Setting Up a Comprehensive Student Details API with AWS API Gateway, Lambda, and DynamoDB

To create a comprehensive API in API Gateway, define both GET and POST methods for student details. In the POST method, handle student registration by accepting the fields (Id, name, cgpa, mobile, email, blood group) and storing them in DynamoDB using a Lambda function. For the GET method, configure it to retrieve student details based on the unique Student ID from DynamoDB, utilizing another Lambda function. Ensure the API Gateway is connected to the respective Lambdafunctions for seamless integration. This approach enables users to register new students using thePOST method and retrieve student details using the GET method by specifying the unique StudentID, enhancing the API's functionality and usability.

Step-by-Step Process

1. Set Up DynamoDB

1. **Create a DynamoDB Table:**
    - Go to AWS Management Console.
    - Navigate to DynamoDB and create a new table named `Students`.
    - Set `Id` as the primary key.

2. Create Lambda Functions

2. **Create a Lambda Function for POST Method:**
    - Go to AWS Lambda console.
    - Create a new function named `RegisterStudent`.
    - Write code to save the fields: Id, name, cgpa, mobile, email, and blood group in the `Students` table.
3. **Create a Lambda Function for GET Method:**
    - Create another function named `GetStudentDetails`.
    - Write code to retrieve student details by Student ID from the `Students` table.

3. Set Up API Gateway

4. **Create a New API:**

   - Go to API Gateway console.
   - Create a new REST API named `StudentDetailsAPI`.

5. **Define POST Method:**

   - Under `StudentDetailsAPI`, create a resource named `students`.
   - Add a `POST` method to `students`.
   - Connect it to the `RegisterStudent` Lambda function.

6. **Define GET Method:**

   - Under `students`, create a resource named `{id}` (path parameter).
   - Add a `GET` method to `{id}`.
   - Connect it to the `GetStudentDetails` Lambda function.

4. Configure API Gateway Methods

7. **Configure POST Method:**

   - In the `POST` method settings, configure as needed.
   - Deploy the API to a stage (e.g., `prod`).

8. **Configure GET Method:**

   - In the `GET` method settings, configure request parameters.
   - Deploy the API to the same stage.

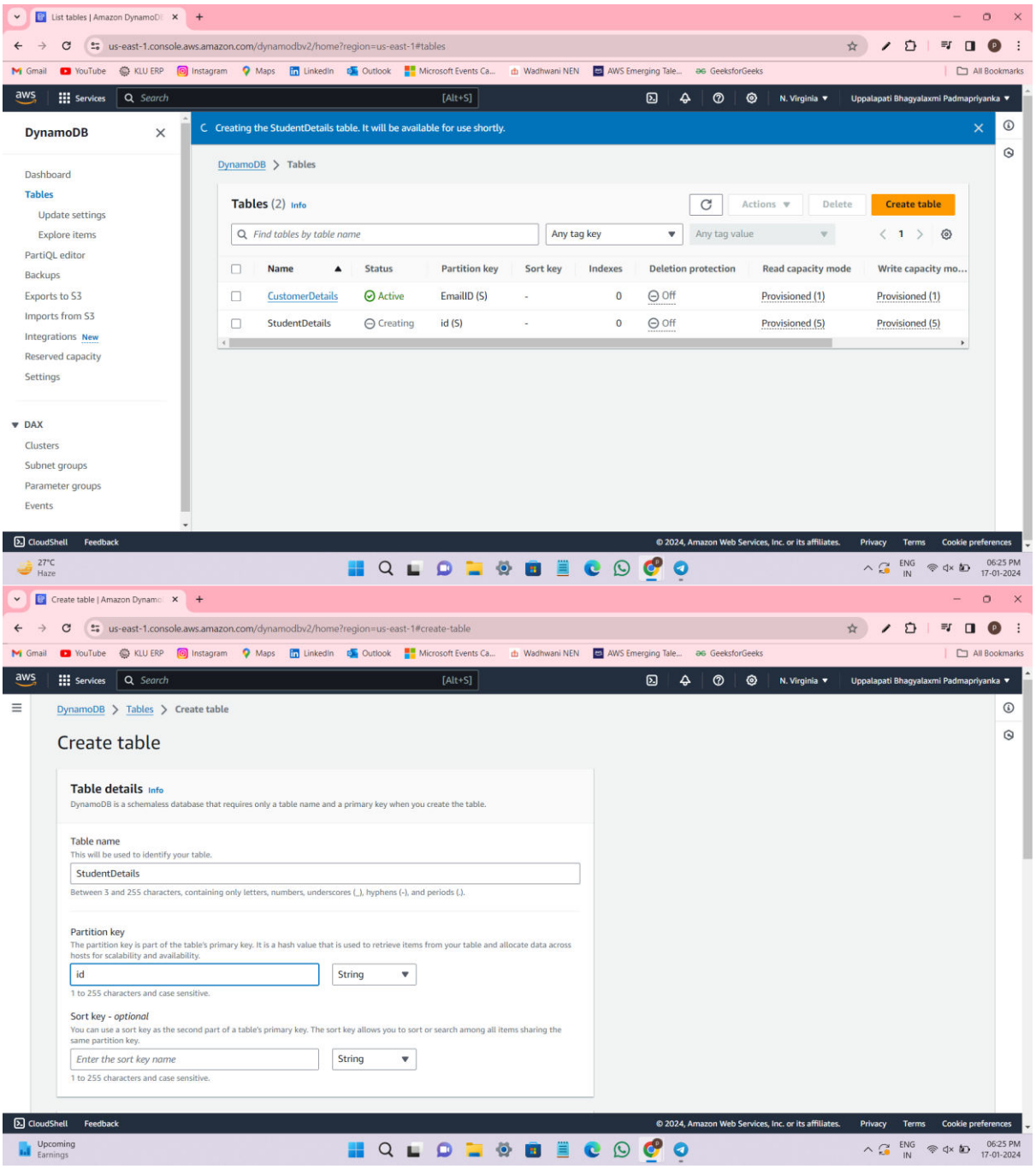
5. Test the API

9. **Test the POST Method:**

   - Use Postman or the API Gateway console to send a POST request to `/students` with student details.
   - Check if data is stored in DynamoDB.

10. **Test the GET Method:**

    - Use Postman or the API Gateway console to send a GET request to `/students/{id}` with the Student ID.
    - Check if correct details are retrieved from DynamoDB.


List tables | Amazon DynamoDB
us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#tables
Services
Search
[Alt+S]
N. Virginia
Uppalapati Bhagyalaxmi Padmapriyanka
DynamoDB
Dashboard
Tables
Update settings
Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations New
Reserved capacity
Settings
DAX
Clusters
Subnet groups
Parameter groups
Events
Creating the StudentDetails table. It will be available for use shortly.
DynamoDB > Tables
Tables (2) Info
Actions
Delete
Create table
Find tables by table name
Any tag key
Any tag value
Name
Status
Partition key
Sort key
Indexes
Deletion protection
Read capacity mode
Write capacity mo...
CustomerDetails
Active
EmailID (S)
0
Off
Provisioned (1)
Provisioned (1)
StudentDetails
Creating
id (S)
0
Off
Provisioned (5)
Provisioned (5)
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Create table | Amazon DynamoDB
us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#create-table
Services
Search
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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.
StudentDetails
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.
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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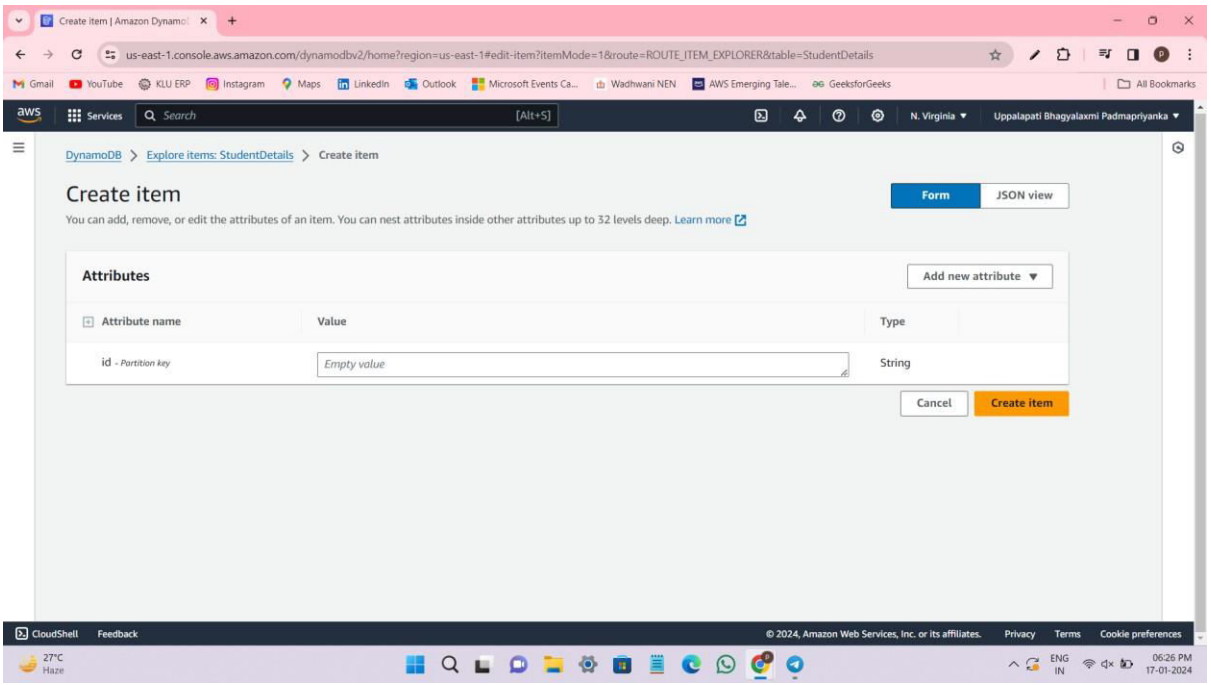
Create item | Amazon Dynamo
us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#edit-item?itemMode=1&route=ROUTE_ITEM_EXPLORER&table=StudentDetails
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
Search
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DynamoDB
Explore items: StudentDetails
Create item
Create item
Form
JSON view
You can add, remove, or edit the attributes of an item. You can nest attributes inside other attributes up to 32 levels deep. Learn more
Attributes
Add new attribute
Attribute name
Value
Type
id - Partition key
Empty value
String
Cancel
Create item
CloudShell
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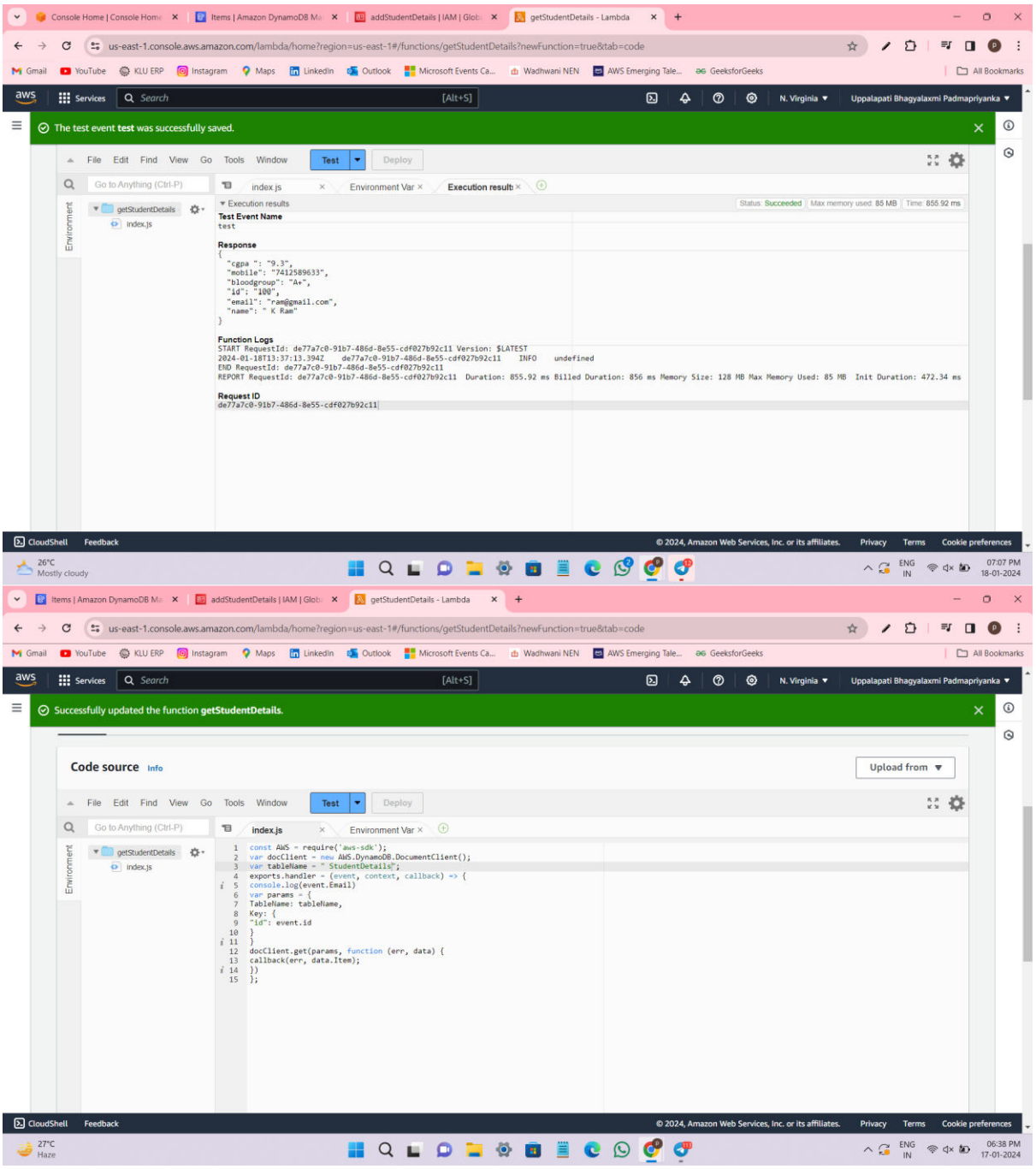
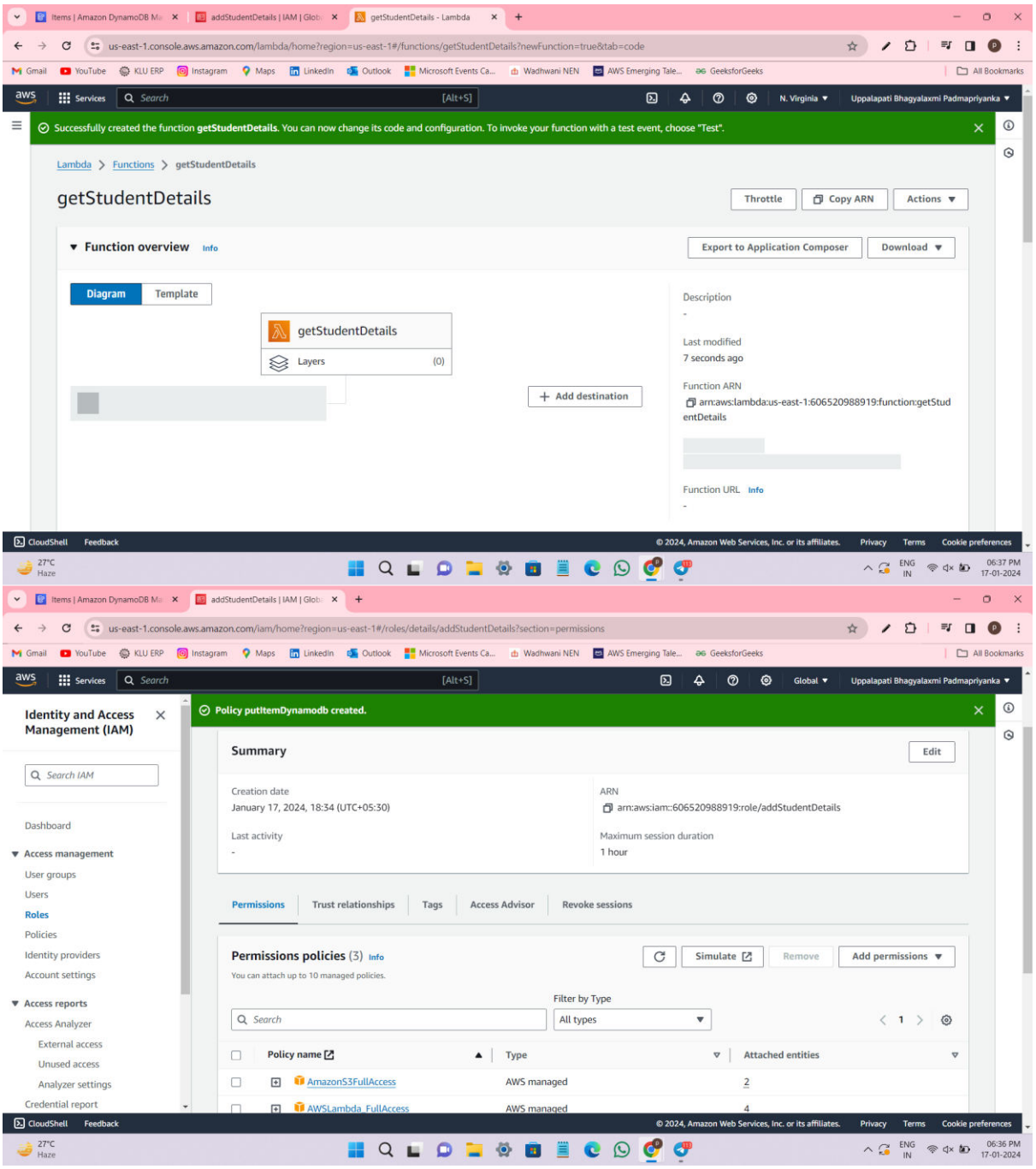

The test event test was successfully saved.
Test
Deploy
Execution results
Test Event Name
test
Response
{
"cgpa ": "9.3",
"mobile": "7412589633",
"bloodgroup": "A+",
"id": "100",
"email": "ram@gmail.com",
"name": " K Ram"
}
Function Logs
START RequestId: de77a7c0-91b7-486d-8e55-cdf027b92c11 Version: $LATEST
2024-01-18T13:37:13.394Z de77a7c0-91b7-486d-8e55-cdf027b92c11 INFO undefined
END RequestId: de77a7c0-91b7-486d-8e55-cdf027b92c11
REPORT RequestId: de77a7c0-91b7-486d-8e55-cdf027b92c11 Duration: 855.92 ms Billed Duration: 856 ms Memory Size: 128 MB Max Memory Used: 85 MB Init Duration: 472.34 ms
Request ID
de77a7c0-91b7-486d-8e55-cdf027b92c11

Successfully updated the function getStudentDetails.
Code source
Upload from
Test
Deploy
const AWS = require('aws-sdk');
var docClient = new AWS.DynamoDB.DocumentClient();
var tableName = " StudentDetails";
exports.handler = (event, context, callback) => {
console.log(event.Email)
var params = {
TableName: tableName,
Key: {
"id": event.id
}
}
docClient.get(params, function (err, data) {
callback(err, data.Item);
})
};


Items | Amazon DynamoDB
addStudentDetails | IAM | Glob
getStudentDetails - Lambda
us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/getStudentDetails?newFunction=true&tab=code
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
Search
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Successfully created the function getStudentDetails. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
Lambda > Functions > getStudentDetails
getStudentDetails
Throttle
Copy ARN
Actions
Function overview Info
Export to Application Composer
Download
Diagram
Template
getStudentDetails
Layers
(0)
Add destination
Description
-
Last modified
7 seconds ago
Function ARN
arn:aws:lambda:us-east-1:606520988919:function:getStudentDetails
Function URL Info
-
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ENG
IN
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Items | Amazon DynamoDB
addStudentDetails | IAM | Glob
us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/details/addStudentDetails?section=permissions
Global
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Identity and Access Management (IAM)
Search IAM
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access Analyzer
External access
Unused access
Analyzer settings
Credential report
Policy putItemDynamodb created.
Summary
Edit
Creation date
January 17, 2024, 18:34 (UTC+05:30)
ARN
arn:aws:iam::606520988919:role/addStudentDetails
Last activity
-
Maximum session duration
1 hour
Permissions
Trust relationships
Tags
Access Advisor
Revoke sessions
Permissions policies (3) Info
You can attach up to 10 managed policies.
Simulate
Remove
Add permissions
Filter by Type
Search
All types
Policy name
Type
Attached entities
AmazonS3FullAccess
AWS managed
2
AWSLambda_FullAccess
AWS managed
4
06:36 PM
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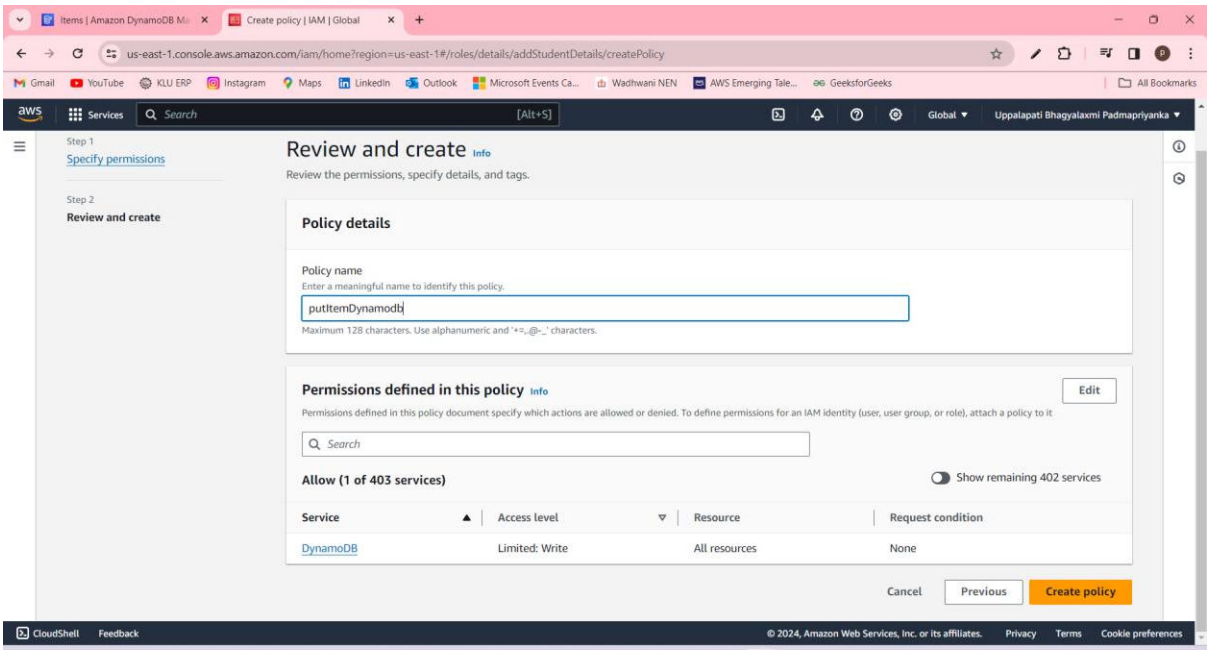
Items | Amazon DynamoDB
Create policy | IAM | Global
us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/details/addStudentDetails/createPolicy
Services
Search
[Alt+S]
Global
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Step 1
Specify permissions
Step 2
Review and create
Review and create Info
Review the permissions, specify details, and tags.
Policy details
Policy name
Enter a meaningful name to identify this policy.
putItemDynamodb
Maximum 128 characters. Use alphanumeric and '+=,.@-_' characters.
Permissions defined in this policy Info
Edit
Permissions defined in this policy document specify which actions are allowed or denied. To define permissions for an IAM identity (user, user group, or role), attach a policy to it
Search
Allow (1 of 403 services)
Show remaining 402 services
Service
Access level
Resource
Request condition
DynamoDB
Limited: Write
All resources
None
Cancel
Previous
Create policy
CloudShell
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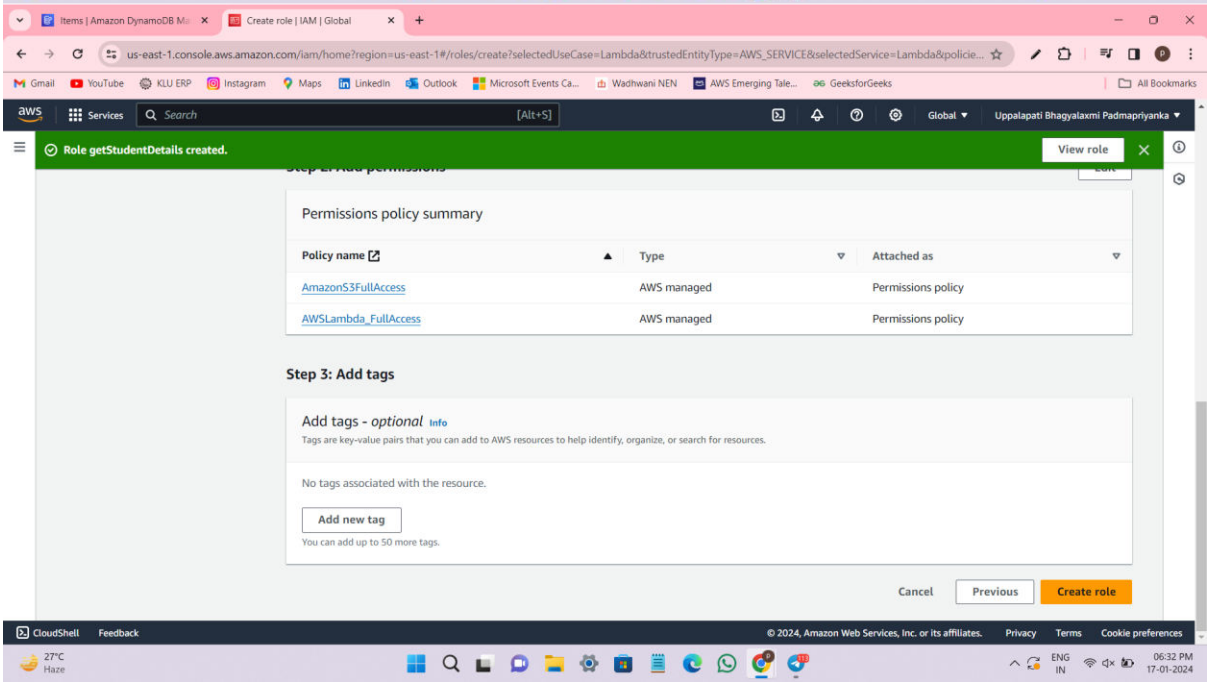
Items | Amazon DynamoDB
Create role | IAM | Global
us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/create?selectedUseCase=Lambda&trustedEntityType=AWS_SERVICE&selectedService=Lambda&policie...
Services
Search
[Alt+S]
Global
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Role getStudentDetails created.
View role
Permissions policy summary
Policy name
Type
Attached as
AmazonS3FullAccess
AWS managed
Permissions policy
AWSLambda_FullAccess
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
CloudShell
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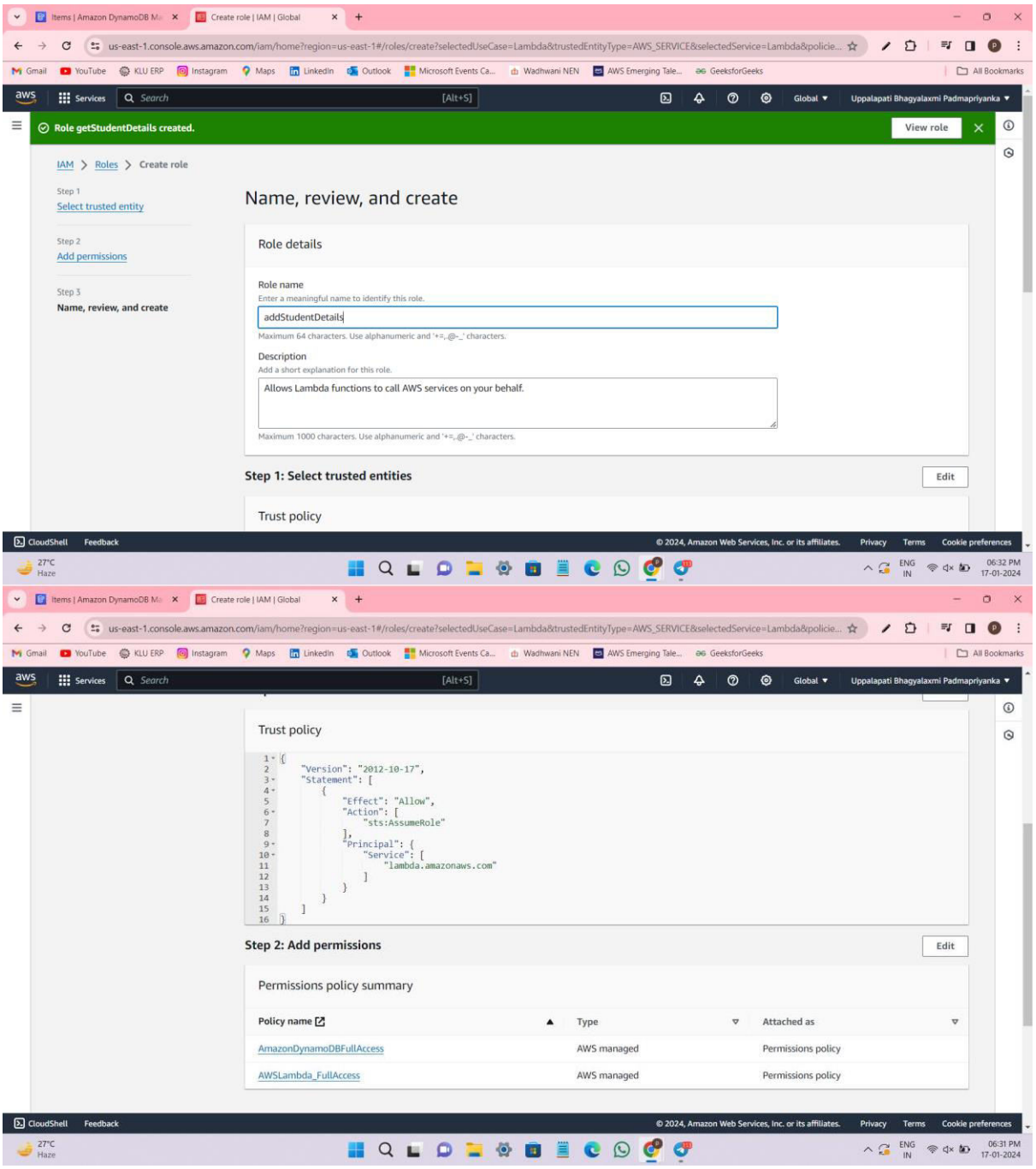
Role getStudentDetails created.
View role
IAM > Roles > Create role
Step 1
Select trusted entity
Step 2
Add permissions
Step 3
Name, review, and create
Name, review, and create
Role details
Role name
Enter a meaningful name to identify this role.
addStudentDetails
Maximum 64 characters. Use alphanumeric and '+=,.@-_' characters.
Description
Add a short explanation for this role.
Allows Lambda functions to call AWS services on your behalf.
Maximum 1000 characters. Use alphanumeric and '+=,.@-_' characters.
Step 1: Select trusted entities
Edit
Trust policy
CloudShell
Feedback
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Trust policy
{
"Version": "2012-10-17",
"Statement": [
{
"Effect": "Allow",
"Action": [
"sts:AssumeRole"
],
"Principal": {
"Service": [
"lambda.amazonaws.com"
]
}
}
]
}
Step 2: Add permissions
Edit
Permissions policy summary
Policy name
Type
Attached as
AmazonDynamoDBFullAccess
AWS managed
Permissions policy
AWSLambda_FullAccess
AWS managed
Permissions policy
CloudShell
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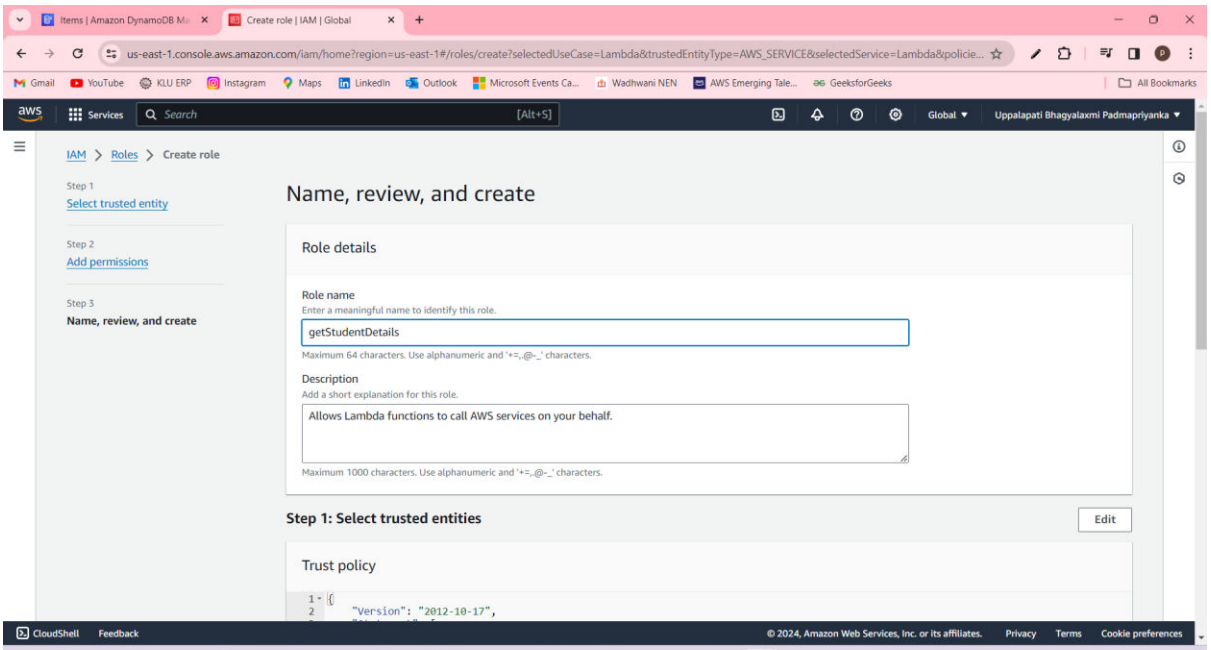
Items | Amazon DynamoDB
Create role | IAM | Global
us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles/create?selectedUseCase=Lambda&trustedEntityType=AWS_SERVICE&selectedService=Lambda&policie...
Gmail YouTube KLU ERP Instagram Maps LinkedIn Outlook Microsoft Events Ca... Wadhwani NEN AWS Emerging Tale... GeeksforGeeks All Bookmarks
aws Services Search [Alt+S] Global Uppalapati Bhagyalaxmi Padmapriyanka
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.
getStudentDetails
Maximum 64 characters. Use alphanumeric and '+=,.@-_' characters.
Description
Add a short explanation for this role.
Allows Lambda functions to call AWS services on your behalf.
Maximum 1000 characters. Use alphanumeric and '+=,.@-_' characters.
Step 1: Select trusted entities
Edit
Trust policy
{
"Version": "2012-10-17",
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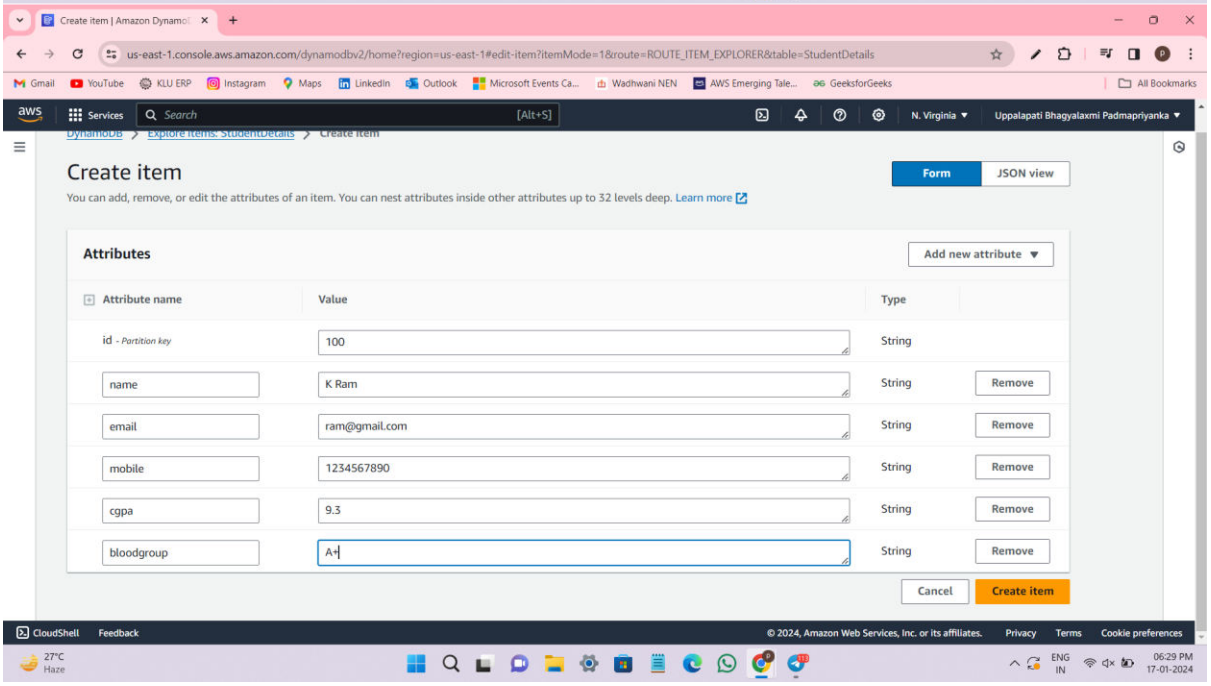
Create item | Amazon Dynamo
us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#edit-item?itemMode=1&route=ROUTE_ITEM_EXPLORER&table=StudentDetails
Gmail YouTube KLU ERP Instagram Maps LinkedIn Outlook Microsoft Events Ca... Wadhwani NEN AWS Emerging Tale... GeeksforGeeks All Bookmarks
aws Services Search [Alt+S] N. Virginia Uppalapati Bhagyalaxmi Padmapriyanka
DynamoDB > Explore items: StudentDetails > Create item
Create item
Form JSON view
You can add, remove, or edit the attributes of an item. You can nest attributes inside other attributes up to 32 levels deep. Learn more
Attributes
Add new attribute
Attribute name
Value
Type
id - Partition key
100
String
name
K Ram
String
Remove
email
ram@gmail.com
String
Remove
mobile
1234567890
String
Remove
cgpa
9.3
String
Remove
bloodgroup
A+
String
Remove
Cancel
Create item
CloudShell Feedback
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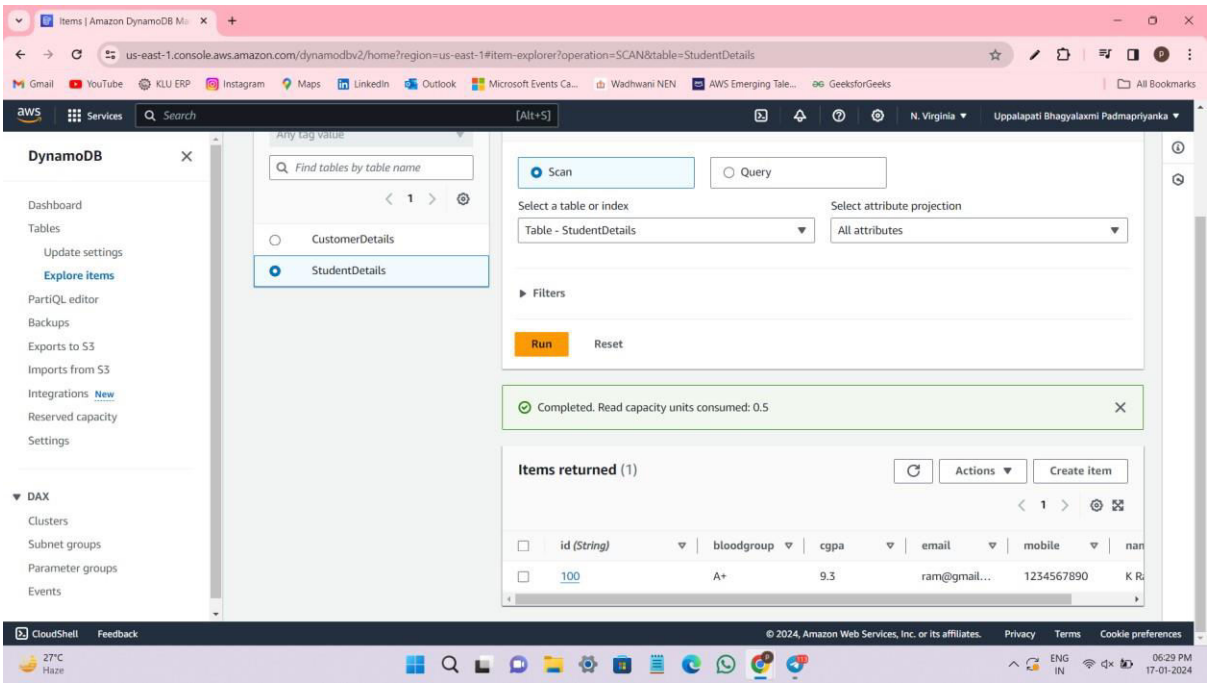
Items | Amazon DynamoDB
us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#item-explorer?operation=SCAN&table=StudentDetails
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
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DynamoDB
Dashboard
Tables
Update settings
Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations New
Reserved capacity
Settings
DAX
Clusters
Subnet groups
Parameter groups
Events
Find tables by table name
CustomerDetails
StudentDetails
Scan
Query
Select a table or index
Table - StudentDetails
Select attribute projection
All attributes
Filters
Run
Reset
Completed. Read capacity units consumed: 0.5
Items returned (1)
Actions
Create item
id (String)
bloodgroup
cgpa
email
mobile
100
A+
9.3
ram@gmail...
1234567890
CloudShell
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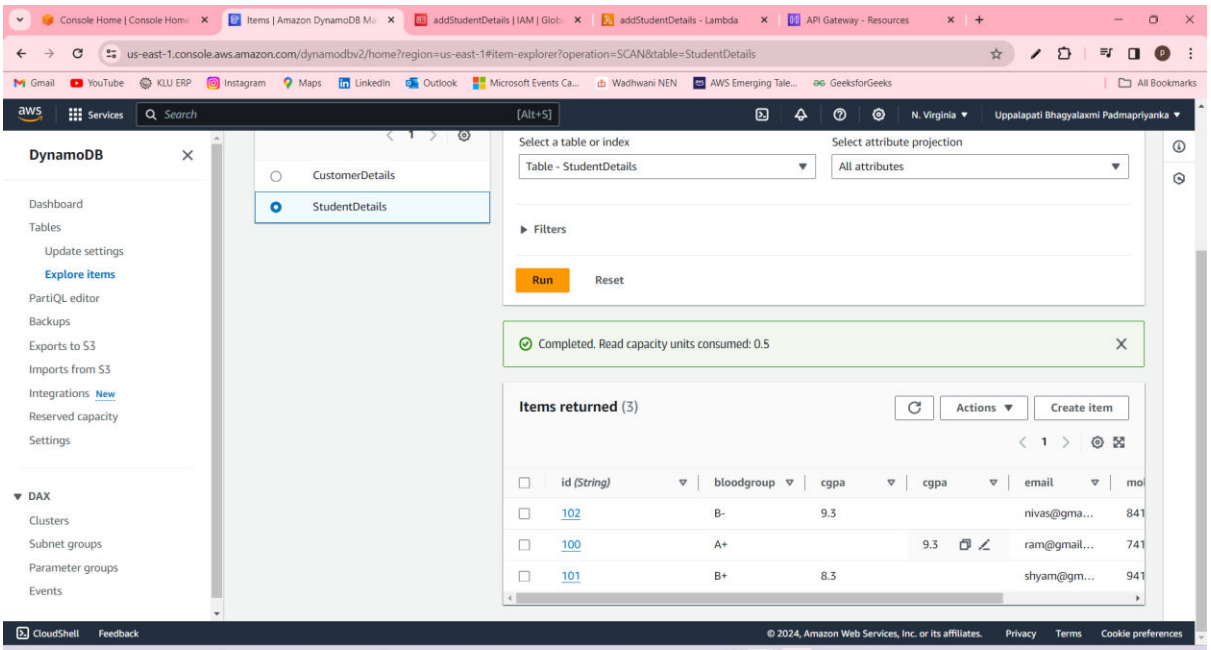
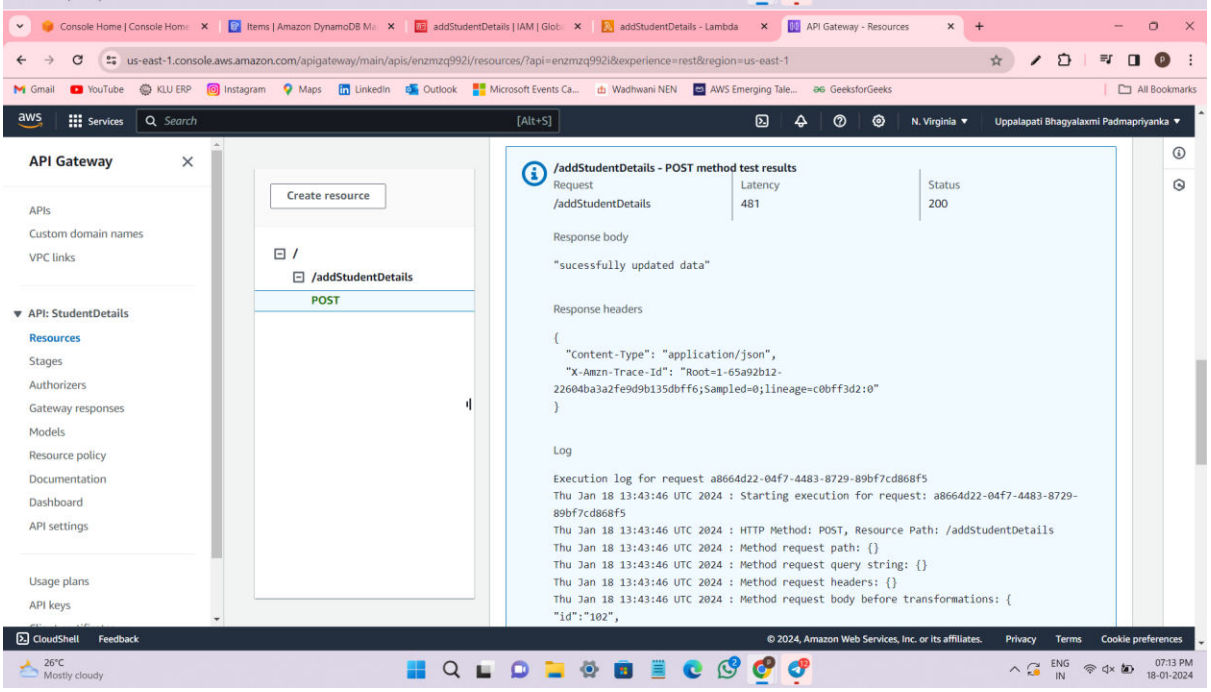
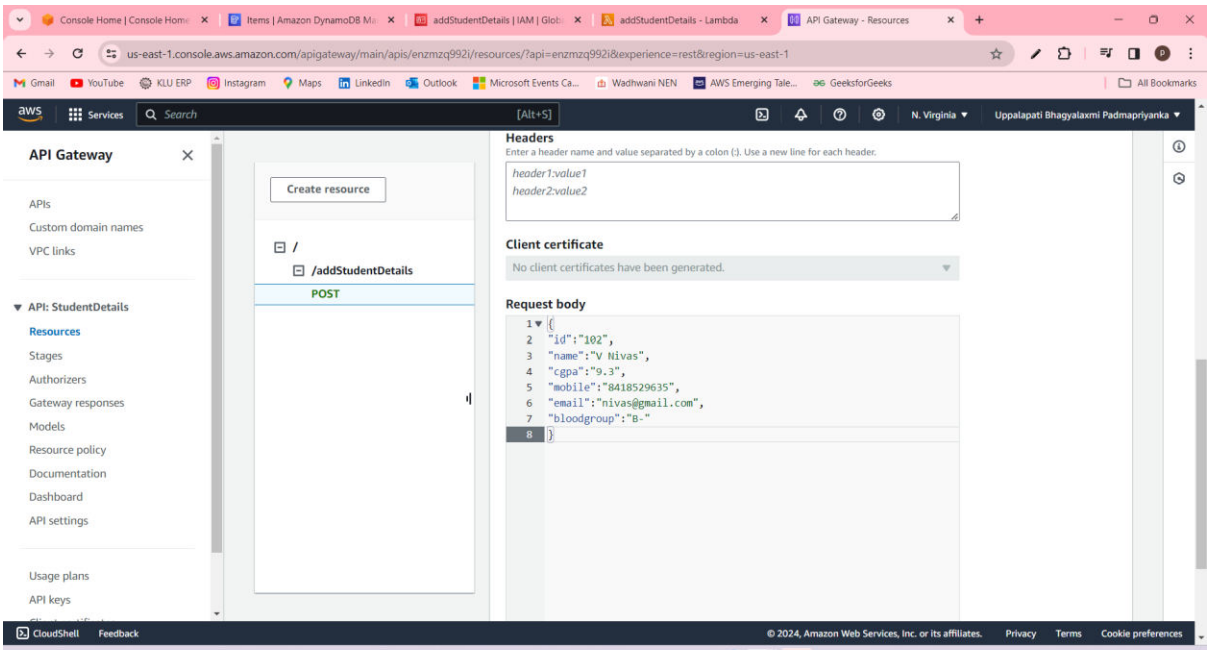
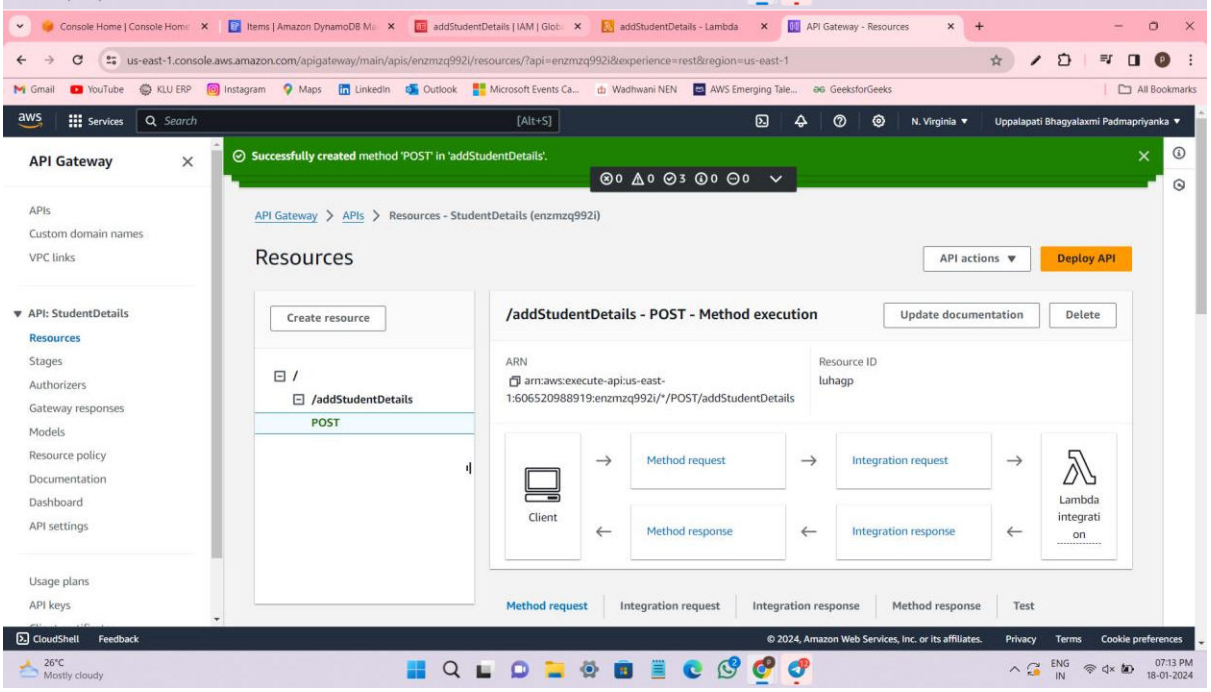
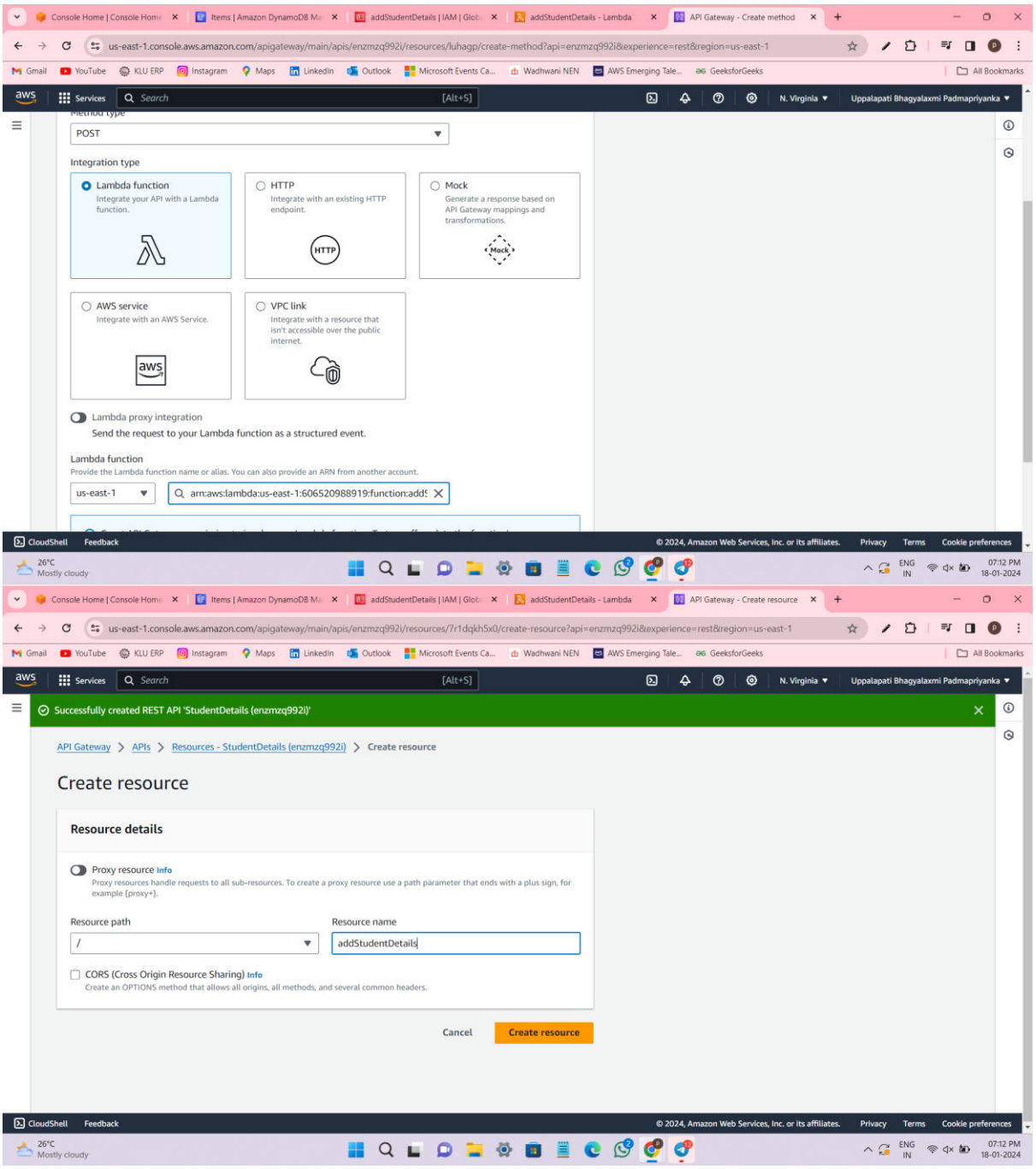

DynamoDB
Dashboard
Tables
Update settings
Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations New
Reserved capacity
Settings
DAX
Clusters
Subnet groups
Parameter groups
Events
CustomerDetails
StudentDetails
Select a table or index
Table - StudentDetails
Select attribute projection
All attributes
Filters
Run
Reset
Completed. Read capacity units consumed: 0.5
Items returned (3)
Actions
Create item
id (String)
bloodgroup
cgpa
cgpa
email
102
B-
9.3
nivas@gma...
100
A+
9.3
ram@gmail...
101
B+
8.3
shyam@gm...


API Gateway
APIs
Custom domain names
VPC links
API: StudentDetails
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Create resource
/
/addStudentDetails
POST
/addStudentDetails - POST method test results
Request
/addStudentDetails
Latency
481
Status
200
Response body
"sucessfully updated data"
Response headers
{
"Content-Type": "application/json",
"X-Amzn-Trace-Id": "Root=1-65a92b12-22604ba3a2fe9d9b135dbff6;Sampled=0;lineage=c0bff3d2:0"
}
Log
Execution log for request a8664d22-04f7-4483-8729-89bf7cd868f5
Thu Jan 18 13:43:46 UTC 2024 : Starting execution for request: a8664d22-04f7-4483-8729-89bf7cd868f5
Thu Jan 18 13:43:46 UTC 2024 : HTTP Method: POST, Resource Path: /addStudentDetails
Thu Jan 18 13:43:46 UTC 2024 : Method request path: {}
Thu Jan 18 13:43:46 UTC 2024 : Method request query string: {}
Thu Jan 18 13:43:46 UTC 2024 : Method request headers: {}
Thu Jan 18 13:43:46 UTC 2024 : Method request body before transformations: {
"id":"102",


API Gateway
APIs
Custom domain names
VPC links
API: StudentDetails
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Create resource
/
/addStudentDetails
POST
Headers
Enter a header name and value separated by a colon (:). Use a new line for each header.
header1:value1
header2:value2
Client certificate
No client certificates have been generated.
Request body
{
"id":"102",
"name":"V Nivas",
"cgpa":"9.3",
"mobile":"8418529635",
"email":"nivas@gmail.com",
"bloodgroup":"B-"
}


Successfully created method 'POST' in 'addStudentDetails'.
API Gateway > APIs > Resources - StudentDetails (enzmzq992i)
Resources
API actions
Deploy API
/addStudentDetails - POST - Method execution
Update documentation
Delete
ARN
arn:aws:execute-api:us-east-1:606520988919:enzmzq992i/*/POST/addStudentDetails
Resource ID
luhagp
Client
Method request
Integration request
Lambda integration
Method response
Integration response
Method request
Integration request
Integration response
Method response
Test


Console Home | Console Home
Items | Amazon DynamoDB Ma
addStudentDetails | IAM | Glob
addStudentDetails - Lambda
API Gateway - Create method
us-east-1.console.aws.amazon.com/apigateway/main/apis/enzmzq992i/resources/luhagp/create-method?api=enzmzq992i&experience=rest&region=us-east-1
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
Search
[Alt+S]
N. Virginia
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POST
Integration type
Lambda function
Integrate your API with a Lambda function.
HTTP
Integrate with an existing HTTP endpoint.
Mock
Generate a response based on API Gateway mappings and transformations.
AWS service
Integrate with an AWS Service.
VPC link
Integrate with a resource that isn't accessible over the public internet.
Lambda proxy integration
Send the request to your Lambda function as a structured event.
Lambda function
Provide the Lambda function name or alias. You can also provide an ARN from another account.
us-east-1
arn:aws:lambda:us-east-1:606520988919:function:addS
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Console Home | Console Home
Items | Amazon DynamoDB Ma
addStudentDetails | IAM | Glob
addStudentDetails - Lambda
API Gateway - Create resource
us-east-1.console.aws.amazon.com/apigateway/main/apis/enzmzq992i/resources/7r1dqkh5x0/create-resource?api=enzmzq992i&experience=rest&region=us-east-1
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
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Successfully created REST API 'StudentDetails (enzmzq992i)'
API Gateway
APIs
Resources - StudentDetails (enzmzq992i)
Create resource
Create resource
Resource details
Proxy resource Info
Proxy resources handle requests to all sub-resources. To create a proxy resource use a path parameter that ends with a plus sign, for example {proxy+}.
Resource path
/
Resource name
addStudentDetails
CORS (Cross Origin Resource Sharing) Info
Create an OPTIONS method that allows all origins, all methods, and several common headers.
Cancel
Create resource
CloudShell
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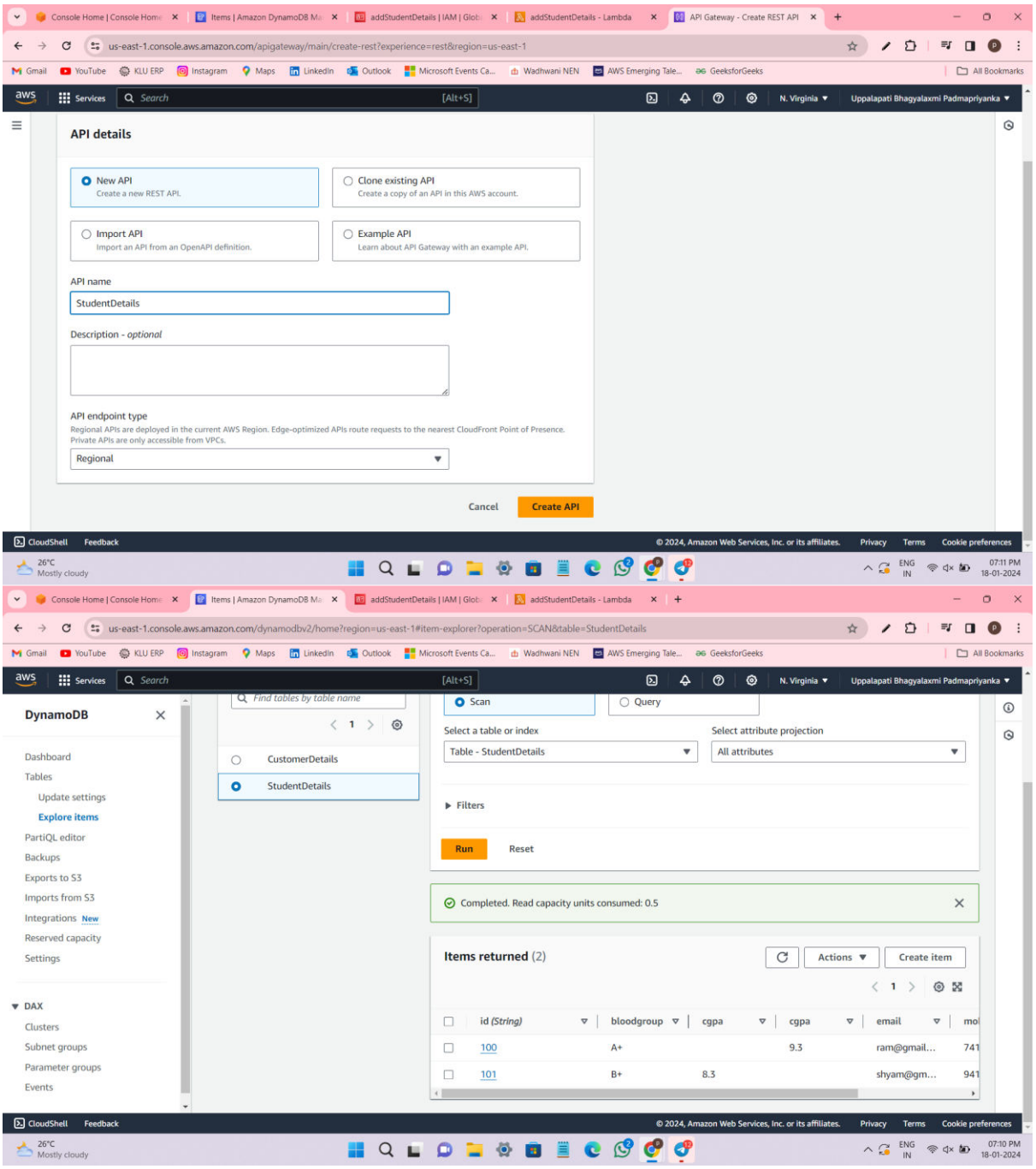
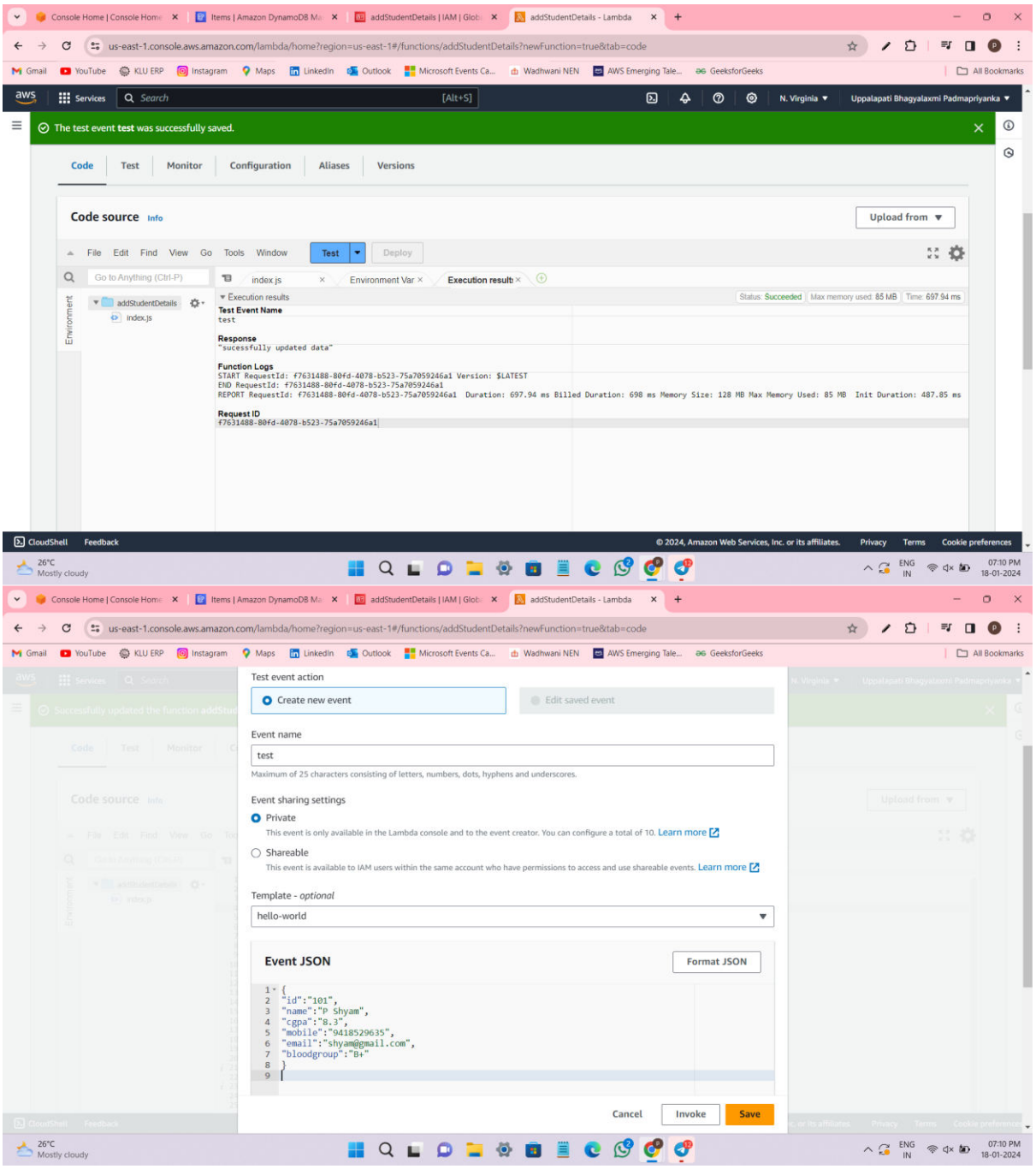

API details
New API
Create a new REST API.
Clone existing API
Create a copy of an API in this AWS account.
Import API
Import an API from an OpenAPI definition.
Example API
Learn about API Gateway with an example API.
API name
StudentDetails
Description - optional
API endpoint type
Regional APIs are deployed in the current AWS Region. Edge-optimized APIs route requests to the nearest CloudFront Point of Presence. Private APIs are only accessible from VPCs.
Regional
Cancel
Create API

DynamoDB
Dashboard
Tables
Update settings
Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations New
Reserved capacity
Settings
DAX
Clusters
Subnet groups
Parameter groups
Events
CustomerDetails
StudentDetails
Scan
Query
Select a table or index
Table - StudentDetails
Select attribute projection
All attributes
Filters
Run
Reset
Completed. Read capacity units consumed: 0.5
Items returned (2)
Actions
Create item
id (String)
bloodgroup
cgpa
cgpa
email
100
A+
9.3
ram@gmail...
101
B+
8.3
shyam@gm...


Console Home | Console Home
Items | Amazon DynamoDB
addStudentDetails | IAM | Glob
addStudentDetails - Lambda
us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/addStudentDetails?newFunction=true&tab=code
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
Search
[Alt+S]
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The test event test was successfully saved.
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy
Go to Anything (Ctrl-P)
index.js
Environment Var
Execution result
Environment
addStudentDetails
index.js
Execution results
Status: Succeeded
Max memory used: 85 MB
Time: 697.94 ms
Test Event Name
test
Response
"sucessfully updated data"
Function Logs
START RequestId: f7631488-80fd-4078-b523-75a7059246a1 Version: $LATEST
END RequestId: f7631488-80fd-4078-b523-75a7059246a1
REPORT RequestId: f7631488-80fd-4078-b523-75a7059246a1 Duration: 697.94 ms Billed Duration: 698 ms Memory Size: 128 MB Max Memory Used: 85 MB Init Duration: 487.85 ms
Request ID
f7631488-80fd-4078-b523-75a7059246a1
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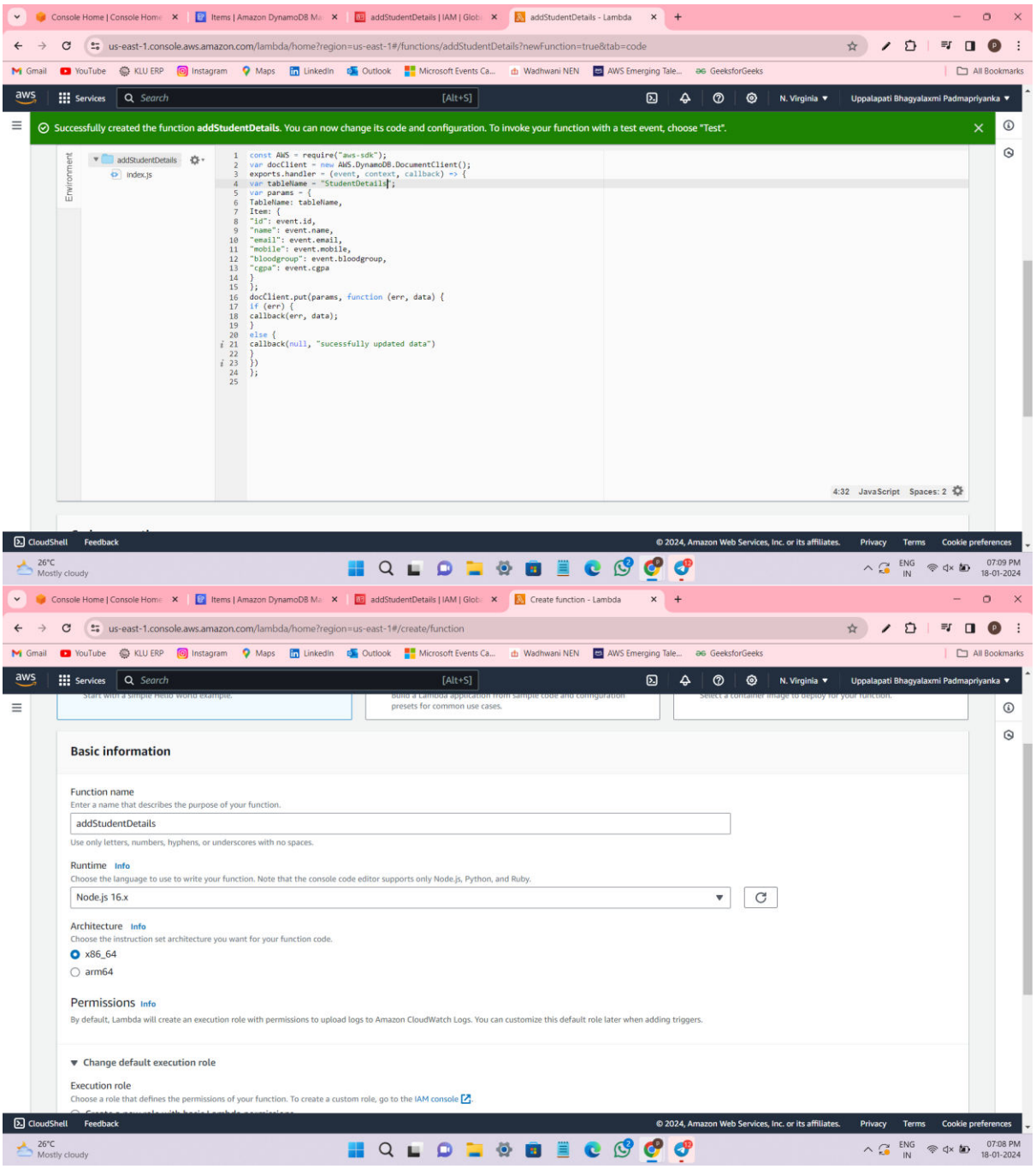
Test event action
Create new event
Edit saved event
Event name
test
Maximum of 25 characters consisting of letters, numbers, dots, hyphens and underscores.
Event sharing settings
Private
This event is only available in the Lambda console and to the event creator. You can configure a total of 10. Learn more
Shareable
This event is available to IAM users within the same account who have permissions to access and use shareable events. Learn more
Template - optional
hello-world
Event JSON
Format JSON
{
"id":"101",
"name":"P Shyam",
"cgpa":"8.3",
"mobile":"9418529635",
"email":"shyam@gmail.com",
"bloodgroup":"B+"
}
Cancel
Invoke
Save


Console Home | Console Home
Items | Amazon DynamoDB Ma
addStudentDetails | IAM | Glob
addStudentDetails - Lambda
us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/addStudentDetails?newFunction=true&tab=code
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
Search
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Successfully created the function addStudentDetails. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
Environment
addStudentDetails
index.js
const AWS = require("aws-sdk");
var docClient = new AWS.DynamoDB.DocumentClient();
exports.handler = (event, context, callback) => {
var tableName = "StudentDetails";
var params = {
TableName: tableName,
Item: {
"id": event.id,
"name": event.name,
"email": event.email,
"mobile": event.mobile,
"bloodgroup": event.bloodgroup,
"cgpa": event.cgpa
}
};
docClient.put(params, function (err, data) {
if (err) {
callback(err, data);
}
else {
callback(null, "sucessfully updated data")
}
})
};
4:32
JavaScript
Spaces: 2
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Console Home | Console Home
Items | Amazon DynamoDB Ma
addStudentDetails | IAM | Glob
Create function - Lambda
us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/create/function
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
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presets for common use cases.
Basic information
Function name
Enter a name that describes the purpose of your function.
addStudentDetails
Use only letters, numbers, hyphens, or underscores with no spaces.
Runtime Info
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Node.js 16.x
Architecture Info
Choose the instruction set architecture you want for your function code.
x86_64
arm64
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Change default execution role
Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the IAM console
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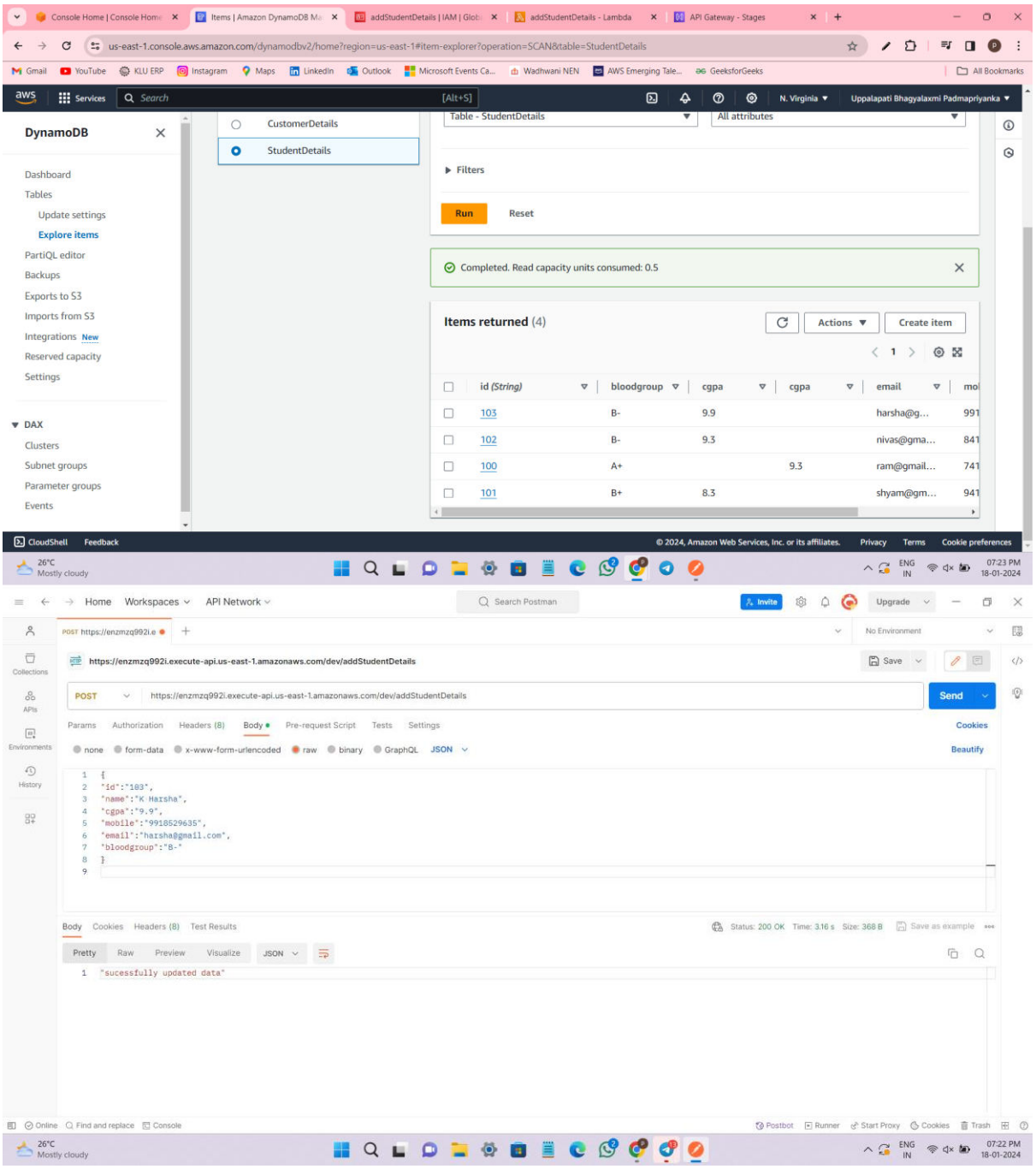
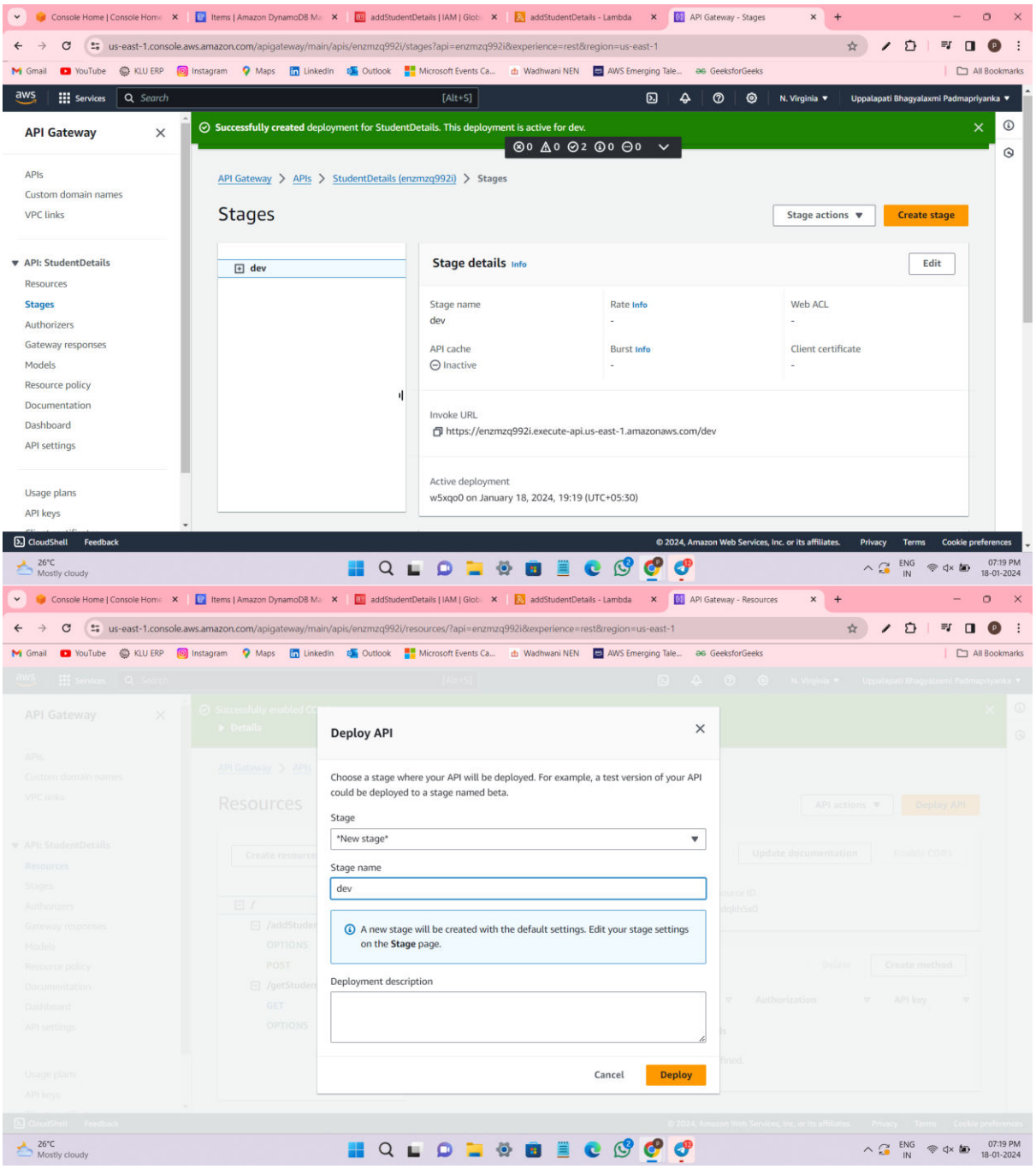

DynamoDB
Dashboard
Tables
Update settings
Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations New
Reserved capacity
Settings
DAX
Clusters
Subnet groups
Parameter groups
Events
CustomerDetails
StudentDetails
Table - StudentDetails
All attributes
Filters
Run
Reset
Completed. Read capacity units consumed: 0.5
Items returned (4)
Actions
Create item
id (String)
bloodgroup
cgpa
cgpa
email
103 B- 9.9 harsha@g...
102 B- 9.3 nivas@gma...
100 A+ 9.3 ram@gmail...
101 B+ 8.3 shyam@gm...

Home
Workspaces
API Network
Search Postman
Invite
Upgrade
https://enzmzq992i.execute-api.us-east-1.amazonaws.com/dev/addStudentDetails
POST
https://enzmzq992i.execute-api.us-east-1.amazonaws.com/dev/addStudentDetails
Send
Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies
Beautify
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
{
"id":"103",
"name":"K Harsha",
"cgpa":"9.9",
"mobile":"9918529635",
"email":"harsha@gmail.com",
"bloodgroup":"B-"
}
Body
Cookies
Headers (8)
Test Results
Status: 200 OK
Time: 3.16 s
Size: 368 B
Pretty
Raw
Preview
Visualize
JSON
"sucessfully updated data"


Successfully created deployment for StudentDetails. This deployment is active for dev.
API Gateway
APIs
Custom domain names
VPC links
API: StudentDetails
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
API Gateway > APIs > StudentDetails (enzmzq992i) > Stages
Stages
Stage actions
Create stage
dev
Stage details Info
Edit
Stage name
dev
Rate Info
-
Web ACL
-
API cache
Inactive
Burst Info
-
Client certificate
-
Invoke URL
https://enzmzq992i.execute-api.us-east-1.amazonaws.com/dev
Active deployment
w5xqo0 on January 18, 2024, 19:19 (UTC+05:30)
CloudShell
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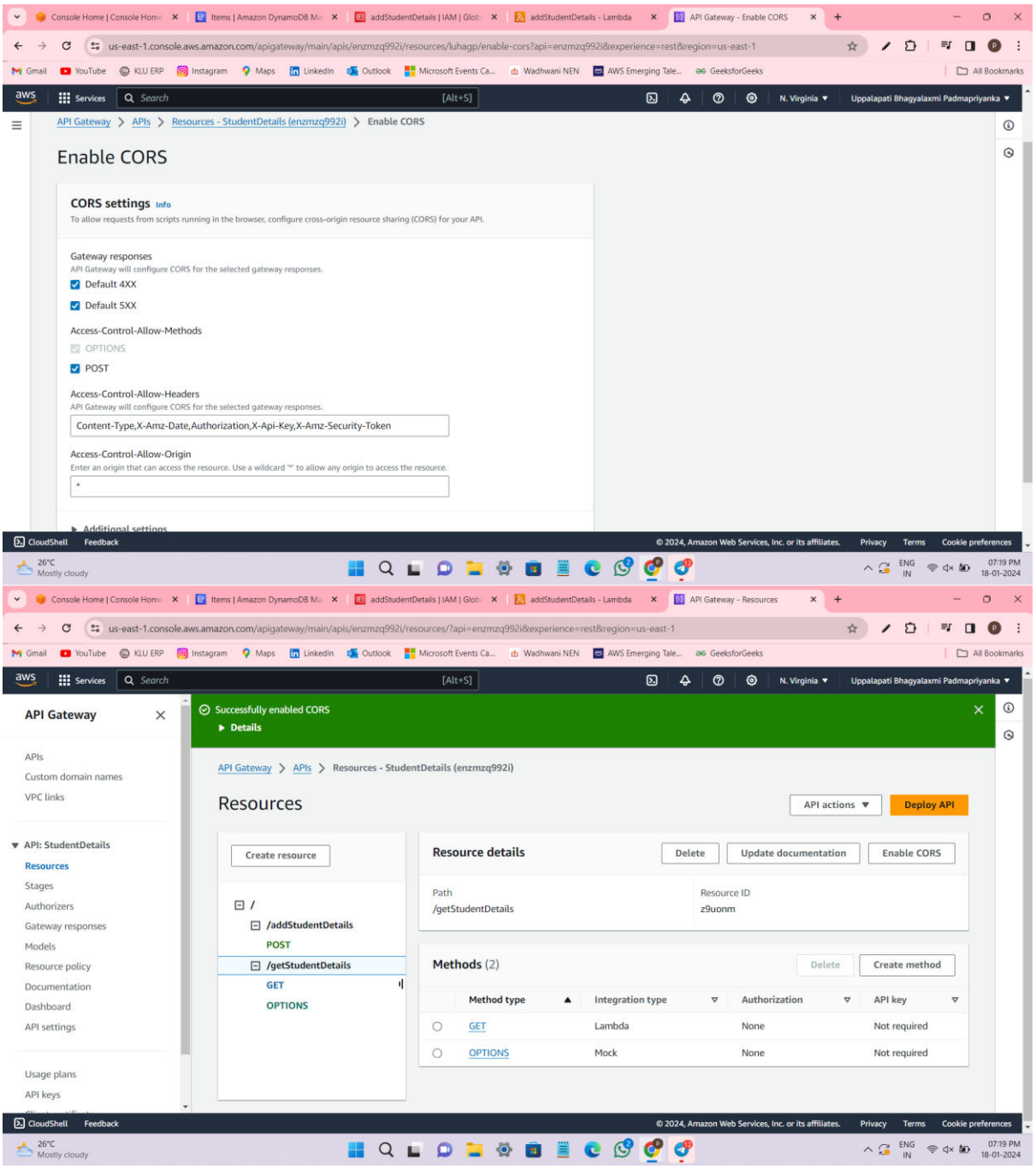
Deploy API
Choose a stage where your API will be deployed. For example, a test version of your API could be deployed to a stage named beta.
Stage
New stage
Stage name
dev
A new stage will be created with the default settings. Edit your stage settings on the Stage page.
Deployment description
Cancel
Deploy


Console Home | Console Home
Items | Amazon DynamoDB Ma
addStudentDetails | IAM | Glob
addStudentDetails - Lambda
API Gateway - Enable CORS
us-east-1.console.aws.amazon.com/apigateway/main/apis/enzmzq992i/resources/luhagp/enable-cors?api=enzmzq992i&experience=rest&region=us-east-1
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
Wadhwani NEN
AWS Emerging Tale...
GeeksforGeeks
All Bookmarks
aws
Services
Search
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N. Virginia
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API Gateway > APIs > Resources - StudentDetails (enzmzq992i) > Enable CORS
Enable CORS
CORS settings Info
To allow requests from scripts running in the browser, configure cross-origin resource sharing (CORS) for your API.
Gateway responses
API Gateway will configure CORS for the selected gateway responses.
Default 4XX
Default 5XX
Access-Control-Allow-Methods
OPTIONS
POST
Access-Control-Allow-Headers
API Gateway will configure CORS for the selected gateway responses.
Content-Type,X-Amz-Date,Authorization,X-Api-Key,X-Amz-Security-Token
Access-Control-Allow-Origin
Enter an origin that can access the resource. Use a wildcard '*' to allow any origin to access the resource.
*
Additional settings
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Console Home | Console Home
Items | Amazon DynamoDB Ma
addStudentDetails | IAM | Glob
addStudentDetails - Lambda
API Gateway - Resources
us-east-1.console.aws.amazon.com/apigateway/main/apis/enzmzq992i/resources/?api=enzmzq992i&experience=rest&region=us-east-1
Gmail
YouTube
KLU ERP
Instagram
Maps
LinkedIn
Outlook
Microsoft Events Ca...
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AWS Emerging Tale...
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API Gateway
APIs
Custom domain names
VPC links
API: StudentDetails
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Successfully enabled CORS
Details
API Gateway > APIs > Resources - StudentDetails (enzmzq992i)
Resources
API actions
Deploy API
Create resource
/
/addStudentDetails
POST
/getStudentDetails
GET
OPTIONS
Resource details
Delete
Update documentation
Enable CORS
Path
/getStudentDetails
Resource ID
z9uonm
Methods (2)
Delete
Create method
Method type
Integration type
Authorization
API key
GET
Lambda
None
Not required
OPTIONS
Mock
None
Not required
CloudShell
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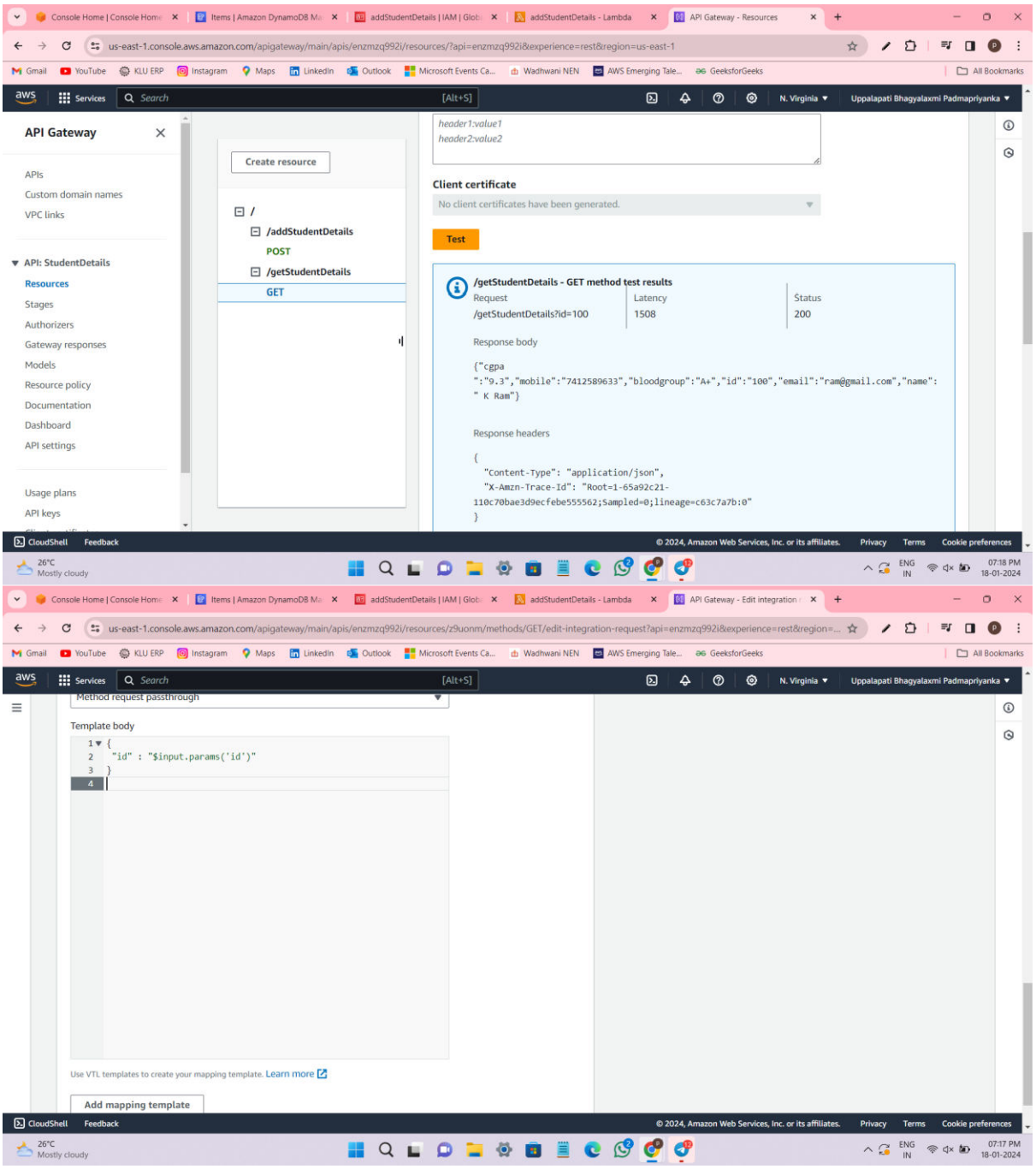
API Gateway
APIs
Custom domain names
VPC links
API: StudentDetails
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Create resource
/
/addStudentDetails
POST
/getStudentDetails
GET
header1:value1
header2:value2
Client certificate
No client certificates have been generated.
Test
/getStudentDetails - GET method test results
Request
/getStudentDetails?id=100
Latency
1508
Status
200
Response body
{"cgpa
":"9.3","mobile":"7412589633","bloodgroup":"A+","id":"100","email":"ram@gmail.com","name":
" K Ram"}
Response headers
{
"Content-Type": "application/json",
"X-Amzn-Trace-Id": "Root=1-65a92c21-
110c70bae3d9ecfebe555562;Sampled=0;lineage=c63c7a7b:0"
}
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Method request passthrough
Template body
{
"id" : "$input.params('id')"
}
Use VTL templates to create your mapping template. Learn more
Add mapping template
CloudShell
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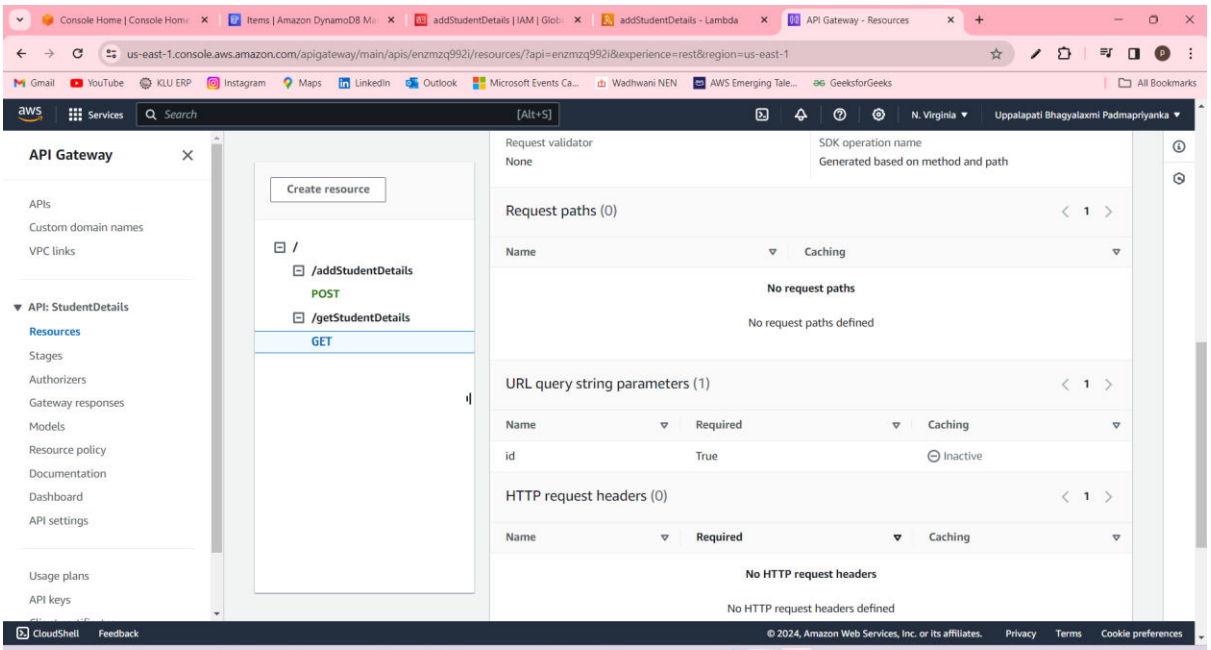
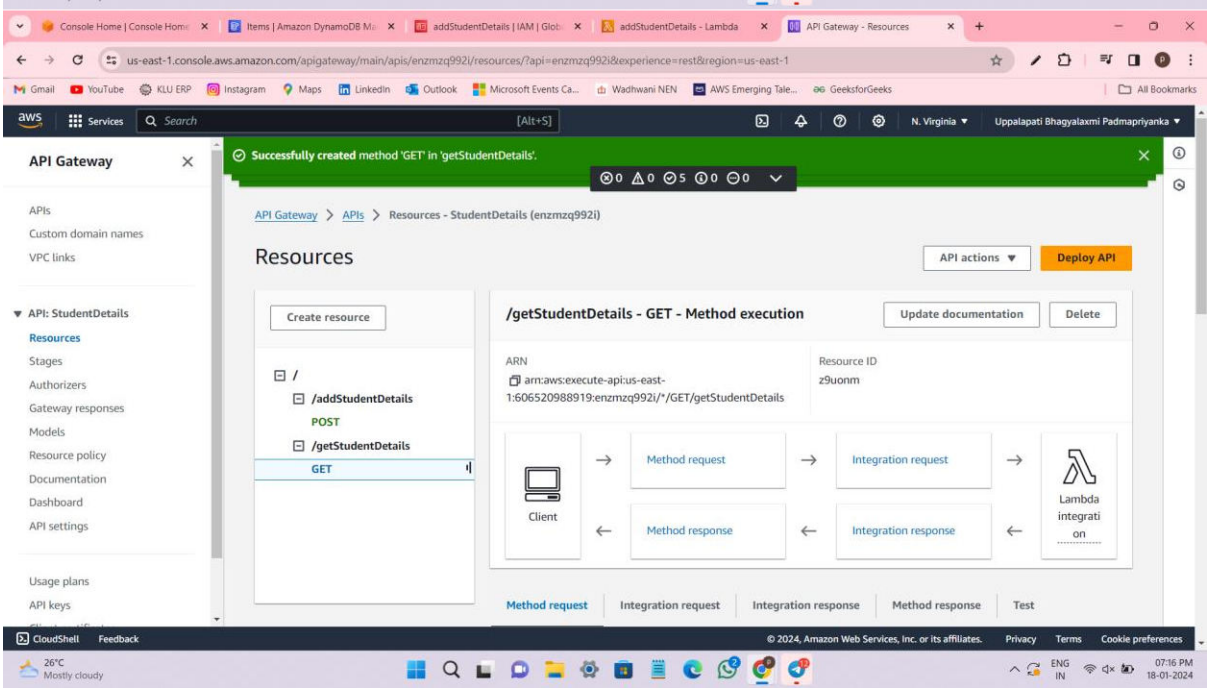
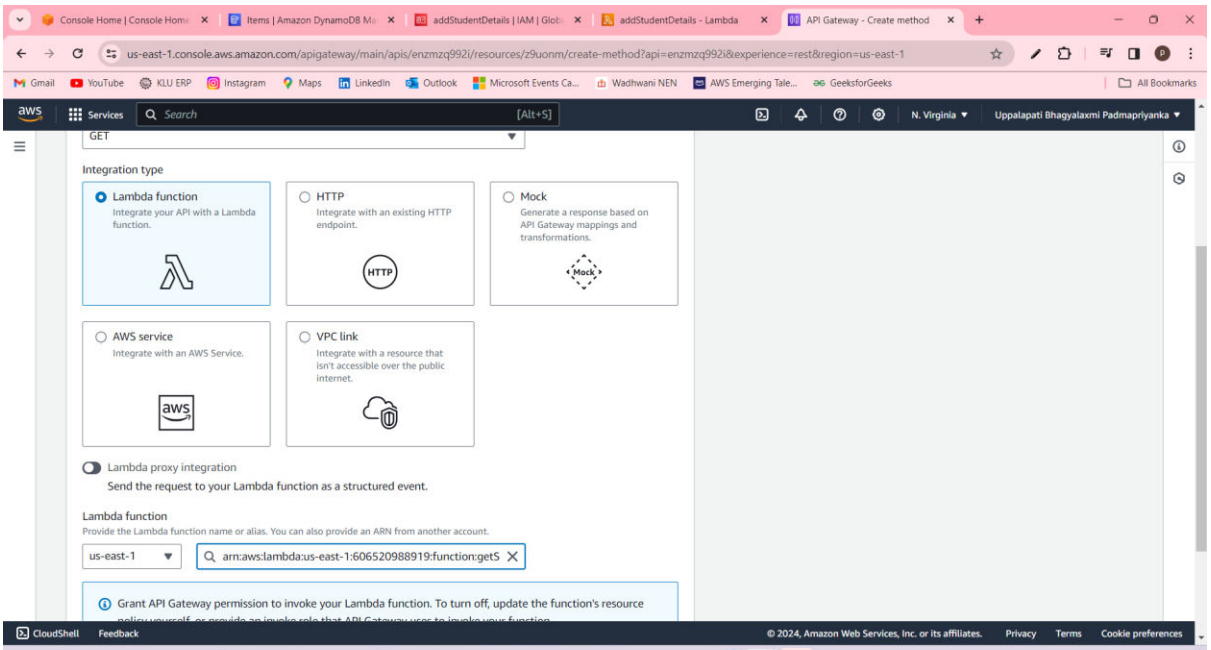
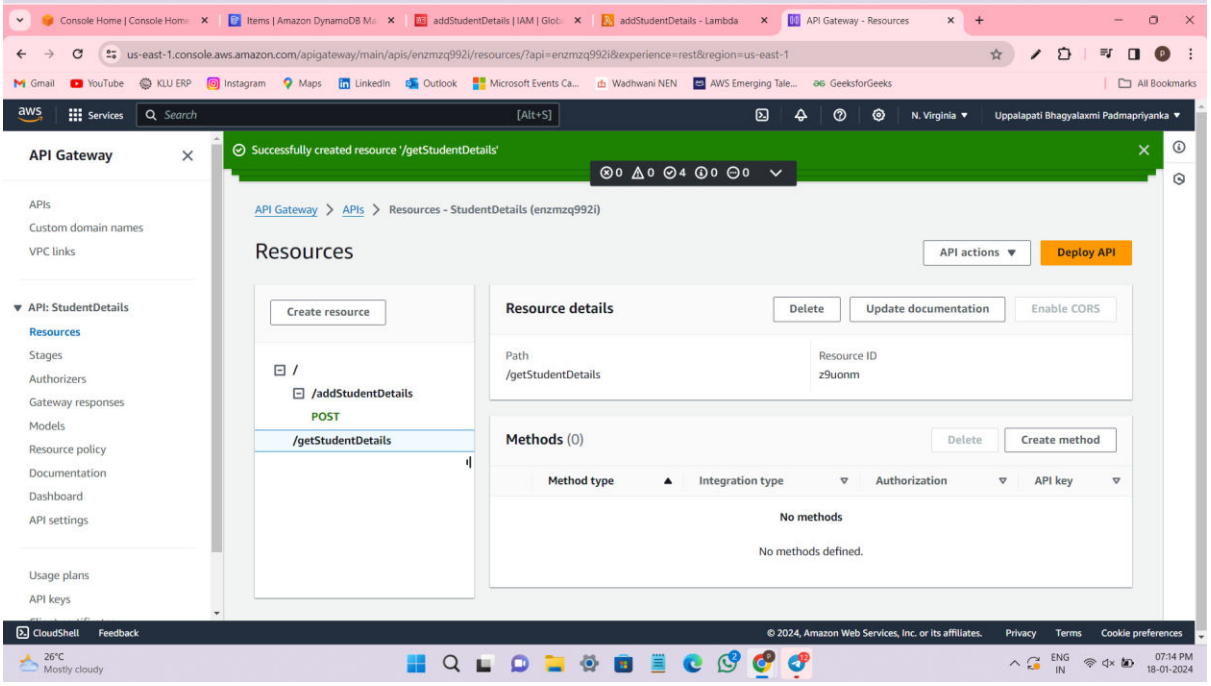
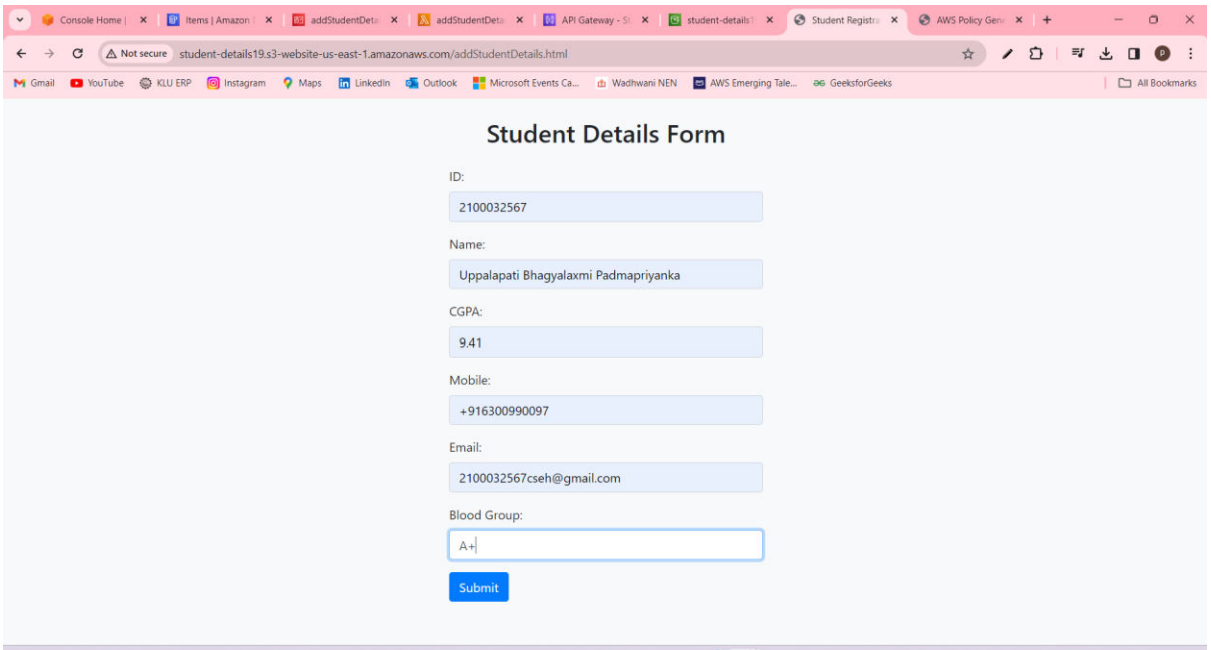
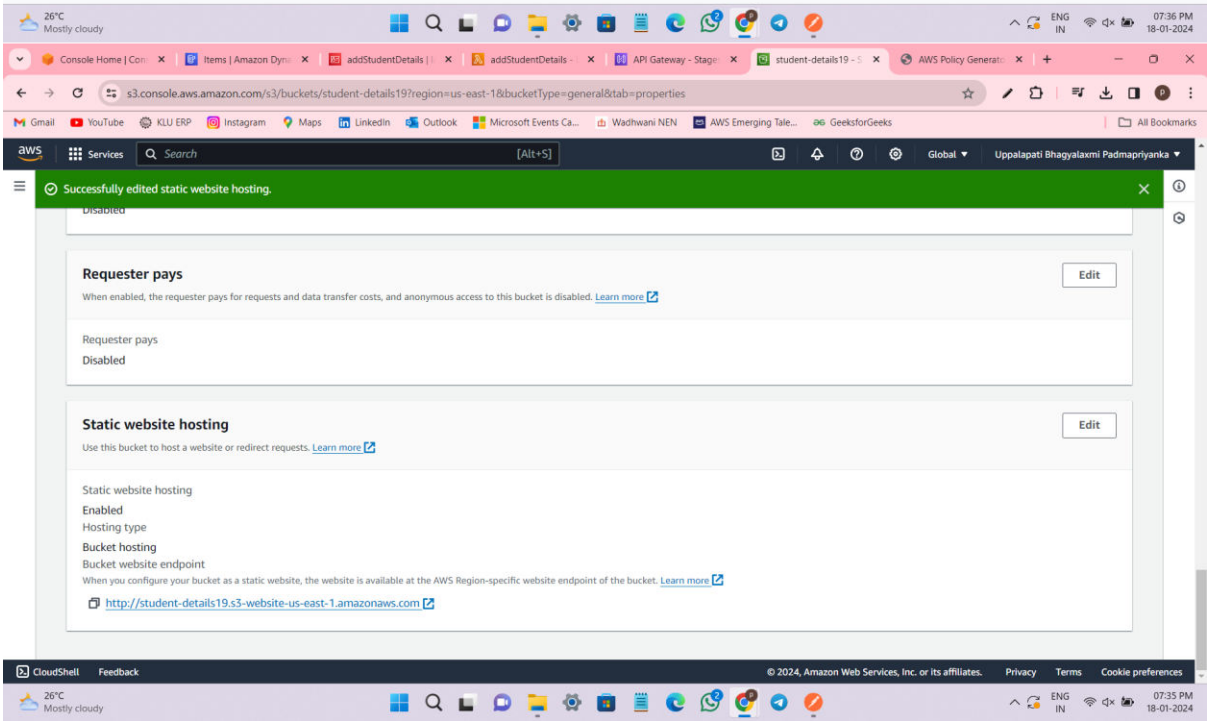

API Gateway
APIs
Custom domain names
VPC links
API: StudentDetails
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
Create resource
/
/addStudentDetails
POST
/getStudentDetails
GET
Request validator
None
SDK operation name
Generated based on method and path
Request paths (0)
Name
Caching
No request paths
No request paths defined
URL query string parameters (1)
Name
Required
Caching
id
True
Inactive
HTTP request headers (0)
Name
Required
Caching
No HTTP request headers
No HTTP request headers defined

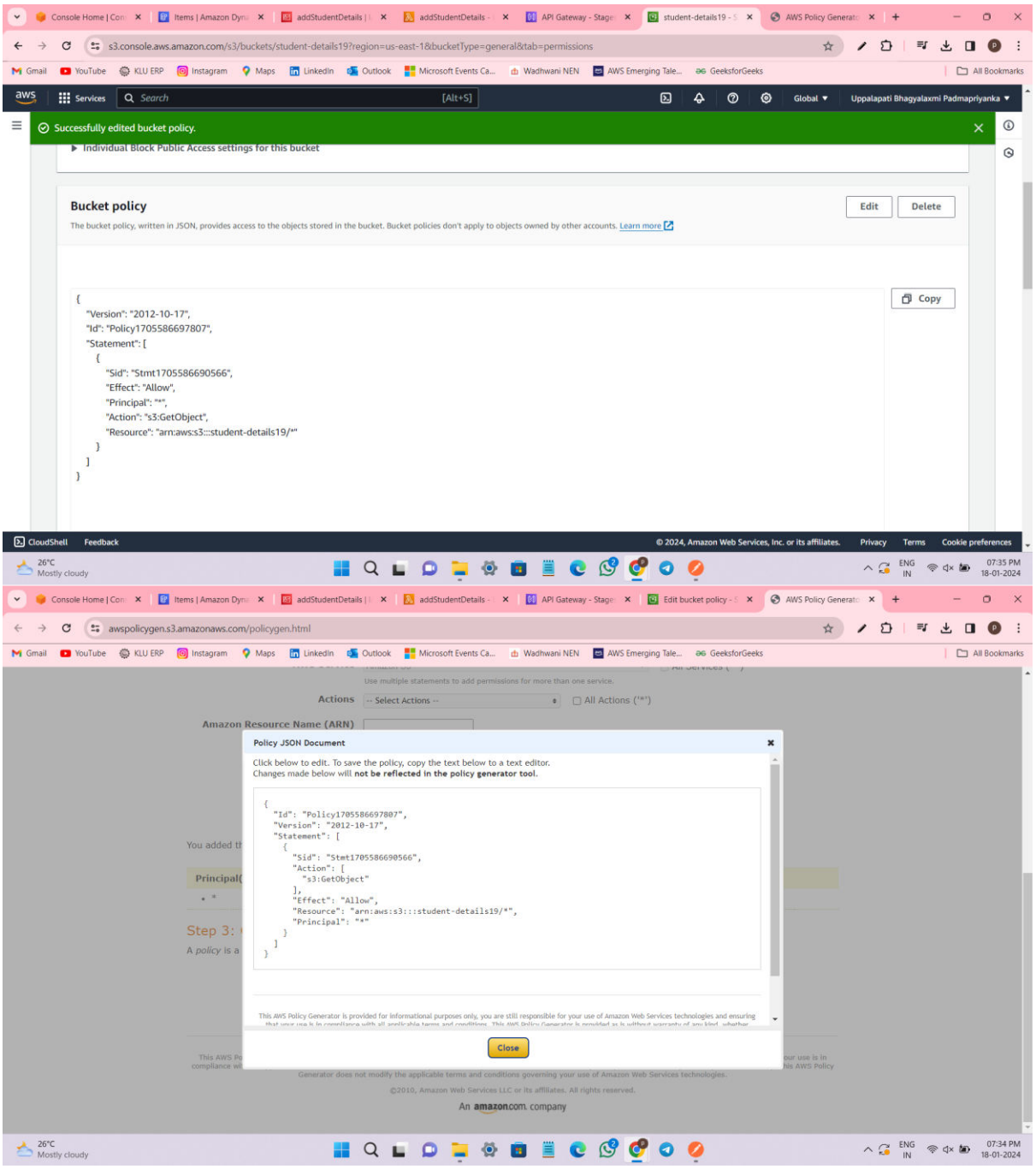

Successfully created method 'GET' in 'getStudentDetails'.
API Gateway > APIs > Resources - StudentDetails (enzmzq992i)
Resources
API actions
Deploy API
/getStudentDetails - GET - Method execution
Update documentation
Delete
ARN
arn:aws:execute-api:us-east-1:606520988919:enzmzq992i/*/GET/getStudentDetails
Resource ID
z9uonm
Client
Method request
Integration request
Lambda integration
Method response
Integration response
Method request
Integration request
Integration response
Method response
Test


GET
Integration type
Lambda function
Integrate your API with a Lambda function.
HTTP
Integrate with an existing HTTP endpoint.
Mock
Generate a response based on API Gateway mappings and transformations.
AWS service
Integrate with an AWS Service.
VPC link
Integrate with a resource that isn't accessible over the public internet.
Lambda proxy integration
Send the request to your Lambda function as a structured event.
Lambda function
Provide the Lambda function name or alias. You can also provide an ARN from another account.
us-east-1
arn:aws:lambda:us-east-1:606520988919:function:getS
Grant API Gateway permission to invoke your Lambda function. To turn off, update the function's resource

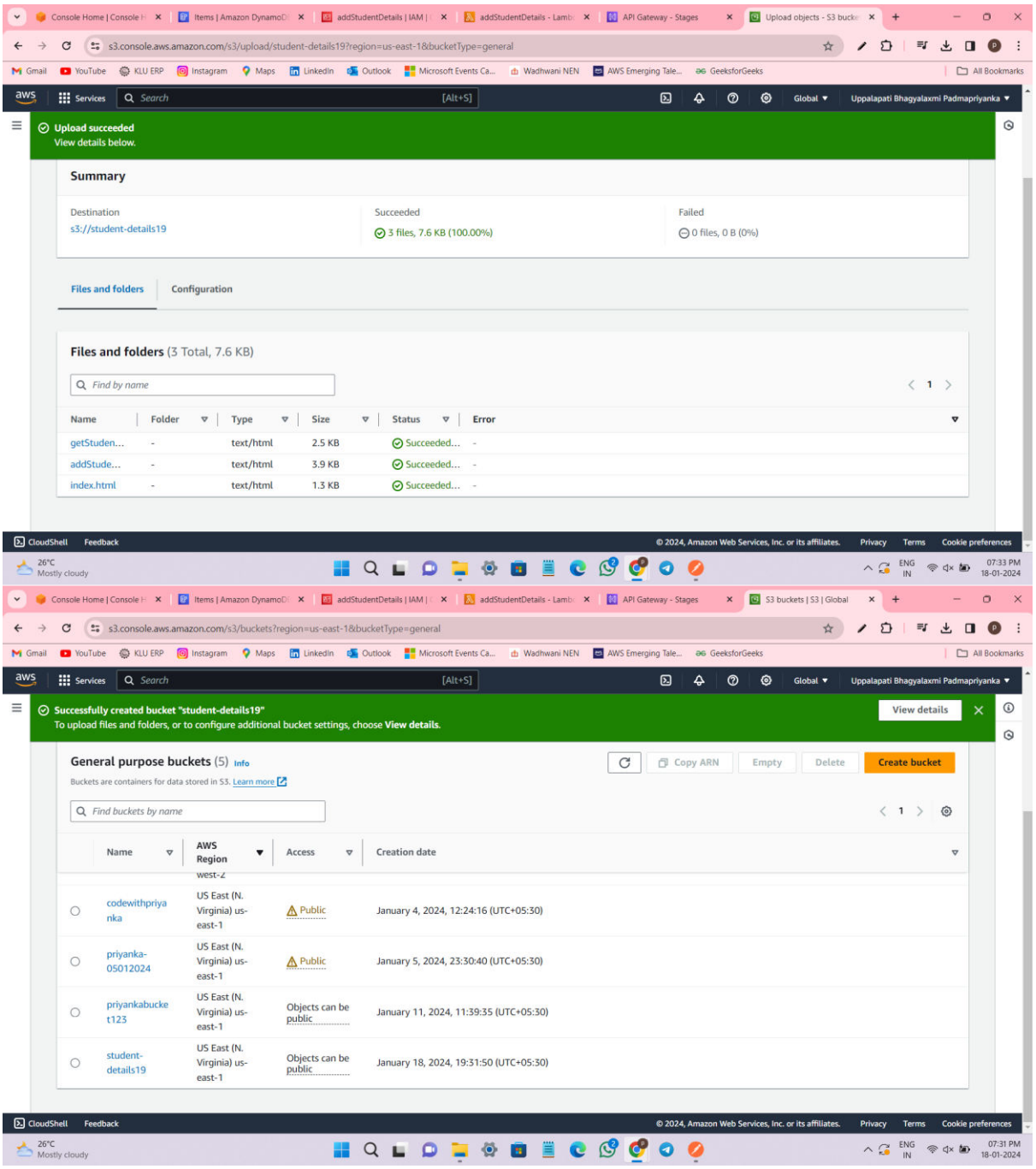

Successfully created resource '/getStudentDetails'
API Gateway
APIs
Custom domain names
VPC links
API: StudentDetails
Resources
Stages
Authorizers
Gateway responses
Models
Resource policy
Documentation
Dashboard
API settings
Usage plans
API keys
API Gateway > APIs > Resources - StudentDetails (enzmzq992i)
Resources
API actions
Deploy API
Create resource
/
/addStudentDetails
POST
/getStudentDetails
Resource details
Delete
Update documentation
Enable CORS
Path
/getStudentDetails
Resource ID
z9uonm
Methods (0)
Delete
Create method
Method type
Integration type
Authorization
API key
No methods
No methods defined.


Student Details Form
ID:
2100032567
Name:
Uppalapati Bhagyalaxmi Padmapriyanka
CGPA:
9.41
Mobile:
+916300990097
Email:
2100032567cseh@gmail.com
Blood Group:
A+
Submit

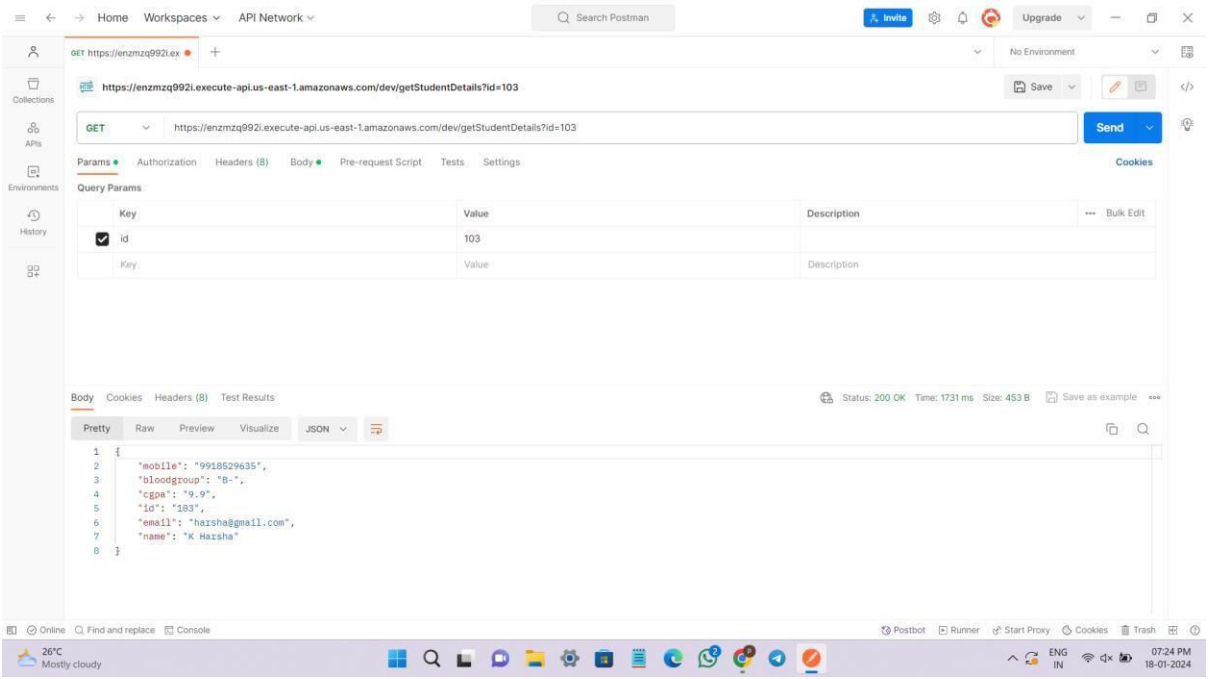

Successfully edited static website hosting.
Requester pays
When enabled, the requester pays for requests and data transfer costs, and anonymous access to this bucket is disabled. Learn more
Edit
Requester pays
Disabled
Static website hosting
Use this bucket to host a website or redirect requests. Learn more
Edit
Static website hosting
Enabled
Hosting type
Bucket hosting
Bucket website endpoint
When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. Learn more
http://student-details19.s3-website-us-east-1.amazonaws.com


Successfully edited bucket policy.
Individual Block Public Access settings for this bucket
Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. Learn more
Edit
Delete
Copy
{
"Version": "2012-10-17",
"Id": "Policy1705586697807",
"Statement": [
{
"Sid": "Stmt1705586690566",
"Effect": "Allow",
"Principal": "*",
"Action": "s3:GetObject",
"Resource": "arn:aws:s3:::student-details19/*"
}
]
}

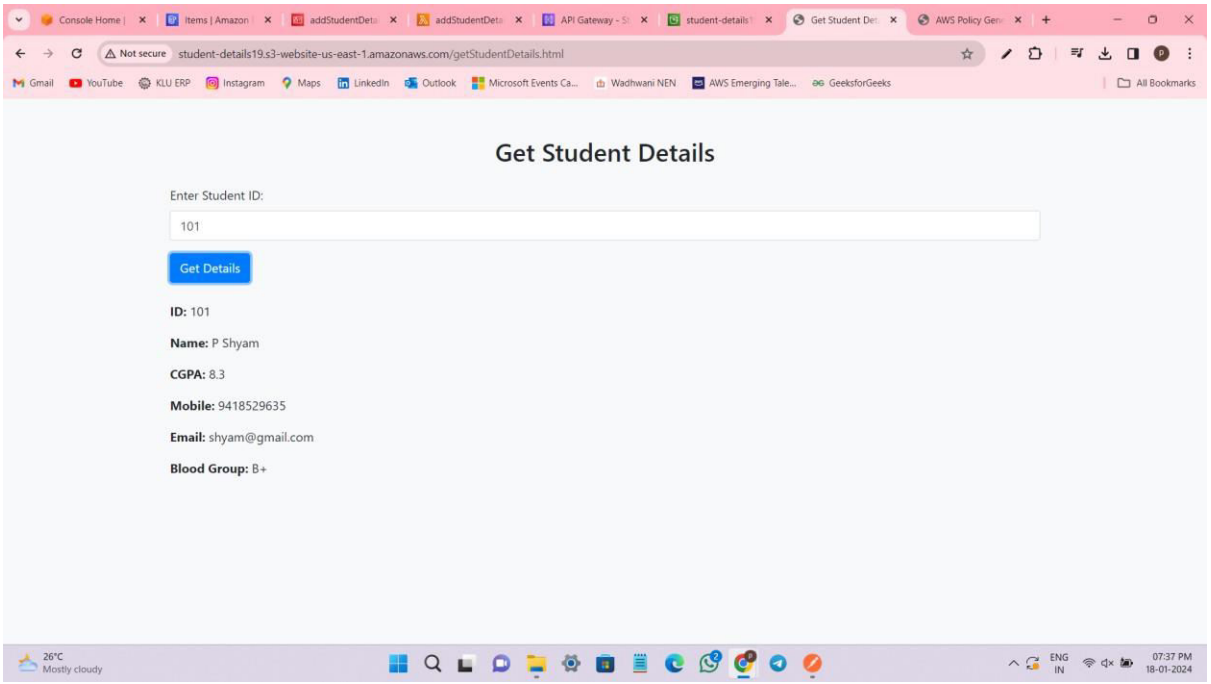
Policy JSON Document
Click below to edit. To save the policy, copy the text below to a text editor.
Changes made below will not be reflected in the policy generator tool.
{
"Id": "Policy1705586697807",
"Version": "2012-10-17",
"Statement": [
{
"Sid": "Stmt1705586690566",
"Action": [
"s3:GetObject"
],
"Effect": "Allow",
"Resource": "arn:aws:s3:::student-details19/*",
"Principal": "*"
}
]
}
Close

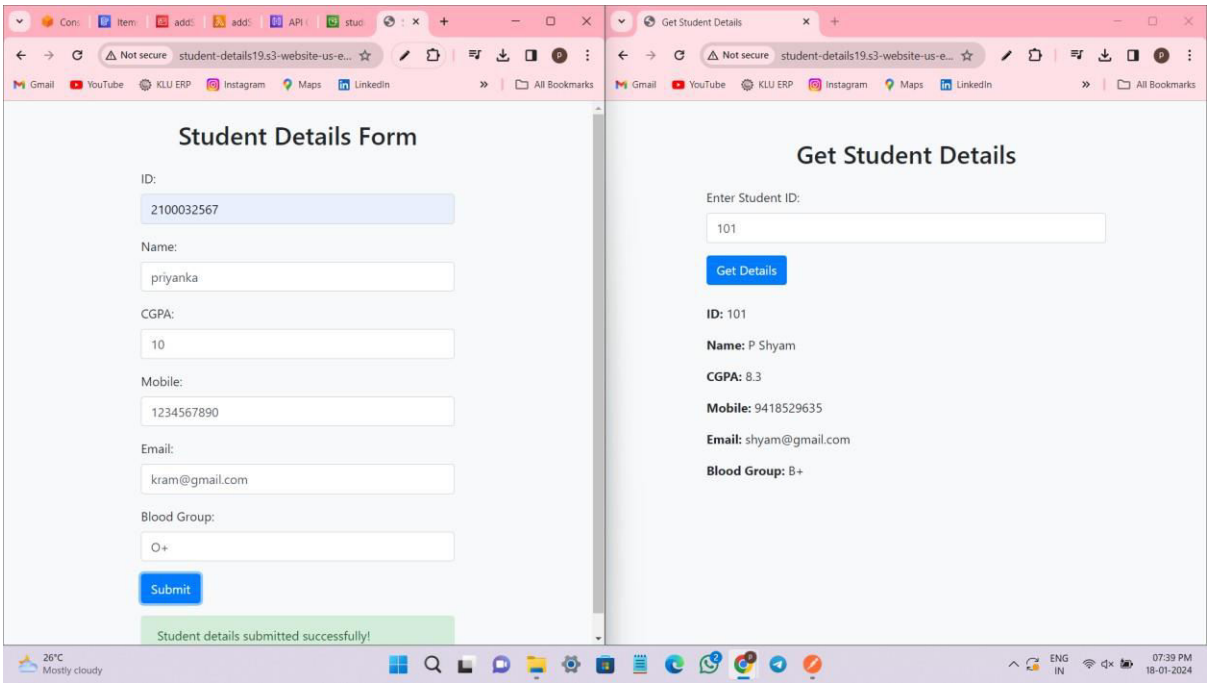

Upload succeeded
View details below.
Summary
Destination
s3://student-details19
Succeeded
3 files, 7.6 KB (100.00%)
Failed
0 files, 0 B (0%)
Files and folders
Configuration
Files and folders (3 Total, 7.6 KB)
Find by name
Name
Folder
Type
Size
Status
Error
getStuden...
text/html
2.5 KB
Succeeded...
addStude...
text/html
3.9 KB
Succeeded...
index.html
text/html
1.3 KB
Succeeded...

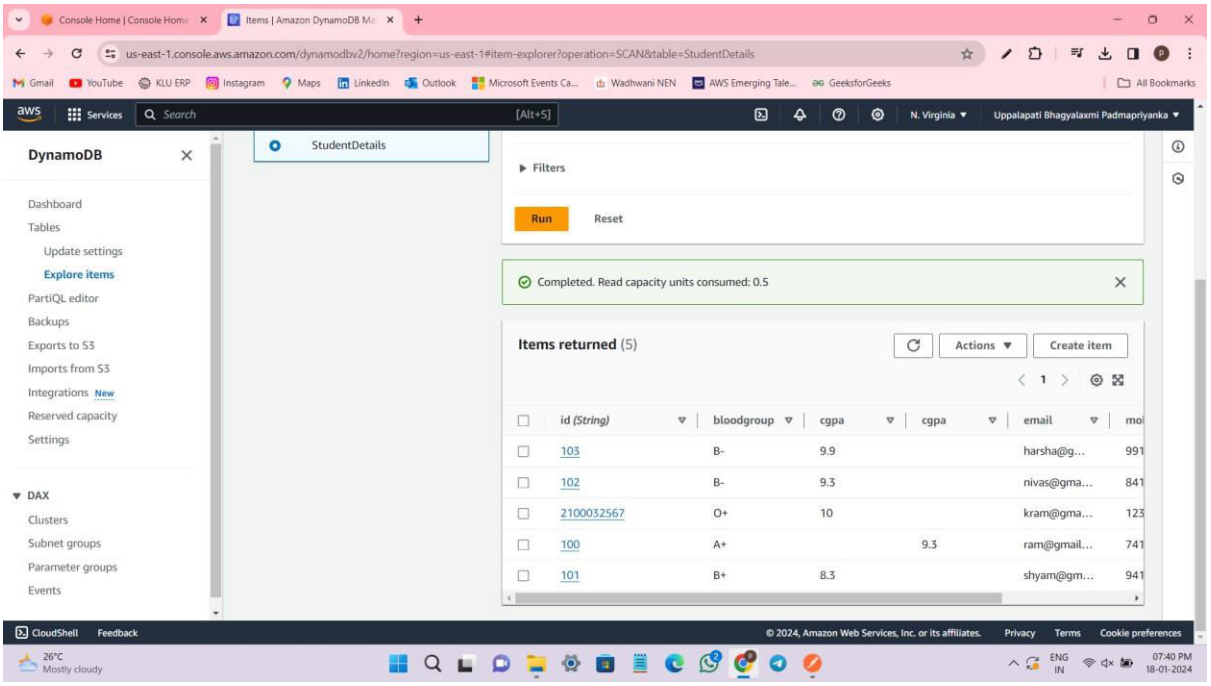
Successfully created bucket "student-details19"
To upload files and folders, or to configure additional bucket settings, choose View details.
View details
General purpose buckets (5) Info
Buckets are containers for data stored in S3. Learn more
Copy ARN
Empty
Delete
Create bucket
Find buckets by name
Name
AWS Region
Access
Creation date
codewithpriyanka
US East (N. Virginia) us-east-1
Public
January 4, 2024, 12:24:16 (UTC+05:30)
priyanka-05012024
US East (N. Virginia) us-east-1
Public
January 5, 2024, 23:30:40 (UTC+05:30)
priyankabucket123
US East (N. Virginia) us-east-1
Objects can be public
January 11, 2024, 11:39:35 (UTC+05:30)
student-details19
US East (N. Virginia) us-east-1
Objects can be public
January 18, 2024, 19:31:50 (UTC+05:30)


Home
Workspaces
API Network
Search Postman
Invite
Upgrade
https://enzmzq992i.execute-api.us-east-1.amazonaws.com/dev/getStudentDetails?id=103
Save
GET
https://enzmzq992i.execute-api.us-east-1.amazonaws.com/dev/getStudentDetails?id=103
Send
Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies
Query Params
Key
Value
Description
Bulk Edit
id
103
Body
Cookies
Headers (8)
Test Results
Status: 200 OK
Time: 1731 ms
Size: 453 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"mobile": "9918529635",
"bloodgroup": "B-",
"cgpa": "9.9",
"id": "103",
"email": "harsha@gmail.com",
"name": "K Harsha"
}

OUTPUT:


Not secure
student-details19.s3-website-us-east-1.amazonaws.com/getStudentDetails.html
Get Student Details
Enter Student ID:
101
Get Details
ID: 101
Name: P Shyam
CGPA: 8.3
Mobile: 9418529635
Email: shyam@gmail.com
Blood Group: B+


Student Details Form
ID:
2100032567
Name:
priyanka
CGPA:
10
Mobile:
1234567890
Email:
kram@gmail.com
Blood Group:
O+
Submit
Student details submitted successfully!
Get Student Details
Enter Student ID:
101
Get Details
ID: 101
Name: P Shyam
CGPA: 8.3
Mobile: 9418529635
Email: shyam@gmail.com
Blood Group: B+


DynamoDB
Dashboard
Tables
Update settings
Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations New
Reserved capacity
Settings
DAX
Clusters
Subnet groups
Parameter groups
Events
StudentDetails
Filters
Run
Reset
Completed. Read capacity units consumed: 0.5
Items returned (5)
Actions
Create item
id (String)
bloodgroup
cgpa
cgpa
email
103 B- 9.9 harsha@g...
102 B- 9.3 nivas@gma...
2100032567 O+ 10 kram@gma...
100 A+ 9.3 ram@gmail...
101 B+ 8.3 shyam@gm...