🏥 MedTrack – Cloud-Based Healthcare Management System

📌 Project Overview

MedTrack is a web-based healthcare management system that connects patients and doctors. It allows patients to book appointments and view diagnosis reports, while doctors can manage appointments and submit diagnoses. The project uses **AWS DynamoDB** for data storage and **AWS SNS** for real-time notifications.

✨ Key Features

- 🔐 Secure login & role-based access (Patient / Doctor)
- 📅 Book and view appointments
- 📝 Submit and view diagnosis reports
- ☁️ Data stored in AWS DynamoDB
- 📢 Notifications via AWS SNS
- 🌐 Deployed using AWS EC2

⚙️ Tech Stack

- Frontend: HTML, CSS
- Backend: Python (Flask)
- Database: DynamoDB (NoSQL)
- Cloud Services: AWS EC2, AWS SNS
- Version Control: Git & GitHub

AWS Architecture

Entity Relationship (ER)Diagram:

📁 Project Structure

```
MedTrack/
├── app.py
├── .env
├── templates/        # HTML pages
├── static/           # CSS, images
├── utils/            # Logic for AWS & data
├── create_tables.py  # DynamoDB setup (optional)
├── README.md
```

🗄 Database Tables (DynamoDB)

Table	Partition Key	Attributes
Users	username	password, role
Appointments	appointment _ id	patient, doctor, date, time
Diagnoses	diagnosis _ id	patient, doctor, notes

🧪 Testing and Deployment

Local Testing

1. Install dependencies:
   pip install flask boto3 python-dotenv
2. Run the Flask server:
   python app.py

☁ Deployment Steps

1.Launch EC2 Instance

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
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
medtrack-server
Add additional tags
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
Search our full catalog including 1000s of application and OS images
Quick Start
Amazon Linux
macOS
Ubuntu
Windows
Red Hat
SUSE Linux
Debian
Browse more AMIs
Including AMIs from AWS, Marketplace and the Community
Amazon Machine Image (AMI)
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-000ec6c25978d5999
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Cancel
Launch instance
Preview code

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
EC2 > Instances > Launch an instance
Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type
ami-000ec6c25978d5999 (64-bit (x86)) / ami-080f2ccf64a1356c9 (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs
Description
Amazon Linux 2 comes with five years support. It provides Linux kernel 5.10 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.
Amazon Linux 2 Kernel 5.10 AMI 2.0.20250623.0 x86_64 HVM gp2
Architecture
64-bit (x86)
AMI ID
ami-000ec6c25978d5999
Publish Date
2025-06-20
Username
ec2-user
Verified provider
Instance type Info | Get advice
Instance type
t2.micro
Family: t2 1 vCPU 1 GiB Memory Current generation: true
All generations
Compare instance types
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.
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-000ec6c25978d5999
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Cancel
Launch instance
Preview code

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
EC2 > Instances > Launch an instance
Create key pair
Key pair name
Key pairs allow you to connect to your instance securely.
medtrack-server
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
Summary
Instance type
Key pair (login)
Network settings
Launch instance
Preview code

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
EC2 > Instances > Launch an instance
Inbound Security Group Rules
Security group rule 1 (TCP, 22, 157.50.88.125/32)
Remove
Type
ssh
Protocol
TCP
Port range
22
Source type
My IP
Name
Description - optional
e.g. SSH for admin desktop
157.50.88.125/32
Security group rule 2 (TCP, 80, 0.0.0.0/0)
Remove
Type
HTTP
Protocol
TCP
Port range
80
Source type
Anywhere
Source
0.0.0.0/0
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
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-000ec6c25978d5999
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Cancel
Launch instance
Preview code

2.Create IAM Role with necessary permissions and attach to EC2

us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/create
IAM > Roles
Identity and Access Management (IAM)
Search IAM
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Root access management New
Access reports
Access Analyzer
Resource analysis New
Unused access
Analyzer settings
Credential report
Roles (12) 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.
Delete
Create role
Role name
Trusted entities
Last activity
AWSServiceRoleForAPIGateway
AWS Service: ops.apigateway (Servic
AWSServiceRoleForAutoScaling
AWS Service: autoscaling (Service-Li
140 days ago
AWSServiceRoleForECS
AWS Service: ecs (Service-Linked Rol
136 days ago
AWSServiceRoleForOrganizations
AWS Service: organizations (Service-
212 days ago
AWSServiceRoleForSSO
AWS Service: sso (Service-Linked Rol
AWSServiceRoleForSupport
AWS Service: support (Service-Linke
AWSServiceRoleForTrustedAdvisor
AWS Service: trustedadvisor (Service
EC2_MedTrack_Role
AWS Service: ec2
OrganizationAccountAccessRole
Account: 058264256896
1 hour ago
rsoaccount-new
Account: 058264256896
6 minutes ago
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us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/create?trustedEntityType=AWS_SERVICE&selectedService=EC2&selectedUseCase=EC2&policies=arn%3...
IAM > Roles > Create role
Step 1
Select trusted entity
Step 2
Add permissions
Step 3
Name, review, and create
Name, review, and create
Role details
Role name
Enter a meaningful name to identify this role.
EC2_MedTrack_Role
Maximum 64 characters. Use alphanumeric and '+=,.@-_' characters.
Description
Add a short explanation for this role.
Allows EC2 instances to call AWS services on your behalf.
Maximum 1000 characters. Use letters (A-Z and a-z), numbers (0-9), tabs, new lines, or any of the following characters: _+=,. @-/\[{}]!#$%^*();"'`
Step 1: Select trusted entities
Edit
Trust policy
{
"Version": "2012-10-17",
"Statement": [
{
"Effect": "Allow",
"Action": [
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us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/create?trustedEntityType=AWS_SERVICE&selectedService=EC2&selectedUseCase=EC2&policies=arn%3...
IAM > Roles > Create role
Step 2: Add permissions
Edit
Permissions policy summary
Policy name
Type
Attached as
AmazonDynamoDBFullAccess
AWS managed
Permissions policy
AmazonSNSFullAccess
AWS managed
Permissions policy
Step 3: Add tags
Add tags - optional Info
Tags are key-value pairs that you can add to AWS resources to help identify, organize, or search for resources.
No tags associated with the resource.
Add new tag
You can add up to 50 more tags.
Cancel
Previous
Create role
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us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ModifyIAMRole:instanceId=i-0ffbd525dddb91fbb
EC2 > Instances > i-0ffbd525dddb91fbb > Modify IAM role
Modify IAM role Info
Attach an IAM role to your instance.
Instance ID
i-0ffbd525dddb91fbb (medtrack-server)
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_MedTrack_Role
Create new IAM role
Cancel
Update IAM role
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3. Setup DynamoDB Tables: Users, Appointments, Diagnoses

us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#tables
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.
Share feedback
Tables Info
Actions
Delete
Create table
Find tables
Any tag key
Any tag value
Name
Status
Partition key
Sort key
Indexes
Replication Regions
Deletion protection
Favorite
Read capacity mode
Loading tables
CloudShell
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us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#create-table
DynamoDB > Tables > Create table
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.
Users
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.
username
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.
Enter the sort key name
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 modify these settings now, choose 'Customize settings'.
Customize settings
Use these advanced features to make DynamoDB work better for your needs.
Default table settings
These are the default settings for your new table. You can change some of these settings after creating the table.
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us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#create-table

DynamoDB > Tables > Create table

Maximum write capacity units	-	Yes
Local secondary indexes	-	No
Global secondary indexes	-	Yes
Encryption key management	AWS owned key	Yes
Deletion protection	Off	Yes
Resource-based policy	Not active	Yes

Tags

Tags are pairs of keys and optional values, that you can assign to AWS resources. You can use tags to control access to your resources or track your AWS spending.

No tags are associated with the resource.

Add new tag

You can add 50 more tags.

This table will be created with auto scaling deactivated. You do not have permissions to turn on auto scaling.

Cancel | Create table

us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#create-table

DynamoDB > Tables > Create table

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.

Share feedback

Notifications 0 0 1 1 0

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.

Diagnoses

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.

diagnosis_id | 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.

Enter the sort key name | String

1 to 255 characters and case sensitive.

us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#create-table

DynamoDB > Tables > Create table

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.

Share feedback

Notifications 0 0 1 1 0

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.

Appointments

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.

appointment_id | 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.

Enter the sort key name | String

1 to 255 characters and case sensitive.

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us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#tables

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.

Share feedback

Notifications 0 0 1 1 0

Tables (3) Info

Actions | Delete | Create table

Find tables | Any tag key | Any tag value

Name	Status	Partition key	Sort key	Indexes	Replication Regions	Deletion protection	Favorite	Read c
Appointments	Active	appointment_id (S)	-	0	0	Off		On-der
Diagnoses	Active	diagnosis_id (S)	-	0	0	Off		On-der
Users	Active	username (S)	-	0	0	Off		On-der

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4.Configure SNS

us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/create-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::600627341644:assumed-role/rsoaccount-new/68034028d24717cbb9270727 is not authorized to perform: kms:DescribeKey on resource: arn:aws:kms:us-east-1:600627341644:key/c06920cc-9330-4a08-b273-946668080c88 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
Medtrack
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.
My Topic
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us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/topic/arn:aws:sns:us-east-1:600627341644:Medtrack
Amazon SNS > Topics > Medtrack
Amazon SNS
Dashboard
Topics
Subscriptions
Mobile
Push notifications
Text messaging (SMS)
New Feature
Amazon SNS now supports High Throughput FIFO topics. Learn more
Topic Medtrack created successfully.
You can create subscriptions and send messages to them from this topic.
Publish message
Medtrack
Edit
Delete
Publish message
Details
Name
Medtrack
Display name
-
ARN
arn:aws:sns:us-east-1:600627341644:Medtrack
Topic owner
600627341644
Type
Standard
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us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/topic/arn:aws:sns:us-east-1:600627341644:Medtrack

Amazon SNS > Topics > Medtrack

Amazon SNS

- Dashboard
- Topics
- Subscriptions
- Mobile
  - Push notifications
  - Text messaging (SMS)

Medtrack

Edit | Delete | Publish message

Details

Name Medtrack	**Display name** -
ARN arn:aws:sns:us-east-1:600627341644:Medtrack	**Topic owner** 600627341644
Type Standard	

Subscriptions | Access policy | Data protection policy | Delivery policy (HTTP/S) | Delivery status logging | Encryption | Tags

Subscriptions (0)

Edit | Delete | Request confirmation | Confirm subscription | Create subscription

ID	Endpoint	Status	Protocol

No subscriptions found

You don't have any subscriptions to this topic.

Create subscription

us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/create-subscription

Amazon SNS > Subscriptions > Create subscription

Topic ARN

arn:aws:sns:us-east-1:600627341644:Medtrack

Protocol

The type of endpoint to subscribe

Email

Endpoint

An email address that can receive notifications from Amazon SNS.

228x1a4526@khitguntur.ac.in

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

sns.us-east-1.amazonaws.com/confirmation.html?TopicArn=arn:aws:sns:us-east-1:600627341644:Medtrack&Token=2336412f37fb687f5d51e6e2425a8a58770f1bcfd483e9f050200fb4d2...
aws
Simple Notification Service
Subscription confirmed!
You have successfully subscribed.
Your subscription's id is:
arn:aws:sns:us-east-1:600627341644:Medtrack:f5f39845-b936-417a-acf6-d56b67355051
If it was not your intention to subscribe, click here to unsubscribe.

us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/subscription/arn:aws:sns:us-east-1:600627341644:Medtrack:f5f39845-b936-417a-acf6-d56b67355051
Amazon SNS > Topics > Medtrack > Subscription: f5f39845-b936-417a-acf6-d56b67355051
Amazon SNS
Dashboard
Topics
Subscriptions
Mobile
Push notifications
Text messaging (SMS)
New Feature
Amazon SNS now supports High Throughput FIFO topics. Learn more
Subscription to Medtrack created successfully.
The ARN of the subscription is arn:aws:sns:us-east-1:600627341644:Medtrack:f5f39845-b936-417a-acf6-d56b67355051.
Subscription: f5f39845-b936-417a-acf6-d56b67355051
Edit
Delete
Details
ARN
arn:aws:sns:us-east-1:600627341644:Medtrack:f5f39845-b936-417a-acf6-d56b67355051
Endpoint
228x1a4526@khitguntur.ac.in
Topic
Medtrack
Subscription Principal
arn:aws:iam::600627341644:role/rsoaccount-new
Status
Pending confirmation
Protocol
EMAIL
Subscription filter policy
Redrive policy (dead-letter queue)
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5.Configure and Launch Flask Application

- SSH into the instance
- Install Python, Git, and Pip
- Clone the GitHub repo
- Set up .env file with AWS credentials
- Run the Flask app

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ConnectToInstance:instanceId=i-0e439b38571daa87c
EC2 > Instances > i-0e439b38571daa87c > Connect to instance
Connect Info
Connect to an instance using the browser-based client.
EC2 Instance Connect
Session Manager
SSH client
EC2 serial console
Instance ID
i-0e439b38571daa87c (medtrack-server)
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
13.222.1.50
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

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-1&connType=standard&instanceId=i-0e439b38571daa87c&osUser=ec2-user&sshPort=22&addre...
Amazon Linux 2
AL2 End of Life is 2026-06-30.
A newer version of Amazon Linux is available!
Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/
[ec2-user@ip-172-31-17-153 ~]$
i-0e439b38571daa87c (medtrack-server)
PublicIPs: 13.222.1.50 PrivateIPs: 172.31.17.153
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us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-1&connType=standard&instanceId=i-0e439b38571daa87c&osUser=ec2-user&sshPort=22&addre...

United States (N. Virginia) ▼ rsoaccount-new/68034028d24717cbb9270727 @ rsosandboxnew96 ▼

```
  ,     #_
  ~\_  ####_        Amazon Linux 2
 ~~  \_#####\
 ~~     \###|       AL2 End of Life is 2026-06-30.
 ~~       \#/ ___
  ~~       V~' '->
   ~~~         /    A newer version of Amazon Linux is available!
     ~~._.   _/
       _/ _/        Amazon Linux 2023, GA and supported until 2028-03-15.
     _/m/'            https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-172-31-17-153 ~]$ sudo su
[root@ip-172-31-17-153 ec2-user]# cd --
[root@ip-172-31-17-153 ~]# whoami
root
[root@ip-172-31-17-153 ~]# sudo su
[root@ip-172-31-17-153 ~]# whoami
root
[root@ip-172-31-17-153 ~]# yum install python3
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                                                                                                  | 3.6 kB  00:00:00
Package python3-3.7.16-1.amzn2.0.17.x86_64 already installed and latest version
Nothing to do
[root@ip-172-31-17-153 ~]#
```

i-0e439b38571daa87c (medtrack-server)

PublicIPs: 13.222.1.50 PrivateIPs: 172.31.17.153

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NIFTY -0.12% Search ENG IN 13:56 04-07-2025

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-1&connType=standard&instanceId=i-0e439b38571daa87c&osUser=ec2-user&sshPort=22&addre...

United States (N. Virginia) ▼ rsoaccount-new/68034028d24717cbb9270727 @ rsosandboxnew96 ▼

```
Transaction Summary
================================================================================================================================
Install  1 Package

Total download size: 2.1 M
Installed size: 9.6 M
Is this ok [y/d/N]: y
Downloading packages:
python2-pip-20.2.2-1.amzn2.0.10.noarch.rpm                                                                  | 2.1 MB  00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : python2-pip-20.2.2-1.amzn2.0.10.noarch                                                                     1/1
  Verifying  : python2-pip-20.2.2-1.amzn2.0.10.noarch                                                                     1/1

Installed:
  python2-pip.noarch 0:20.2.2-1.amzn2.0.10

Complete!
[root@ip-172-31-17-153 ~]# yum install git
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package git.x86_64 0:2.47.1-1.amzn2.0.3 will be installed
--> Processing Dependency: git-core = 2.47.1-1.amzn2.0.3 for package: git-2.47.1-1.amzn2.0.3.x86_64
```

i-0e439b38571daa87c (medtrack-server)

PublicIPs: 13.222.1.50 PrivateIPs: 172.31.17.153

CloudShell Feedback

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```
                        separate git dir from working tree
    --[no-]ref-format <format>
                        specify the reference format to use
    -c, --[no-]config <key=value>
                        set config inside the new repository
    --[no-]server-option <server-specific>
                        option to transmit
    -4, --ipv4          use IPv4 addresses only
    -6, --ipv6          use IPv6 addresses only
    --[no-]filter <args>  object filtering
    --[no-]also-filter-submodules
                        apply partial clone filters to submodules
    --[no-]remote-submodules
                        any cloned submodules will use their remote-tracking branch
    --[no-]sparse       initialize sparse-checkout file to include only files at root
    --[no-]bundle-uri <uri>
                        a URI for downloading bundles before fetching from origin remote

[root@ip-172-31-17-153 ~]# git clone https://github.com/muralikrishna4526/medtrack.git
Cloning into 'medtrack'...
remote: Enumerating objects: 105, done.
remote: Counting objects: 100% (105/105), done.
remote: Compressing objects: 100% (65/65), done.
remote: Total 105 (delta 43), reused 92 (delta 35), pack-reused 0 (from 0)
Receiving objects: 100% (105/105), 103.24 KiB | 11.47 MiB/s, done.
Resolving deltas: 100% (43/43), done.
[root@ip-172-31-17-153 ~]# cd medtrack
[root@ip-172-31-17-153 medtrack]#
```

i-0e439b38571daa87c (medtrack-server)

PublicIPs: 13.222.1.50 PrivateIPs: 172.31.17.153

```
    --[no-]ref-format <format>
                        specify the reference format to use
    -c, --[no-]config <key=value>
                        set config inside the new repository
    --[no-]server-option <server-specific>
                        option to transmit
    -4, --ipv4          use IPv4 addresses only
    -6, --ipv6          use IPv6 addresses only
    --[no-]filter <args>  object filtering
    --[no-]also-filter-submodules
                        apply partial clone filters to submodules
    --[no-]remote-submodules
                        any cloned submodules will use their remote-tracking branch
    --[no-]sparse       initialize sparse-checkout file to include only files at root
    --[no-]bundle-uri <uri>
                        a URI for downloading bundles before fetching from origin remote

[root@ip-172-31-17-153 ~]# git clone https://github.com/muralikrishna4526/medtrack.git
Cloning into 'medtrack'...
remote: Enumerating objects: 105, done.
remote: Counting objects: 100% (105/105), done.
remote: Compressing objects: 100% (65/65), done.
remote: Total 105 (delta 43), reused 92 (delta 35), pack-reused 0 (from 0)
Receiving objects: 100% (105/105), 103.24 KiB | 11.47 MiB/s, done.
Resolving deltas: 100% (43/43), done.
[root@ip-172-31-17-153 ~]# cd medtrack
[root@ip-172-31-17-153 medtrack]# vim requirements.txt
[root@ip-172-31-17-153 medtrack]# pip3 install -r requirements.txt
```

i-0e439b38571daa87c (medtrack-server)

PublicIPs: 13.222.1.50 PrivateIPs: 172.31.17.153

```
[root@ip-172-31-17-153 ~]# cd medtrack
[root@ip-172-31-17-153 medtrack]# vim requirements.txt
[root@ip-172-31-17-153 medtrack]# pip3 install -r requirements.txt
WARNING: Running pip install with root privileges is generally not a good idea. Try `pip3 install --user` instead.
Collecting flask
  Downloading Flask-2.2.5-py3-none-any.whl (101 kB)
     |                                | 101 kB 14.6 MB/s
Collecting boto3
  Downloading boto3-1.33.13-py3-none-any.whl (139 kB)
     |                                | 139 kB 42.2 MB/s
Collecting python-dotenv
  Downloading python_dotenv-0.21.1-py3-none-any.whl (19 kB)
Collecting Jinja2>=3.0
  Downloading jinja2-3.1.6-py3-none-any.whl (134 kB)
     |                                | 134 kB 41.6 MB/s
Collecting click>=8.0
  Downloading click-8.1.8-py3-none-any.whl (98 kB)
     |                                | 98 kB 10.9 MB/s
Collecting Werkzeug>=2.2.2
  Downloading Werkzeug-2.2.3-py3-none-any.whl (233 kB)
     |                                | 233 kB 56.1 MB/s
Collecting itsdangerous>=2.0
  Downloading itsdangerous-2.1.2-py3-none-any.whl (15 kB)
Collecting importlib-metadata>=3.6.0; python_version < "3.10"
  Downloading importlib_metadata-6.7.0-py3-none-any.whl (22 kB)
Collecting botocore<1.34.0,>=1.33.13
  Downloading botocore-1.33.13-py3-none-any.whl (11.8 MB)
     |                                | 11.0 MB 36.1 MB/s eta 0:00:01
```

i-0e439b38571daa87c (medtrack-server)

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```
  Downloading six-1.17.0-py2.py3-none-any.whl (11 kB)
Installing collected packages: MarkupSafe, Jinja2, zipp, typing-extensions, importlib-metadata, click, Werkzeug, itsdangerous, flask, six, python-dateutil, jmespath, u
rllib3, botocore, s3transfer, boto3, python-dotenv
  WARNING: The script flask is installed in '/usr/local/bin' which is not on PATH.
  Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
  WARNING: The script dotenv is installed in '/usr/local/bin' which is not on PATH.
  Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
Successfully installed Jinja2-3.1.6 MarkupSafe-2.1.5 Werkzeug-2.2.3 boto3-1.33.13 botocore-1.33.13 click-8.1.8 flask-2.2.5 importlib-metadata-6.7.0 itsdangerous-2.1.2
jmespath-1.0.1 python-dateutil-2.9.0.post0 python-dotenv-0.21.1 s3transfer-0.8.2 six-1.17.0 typing-extensions-4.7.1 urllib3-1.26.20 zipp-3.15.0
[root@ip-172-31-17-153 medtrack]# vim .env
[root@ip-172-31-17-153 medtrack]# python3 app.py
/usr/local/lib/python3.7/site-packages/boto3/compat.py:82: PythonDeprecationWarning: Boto3 will no longer support Python 3.7 starting December 13, 2023. To continue re
ceiving service updates, bug fixes, and security updates please upgrade to Python 3.8 or later. More information can be found here: https://aws.amazon.com/blogs/develo
per/python-support-policy-updates-for-aws-sdks-and-tools/
  warnings.warn(warning, PythonDeprecationWarning)
 * 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 http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
/usr/local/lib/python3.7/site-packages/boto3/compat.py:82: PythonDeprecationWarning: Boto3 will no longer support Python 3.7 starting December 13, 2023. To continue re
ceiving service updates, bug fixes, and security updates please upgrade to Python 3.8 or later. More information can be found here: https://aws.amazon.com/blogs/develo
per/python-support-policy-updates-for-aws-sdks-and-tools/
  warnings.warn(warning, PythonDeprecationWarning)
 * Debugger is active!
 * Debugger PIN: 997-928-107
```

i-0e439b38571daa87c (medtrack-server)

PublicIPs: 13.222.1.50 PrivateIPs: 172.31.17.153

📷 Screenshots

1.Homepage

MedTrack
Home
Register
About
Contact us
Our Core Features
Book Appointments
Patients can schedule consultations with doctors easily.
Doctor Dashboard
Doctors can view upcoming appointments and manage patients.
Diagnosis Reports
Submit and track patient diagnoses with secure records.

MedTrack
Home
Register
About
Contact us
Diagnosis Reports
Submit and track patient diagnoses with secure records.
Contact Us
If you have any questions or need help, feel free to reach out:
Phone: +91 98765 43210
Email: support@medtrack.com
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2.Register

Create Your Account
Username:
Enter your name
Password:
Create a secure password
Register as:
-- Select Role --
Register
Already have an account?
Login here
← Back to Home

Create Your Account
Username:
Enter your name
Password:
Create a secure password
Register as:
-- Select Role --
-- Select Role --
Patient
Doctor
Already have an account?
Login here
← Back to Home

3.Login

4.Patient Dashboard

5.Appointment Booking Form

6.View Appointments

7.View My Diagnosis

8.Doctor Dashboard

9.View Your Appointments

10.Submit Daignosis

11.View Diagnosis

🔗 GitHub Repository

https://github.com/varun1627/Medtrack_project

✅ Conclusion

MedTrack is a secure, cloud-ready solution for managing patient appointments and diagnoses. It demonstrates full-stack development with real AWS services and follows a clean, modular design.

Prepared by: VARUNKUMAR GOLI
SmartBridge AWS Internship Project - 2025