

```

ai-interaction-service:
  path: src/services/ai-interaction-service
appointment-service:
  path: src/services/appointment-service
doctor-service:
  path: src/services/doctor-service
patient-service:
  path: src/services/patient-service
[ec2-user@ip-172-31-244-219 health-hub-backend]$ tree -L 3 src/
src/
├── services
│   ├── ai-interaction-service
│   │   ├── package.json
│   │   ├── serverless.yml
│   │   ├── src
│   │   ├── tsconfig.json
│   │   └── webpack.config.js
│   ├── appointment-service
│   │   ├── package.json
│   │   ├── serverless.yml
│   │   ├── src
│   │   ├── tsconfig.json
│   │   └── webpack.config.js
│   ├── doctor-service
│   │   ├── package.json
│   │   ├── serverless.yml
│   │   ├── src
│   │   ├── tsconfig.json
│   │   └── webpack.config.js
│   ├── patient-service
│   │   ├── package.json
│   │   ├── serverless.yml
│   │   ├── src
│   │   ├── tsconfig.json
│   │   └── webpack.config.js
│   └── user-service
│       ├── package.json
│       ├── serverless.yml
│       ├── src
│       ├── tsconfig.json
│       └── webpack.config.js
11 directories, 20 files
[ec2-user@ip-172-31-244-219 health-hub-backend]$ npm install

```

i.06227dde341880150 (/tch-hh-ue)

```

1 directories, 20 files
ec2-user@ip-172-31-244-219 health-hub-backend]$ npm install
pm warn deprecated inflight@1.0.6: This module is not supported, and leaks memory. Do not use it. Check out lru-cache if you want a good and test
ve and powerful.
pm warn deprecated lodash.get@4.4.2: This package is deprecated. Use the optional chaining (?.) operator instead.
pm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
pm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
pm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
pm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
pm warn deprecated querystring@0.2.1: The querystring API is considered Legacy. new code should use the URLSearchParams API instead.
pm warn deprecated querystring@0.2.0: The querystring API is considered Legacy. new code should use the URLSearchParams API instead.
pm warn deprecated uuid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances, which is k
pm warn deprecated node-domexception@1.0.0: Use your platform's native DOMException instead
pm warn deprecated superagent@7.1.6: Please upgrade to superagent v10.2.2+, see release notes at https://github.com/forwardemail/superagent/relea
11.net

added 1025 packages, and audited 1026 packages in 56s

96 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
pm notice
pm notice New minor version of npm available! 11.6.2 -> 11.7.0
pm notice Changelog: https://github.com/npm/cli/releases/tag/v11.7.0
pm notice To update run: npm install -g npm@11.7.0
pm notice
ec2-user@ip-172-31-244-219 health-hub-backend$

```

```

[ec2-user@ip-172-31-244-219 health-hub-backend]$ npm run deploy

```

```

> hh-backend@1.0.0 deploy
> serverless deploy --stage dev --max-concurrency 1

```

Deploying to stage dev

```

❯ user-service > deploying > 26s
  ai-interaction-service > waiting
  appointment-service > waiting
  doctor-service > waiting
  patient-service > waiting

```

Press [?] to enable verbose logs

i-06227dde341889150 (tcb-hh-ws)

PublicIPs: 3.239.164.134 PrivateIPs: 172.31.244.219

```
[ec2-user@ip-172-31-244-219 health-hub-backend]$ npm run deploy
```

```
> hh-backend@1.0.0 deploy
> serverless deploy --stage dev --max-concurrency 1
```

Deploying to stage dev

```
✓ user-service > deployed > 101s
✓ ai-interaction-service > deployed > 99s
✓ appointment-service > deployed > 105s
✓ doctor-service > deployed > 98s
✓ patient-service > deployed > 99s
```

```
[ec2-user@ip-172-31-244-219 health-hub-backend]$
```

i-06227dde341889150 (tcb-hh-ws)

PublicIPs: 3.239.164.134 PrivateIPs: 172.31.244.219

The screenshot shows the AWS CloudFormation console. The left sidebar contains navigation links for CloudFormation, Stacks, Stack refactors, StackSets, Exports, Infrastructure Composer, IaC generator, Hooks overview, Invocation summary, Hooks, Registry, Public extensions, Activated extensions, and Publisher. The main content area displays a list of stacks under the heading "Stacks (5)". A notification banner at the top states: "CloudFormation Console now supports multiple new features. See below for more details." The stacks table has columns for Stack name, Status, Created time, and Description. All stacks are in the "UPDATE_COMPLETE" status.

Stack name	Status	Created time	Description
hh-patient-dev	UPDATE_COMPLETE	2025-12-24 10:26:03 UTC-0330	The AWS CloudFormation template for this Serverless application
hh-doctor-dev	UPDATE_COMPLETE	2025-12-24 10:24:24 UTC-0330	The AWS CloudFormation template for this Serverless application
hh-appointment-dev	UPDATE_COMPLETE	2025-12-24 10:22:40 UTC-0330	The AWS CloudFormation template for this Serverless application
hh-ai-interaction-dev	UPDATE_COMPLETE	2025-12-24 10:21:00 UTC-0330	The AWS CloudFormation template for this Serverless application
hh-user-dev	UPDATE_COMPLETE	2025-12-24 10:19:11 UTC-0330	The AWS CloudFormation template for this Serverless application

The screenshot shows the AWS Lambda console. The left sidebar contains navigation links for Lambda, Dashboard, Applications, Functions, Additional resources, Capacity providers, Code signing configurations, Event source mappings, Layers, Replicas, Related AWS resources, and Step Functions state machines. The main content area displays a list of functions under the heading "Functions (27)". A notification banner at the top states: "Last fetched 2025-12-24, 10:45:14 a.m." The functions table has columns for Function name, Description, Package type, Runtime, Type, and Last modified. All functions are of type "Standard" and use the "Node.js 18.x" runtime.

Function name	Description	Package type	Runtime	Type	Last modified
hh-ai-interaction-dev-virtualAssistant	-	Zip	Node.js 18.x	Standard	24 minutes ago
hh-ai-interaction-dev-listInteractions	-	Zip	Node.js 18.x	Standard	24 minutes ago
hh-ai-interaction-dev-textToSpeech	-	Zip	Node.js 18.x	Standard	24 minutes ago
hh-ai-interaction-dev-createInteraction	-	Zip	Node.js 18.x	Standard	24 minutes ago
hh-ai-interaction-dev-getInteraction	-	Zip	Node.js 18.x	Standard	24 minutes ago

API Gateway

APIs

Custom domain names

Domain name access associations

VPC links

API: dev-hh-user... (nwaqdtv6k)

Develop

Routes

Authorization

Integrations

CORS

Reimport

Export

Deploy

Stages

dev-hh-user

Stage: Deploy

API details

API ID

nwaqdtv6k

Protocol

HTTP

Created

2025-12-24

Description

No Description

IP address type

IPv4

Default endpoint

enabled

<https://nwaqdtv6k.execute-api.us-east-1.amazonaws.com>

ARN

arn:aws:apigateway:us-east-1::apis/nwaqdtv6k

Stages for dev-hh-user (1)

Find resources

Stage name	Invoke URL	Attached deployment	Auto deploy	Last updated
Sdefault	https://nwaqdtv6k.execute-api.us-east-1.amazonaws.com	bw44s	enabled	2025-12-24

Not secure 3.239.164.134:5173

Sign in to your account

Email:

Password:

Sign in

Need an account? Register

HealthHub

Logged in as: doctor

Dashboard

AI Speech

AI Speech Converter

3.239.164.134:5173 says

Speech conversion saved successfully to patient record!

OK

Ava Brown

Select Language

English (US)

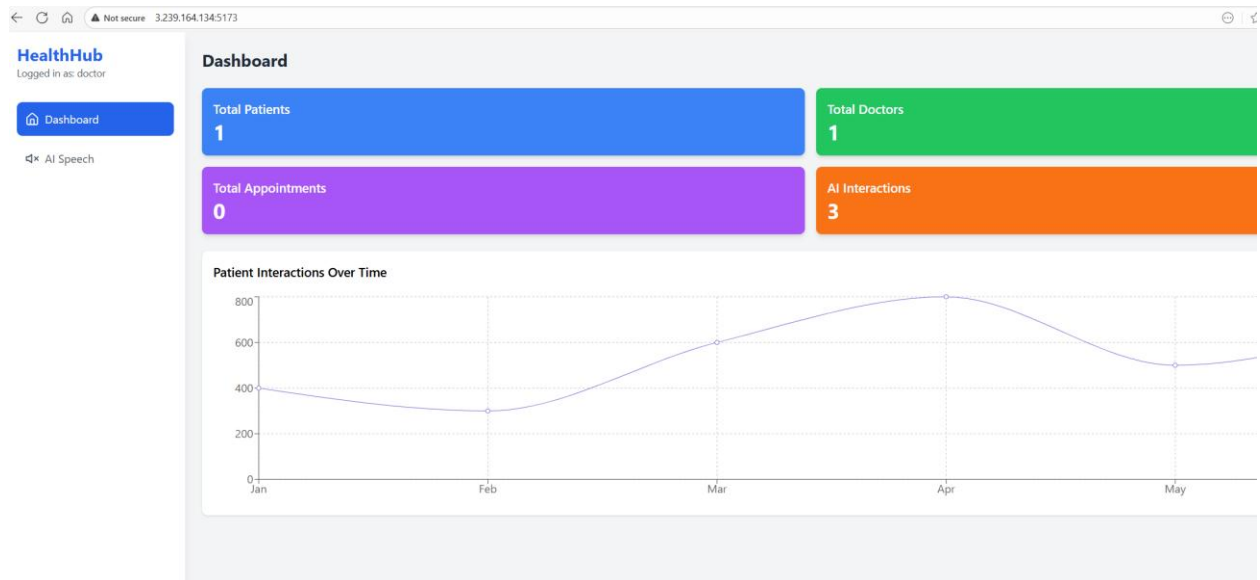
Text to Convert

Patient is allergic to penicillin. Avoid prescribing any medications containing penicillin derivatives

0:00 / 0:06

Convert to Speech

Saving...



HealthHub
Welcome, Patient

Dashboard

Medical Records

Appointments

Welcome, Ava

Your Information

Name: Ava Brown
Date of Birth: 2000-12-31
Contact: 1111111

Upcoming Appointments

No upcoming appointments

←↻🏠

Not secure3.239.164.134:5173

🔒

HealthHub

Welcome, Patient

🏠 Dashboard

📄 Medical Records

📅 Appointments

Medical Records

AI Speech Interactions

Date: 2025-12-24, 11:58:30 a.m.

Original Text:

Patient is allergic to penicillin. Avoid prescribing any medications containing penicillin derivatives

▶ 0:00 / 0:06 🔊 ⋮

Date: 2025-12-24, 11:59:43 a.m.

Original Text:

Administer pain relief every 6 hours. Keep the wound area clean and dry. Schedule follow-up for stitch removal in 7 days

▶ 0:00 / 0:08 🔊 ⋮

Date: 2025-12-24, 12:00:49 p.m.

Original Text:

Prescrever 10mg de Atorvastatina uma vez ao dia, antes de dormir, para controle dos níveis de colesterol

▶ 0:00 / 0:07 🔊 ⋮

←↻🏠

Not secure3.239.164.134:5173

🔒

HealthHub

Welcome, Patient

🏠 Dashboard

📄 Medical Records

📅 Appointments

Appointments

No appointments scheduled

Create New Appointment

Doctor

Dr. David Lee

Date and Time

2026-01-14 03:10 PM

Notes

Medical treatment follow up

CancelCreate

←↻🏠

Not secure3.239.164.134:5173

🔒

HealthHub

Welcome, Patient

🏠 Dashboard

📄 Medical Records

📅 Appointments

Appointments

Date: 2026-01-14, 3:10:00 p.m.

Doctor: Dr. David

Status: scheduled

Notes: Medical treatment follow up