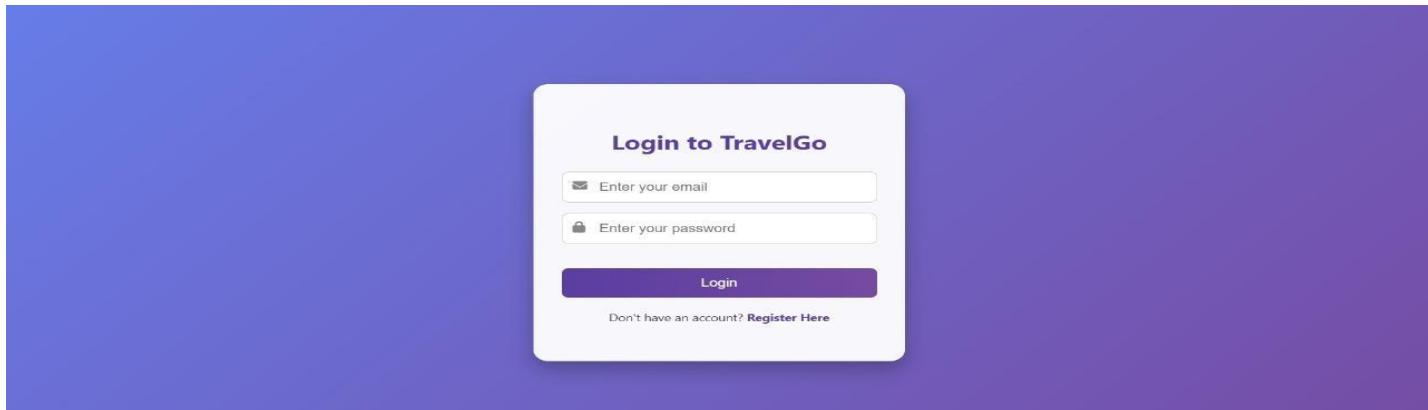
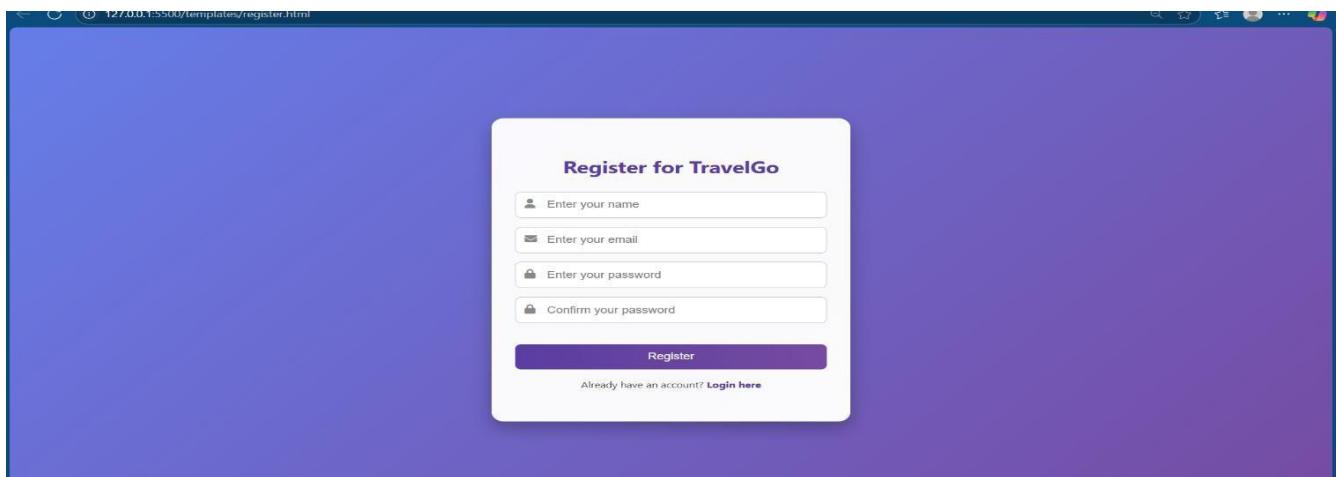
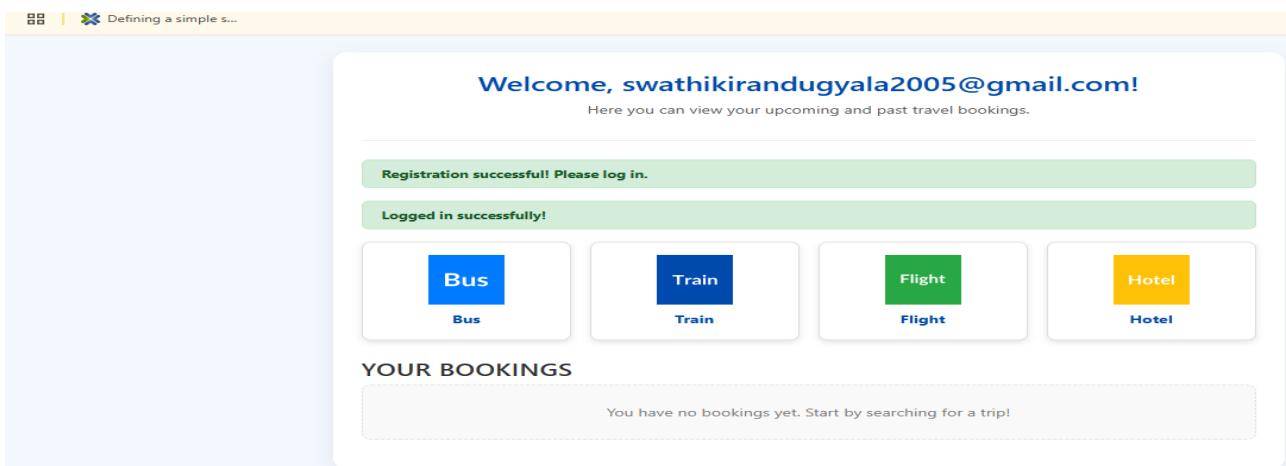
Public IPs: <http://98.81.123.207:5000/>

Milestone 8. Testing and Deployment

Activity 8.1: Conduct functional testing to verify user signup, login, buy/sell stocks and notifications.

Homepage:



LOGINPAGE:**SIGNUPPAGE:****Dashboard:**

The dashboard for TravelGo shows a welcome message "Welcome, swathikirandugyala2005@gmail.com!" and a note that the user can view upcoming and past travel bookings. There are two green success messages: "Registration successful! Please log in." and "Logged in successfully!". Below these are four buttons for booking: "Bus" (blue), "Train" (dark blue), "Flight" (green), and "Hotel" (yellow). Under the heading "YOUR BOOKINGS", there is a message stating "You have no bookings yet. Start by searching for a trip!". The top of the browser window shows the URL "127.0.0.1:5500/templates/register.html".

Bus booking confirmed successfully!



Bus



Train



Flight



Hotel

YOUR BOOKINGS

Bus Booking

Bus: Kaveri Travels

Route: Hyderabad → Guntur

Date: 2025-07-01

Time: 09:30 AM

Seats: S19

Passengers: 1

Booked On: 2025-07-01

₹550.00

[Cancel Booking](#)

29°C

Cloudy

Search

12:40

01-07-2025

BUSPAGE:

TravelGo

Home Dashboard

Search & Book Buses

Search

AC Non-AC Sleeper Semi-Sleeper Seater

Sort by Price:

HOTELPAGE:

TravelGo

Home Dashboard Hotels

Book Your Perfect Stay

Search

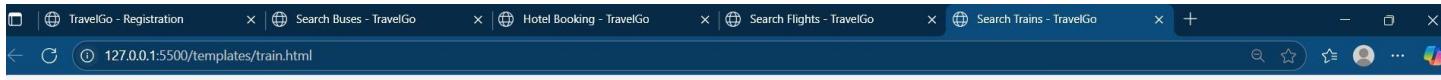
5-Star 4-Star 3-Star WiFi Pool Parking

Sort by:

FLIGHTPAGE:

🔍 Search & Book Flights

From	To	dd-mm-yyyy	1	<input type="button" value="Search"/>
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TRAINPAGE:

The screenshot shows a browser window with five tabs open, all titled "TravelGo -". The tabs are: "Registration", "Search Buses - TravelGo", "Hotel Booking - TravelGo", "Search Flights - TravelGo", and "Search Trains - TravelGo". The main content area of the browser displays a search form for trains. The form has fields for "From", "To", "Date" (set to "27-06-2025"), and "Passenger Count" (set to "1"). Below the form is a large, empty white space.

SEATSELECTPAGE:

Select Your Seats

You can select 1 seat(s)

S1	S2	S3	S4
S5	S6	S7	S8
S9	S10	S11	S12
S13	S14	S15	S16
S17	S18	S19	S20
S21	S22	S23	S24
S25	S26	S27	S28
S29	S30	S31	S32
S33	S34	S35	S36
S37	S38	S39	S40

[Confirm Booking](#)

FLIGHT BOOKING PAGE :

Confirm Your Flight Booking

Airline: Vistara (UK-876)
Route: Bengaluru → Delhi
Date: 2025-07-02
Departure: 12:00
Arrival: 14:45
Passengers: 1
Price/person: ₹4500
Total Price: ₹4500

[Confirm Booking](#)

HOTELBOOKINGPAGE:

Confirm Your Hotel Booking

Hotel: Taj Falaknuma Palace

Location: Hyderabad

Check-in: 2025-07-01

Check-out: 2025-07-02

Rooms: 1

Guests: 1

Price/night: ₹25000

Total nights: 1

Total Cost: ₹25000

Confirm Booking

BOOKINGS:

Bus

Train

Flight

Hotel

YOUR BOOKINGS

Hotel Booking

Hotel: Taj Falaknuma Palace

Location: Hyderabad

Check-in: 2025-07-01

Check-out: 2025-07-02

Rooms: 1

Guests: 1

Booked On: 2025-07-01

₹25,000.00

Cancel Booking

Flight Booking

Flight: Vistara UK-876

Route: Bengaluru → Delhi

Date: 2025-07-02

Departure: 12:00

Arrival: 14:45

Passengers: 1

Booked On: 2025-07-01

₹4,500.00

Cancel Booking

Bus Booking

Conclusion:

The TravelGo Website has been successfully developed and deployed using a scalable and cloud-native architecture. Leveraging AWS services such as EC2 for hosting, DynamoDB for real-time data management, and SNS for instant booking and cancellation notifications, the platform provides a seamless travel booking experience for users. TravelGo enables registered users to search and book buses, trains, flights, and hotels in a centralized, intuitive interface, eliminating the complexities of navigating multiple travel services.

The cloud infrastructure ensures high availability and smooth performance even during peak usage, while the Flask backend ensures efficient handling of user authentication, dynamic booking flows, and data transactions. Real-time notification integration via AWS SNS allows users to receive booking confirmations and cancellations immediately via email, improving communication and user engagement.

In summary, the TravelGo Website offers a modern, reliable, and user-friendly solution for managing travel and accommodation needs. It highlights the potential of cloud-based platforms in building unified travel systems, simplifying operations, and enhancing the overall user experience.

.....THE END.....