

2000031668

K Lohith SEC-13

## Skill 8

### Get details by employee email

The screenshot shows two browser windows side-by-side. The top window displays the 'API Gateway - APIs' page, listing three API types: 'WebSocket API', 'REST API', and 'REST API | Private'. Each section includes a brief description, supported services (Lambda, HTTP, AWS Services), and 'Import' and 'Build' buttons. The bottom window shows the 'Create API' wizard, starting with the 'Choose the protocol' step. It allows selecting between REST and WebSocket protocols, with REST selected. Below this, the 'Create new API' step is shown, where the user can choose a name, description, and endpoint type (Regional). The 'Settings' step follows, prompting for a friendly name and description. At the bottom right of the wizard is a large blue 'Create API' button.

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AWS Management Console API Gateway - APIs getemployeeemail.docx

API Gateway

APIs Custom domain names VPC links

WebSocket API

Build

REST API

Import Build

REST API | Private

Import Build

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AWS Management Console API Gateway - Create API getemployeeemail.docx

API Gateway - Create API

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API Gateway - Create API

APIs > Create

Choose the protocol

Select whether you would like to create a REST API or a WebSocket API.

REST  WebSocket

Create new API

In Amazon API Gateway, a REST API refers to a collection of resources and methods that can be invoked through HTTPS endpoints.

New API  Import from Swagger or Open API 3  Example API

Settings

Choose a friendly name and description for your API.

API name\* GetEmployeeDetailsByEmail

Description

Endpoint Type Regional

\* Required

Create API

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API Gateway - Create API

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API Gateway - Create API

The screenshot shows two sequential steps in the AWS Management Console for creating an API resource.

**Step 1: Creating a New Child Resource**

The URL is <https://us-east-1.console.aws.amazon.com/apigateway/home?region=us-east-1#/apis/q5hjje8cdg/resources/5jbox1gqc/create>.

The "Resource Name" field is set to "getcustomerdetailsbyemail". The "Resource Path" field is set to "/getcustomerdetailsbyemail".

**Step 2: Setting up a GET Method**

The URL is <https://us-east-1.console.aws.amazon.com/apigateway/home?region=us-east-1#/apis/q5hjje8cdg/resources/8kgvy8/methods/GET>.

The "Integration type" is set to "Mock".

The screenshot shows three stacked screenshots of the AWS Management Console API Gateway - Create API interface, illustrating the configuration of a GET method for a specific resource.

**Screenshot 1:** The top screenshot shows the "Method Execution /getcustomerdetailsbyemail - GET - Integration Response" configuration. It includes a table for mapping HTTP status codes and method response statuses, and a section for mapping headers and content types. A JSON template is shown for generating the response body.

HTTP status regex	Method response status	Output model	Default mapping
-	200	-	Yes

**Screenshot 2:** The middle screenshot shows the "Content-Type" mapping configuration. It displays a dropdown set to "application/json" and a code editor containing a JSON template for generating the response body.

```
1 {
2   "FirstName": "Lohith",
3   "LastName": "K",
4   "Email": "klohit2003@gmail.com"
5 }
```

**Screenshot 3:** The bottom screenshot is identical to the middle one, showing the same Content-Type mapping configuration.

The screenshot shows two browser windows side-by-side, illustrating the deployment and testing of an API.

**Top Window (AWS Management Console - API Gateway):**

- The URL is <https://us-east-1.console.aws.amazon.com/apigateway/home?region=us-east-1#/apis/q5hjje8cdg/resources/8kgyy8/methods/GET>.
- The "Deploy API" dialog is open, showing the deployment stage set to "[New Stage]" with "Stage name" as "dev".
- The "Mapping Templates" section shows a mapping template for "Content-Type: application/json" with the following JSON:

```
1 [ { 2 "FirstName": "Lohith", 3 "LastName": "K", 4 "Email": "klohit2003@gmail.com" 5 } ]
```

**Bottom Window (Postman):**

- The URL is <https://q5hjje8cdg.execute-api.us-east-1.amazonaws.com/dev/getcustomerdetailsbyemail>.
- The "Params" tab shows a single parameter "Key" with value "Value".
- The "Body" tab shows the response body in JSON format:

```
1 [ { 2 "FirstName": "Lohith", 3 "LastName": "K", 4 "Email": "klohit2003@gmail.com" 5 } ]
```

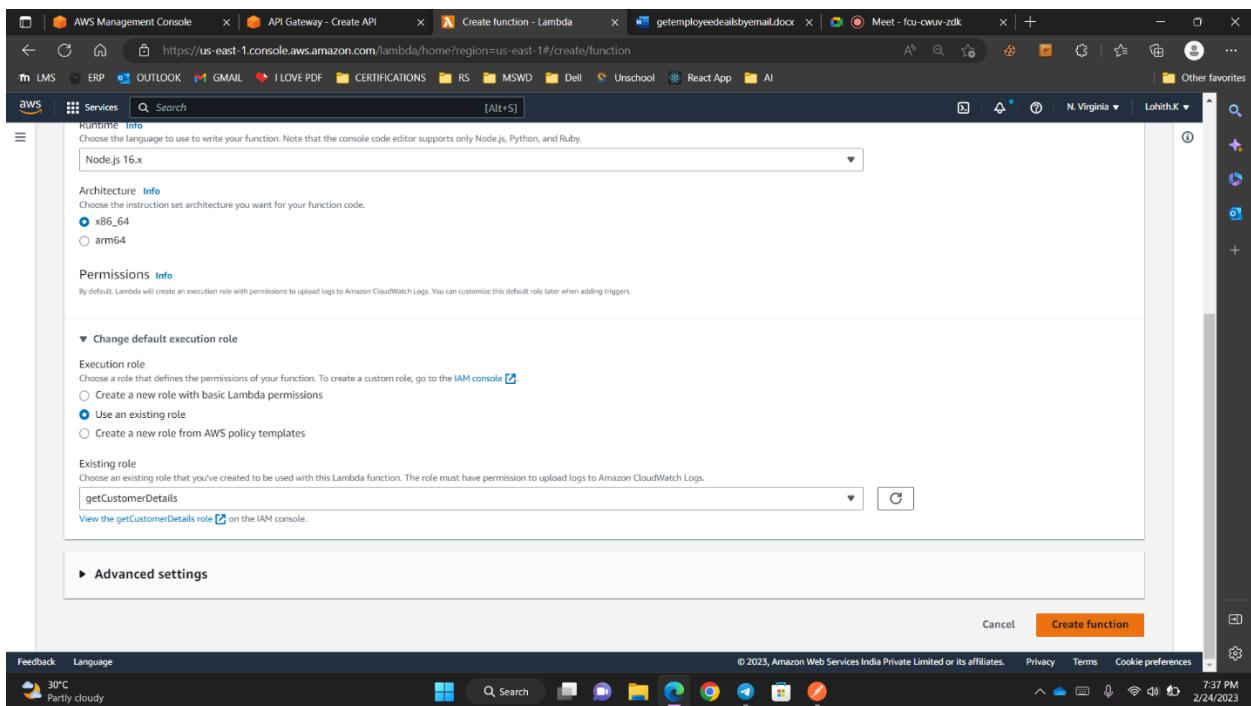
The image shows two screenshots of the AWS Management Console side-by-side.

**Left Screenshot: API Gateway - Create API**

This screenshot shows the "Stages" section of the API Gateway configuration. The left sidebar lists various API resources like "GetEmployeeDet...". The main area is titled "dev Stage Editor" and contains tabs for "Settings", "Logs/Tracing", "Stage Variables", "SDK Generation", "Export", "Deployment History", "Documentation History", and "Canary". Under "Settings", there are sections for "Cache Settings" (with "Enable API cache" checked), "Default Method Throttling" (with a note about a rate of 10000 requests per second), "Web Application Firewall (WAF)" (with a link to learn more), and "Client Certificate" (with a note to select a certificate). A "Save Changes" button is at the bottom right.

**Right Screenshot: Lambda - Create function**

This screenshot shows the "Create function" page. It has three main options: "Author from scratch" (selected), "Use a blueprint", and "Container image". The "Basic information" section includes fields for "Function name" (set to "getCustomerDetailsByEmail"), "Runtime" (set to "Node.js 16.x"), "Architecture" (set to "x86\_64"), and "Permissions" (note that Lambda will create an execution role). The status bar at the bottom indicates it's 7:36 PM on 2/24/2023.



```
const AWS = require('aws-sdk');
```

```
var docClient = new AWS.DynamoDB.DocumentClient();
```

```
var tableName = "CustomerDetails";
```

```
exports.handler = (event, context, callback) => {
```

```
    console.log(event.EmailID)
```

```
    var params = {
```

```
        TableName : tableName,
```

```
        Key:{
```

```
            "EmailID" : event.EmailID
```

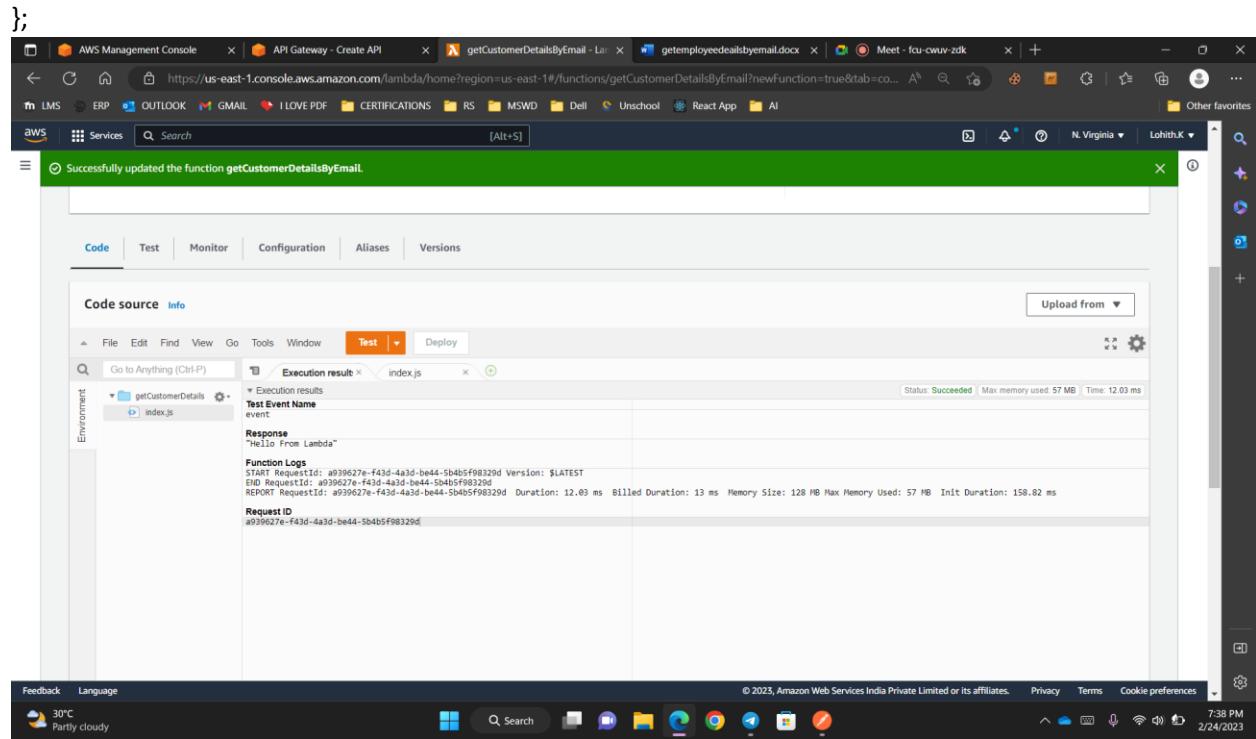
```
 }
```

```
}
```

```
docClient.get(params, function(err,data){
```

```
    callback(err, data);
```

```
});
```



The screenshot shows two separate browser tabs of the AWS Management Console.

**Top Tab (AWS Management Console - Create API):**

- Shows a success message: "Successfully updated the function getCustomerDetailsByEmail."
- Code source tab: Displays the index.js file content:

```
1 exports.handler = async (event, context, callback) => {
2     callback(null, 'Hello From Lambda');
3 }
```
- Test tab: Shows execution results for the getCustomerDetails function.

**Bottom Tab (API Gateway - Create API):**

- Shows the API Resources section for the /getcustomerdetailsbyemail endpoint.
- Method Execution: GET - Integration Request settings:
  - Integration type: Lambda Function (selected)
  - Lambda Region: us-east-1
  - Lambda Function: getCustomerDetailsByEmail
  - Use Default Timeout: checked
- Save button is visible.

The screenshot displays two separate browser windows from the AWS Management Console.

**Top Window: API Gateway - Create API**

This window shows the "Deploy API" dialog. It lists a single resource: "/getcustomerdetailsbyemail" with methods "GET" and "OPTIONS". The "Deployment stage" dropdown is set to "dev". A "Deployment description" field is empty. At the bottom are "Cancel" and "Deploy" buttons.

**Bottom Window: DynamoDB - Create table**

This window shows the "Create table" form. Under "Table details", the "Table name" is set to "CustomerDetails". Under "Partition key", the primary key is defined as "Email" of type "String". Under "Sort key - optional", there is a field "Enter the sort key name" which is currently empty. Both fields have character limits of 1 to 255 characters and are case sensitive. Below the form is a "Table settings" section, which is currently empty.

Both windows include standard browser navigation bars, toolbars, and status bars at the bottom.

The screenshot shows the AWS Management Console interface for creating a new item in an Amazon DynamoDB table named 'CustomerDetails'. The 'Email' attribute is set as the partition key with the value 'klohith2003@gmail.com'. The 'First Name' attribute has the value 'Lohith', and the 'Last Name' attribute has the value 'K'. The 'Create Item' button is highlighted in orange at the bottom right.

**Create item**

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**

Attribute name	Value	Type	Action
Email - Partition key	klohith2003@gmail.com	String	
First Name	Lohith	String	Remove
Last Name	K	String	Remove

Add new attribute ▾

Cancel **Create Item**

The screenshot shows the AWS Management Console interface for the Lambda function 'getCustomerDetailsByEmail'. A green success message at the top states 'Successfully updated the function getCustomerDetailsByEmail.' The 'Test' tab is selected in the navigation bar. In the 'Event JSON' section, the event payload is defined as:

```
1+ {  
2+   "Email":"klohith2003@gmail.com"  
3+ }
```

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Screenshot of the AWS Management Console showing the successful update of the Lambda function `getCustomerDetailsByEmail`.

**Code source** tab selected. Execution result shows a successful test run with the following response:

```

{
  "Item": {
    "First Name": "Lohith",
    "Last Name": "K",
    "Email": "klohit200@gmail.com"
  }
}

```

**API Gateway - Create API** section showing the `/getcustomerdetailsbyemail` resource configuration.

The **Authorization** dropdown is set to **NONE**. The **Request Validator** dropdown is set to **Validate query string parameters and headers**.

The **API Key Required** dropdown has three options: **NONE**, **Validate body**, and **Validate body, query string parameters, and headers**.

The **URL Query String Parameters** table shows one parameter: **Email** (Required: Yes, Caching: No).

The image displays two screenshots of the AWS Management Console API Gateway interface, showing the configuration of a GET method for a specific resource.

**Screenshot 1: Method Request Configuration**

This screenshot shows the "Method Execution" configuration for the GET method of the "/getcustomerdetailsbyemail" resource. The "Authorization" is set to "NONE". The "Request Validator" is disabled ("false"). The "API Key Required" is also disabled ("false").

**Screenshot 2: Integration Request Configuration**

This screenshot shows the "Integration Request" configuration for the same GET method. The "Integration type" is set to "Lambda Function". The "Lambda Region" is "us-east-1". The "Lambda Function" is "getCustomerDetailsByEmail". The "Execution role" is selected. The "Invoke with caller credentials" option is checked. The "Credentials cache" is set to "Do not add caller credentials to cache key". The "Use Default Timeout" checkbox is checked.

Both screenshots include a sidebar with various AWS service links and a bottom navigation bar with browser icons and system status.

The screenshot shows the AWS API Gateway - Create API interface. A mapping template is being defined for the application/json content type. The template code is as follows:

```
1 {  
2   "Email": "$input.params('Email')"  
3 }
```

The screenshot displays two windows side-by-side. The left window is the AWS Management Console showing the configuration of an AWS Lambda function named 'Edit basic settings (getCustomerDetails)'. The right window is a Postman application showing the results of an API request to the Lambda function.

**AWS Management Console (Left Window):**

- Memory:** Set to 128 MB.
- Ephemeral storage:** Set to 512 MB.
- SnapStart:** Set to None.
- Timeout:** Set to 1 min 0 sec.
- Execution role:** Set to 'Use an existing role' with 'getCustomerDetails' selected.

**Postman Application (Right Window):**

- Request URL:** `https://q5hjje8cdg.execute-api.us-east-1.amazonaws.com/dev/getcustomerdetailsbyemail?Email=klohit2003@gmail.com`
- Method:** GET
- Params:** Email (Value: `klohit2003@gmail.com`)
- Body:** PRETTY JSON response:

```
1: {
2:   "First Name": "Lohith",
3:   "Last Name": "K",
4:   "Email": "klohit2003@gmail.com"
5: }
```
- Status:** 200 OK
- Time:** 342 ms
- Size:** 386 B

getCustomerDetailsByEmail - Lambda | API Gateway | S3 bucket | getemployeeleadsbyemail.docx | +

https://s3.console.aws.amazon.com/s3/bucket/create?region=us-east-1

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Amazon S3 > Buckets > Create bucket

### Create bucket Info

Buckets are containers for data stored in S3. [Learn more](#)

**General configuration**

Bucket name:  Bucket name must be globally unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

AWS Region:

Copy settings from existing bucket - optional  
Only the bucket settings in the following configuration are copied.

[Choose bucket](#)

**Object Ownership Info**  
Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

ACLs disabled (recommended)  ACLs enabled

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AWS Services Search [Alt+S]

### Object Ownership Info

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

ACLs disabled (recommended) All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

ACLs enabled Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

**Object Ownership**

Bucket owner preferred If new objects written to this bucket specify the bucket-owner-full-control canned ACL, they are owned by the bucket owner. Otherwise, they are owned by the object writer.

Object writer The object writer remains the object owner.

If you want to enforce object ownership for new objects only, your bucket policy must specify that the bucket-owner-full-control canned ACL is required for object uploads. [Learn more](#)

**Upcoming permission changes to enable ACLs**  
Starting in April 2023, to enable ACLs when creating buckets by using the S3 console, you must have the s3:PutBucketOwnershipControls permission. [Learn more](#)

**Block Public Access settings for this bucket**  
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket.

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**Block public and cross-account access to buckets and objects through any public bucket or access point policies**

S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

**⚠️ Turning off block all public access might result in this bucket and the objects within becoming public**

AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

I acknowledge that the current settings might result in this bucket and the objects within becoming public.

**Upcoming permission changes to disable any Block Public Access setting**

Starting in April 2023, to disable any Block Public Access setting when creating buckets by using the S3 console, you must have the s3:PutBucketPublicAccessBlock permission. [Learn more](#)

**Bucket Versioning**

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Bucket Versioning

Disable

Enable

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Amazon S3 > Buckets > getcustomerdetails31668 > Upload

**Upload**

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose Add files, or Add folder

**Files and folders (0)**

All files and folders in this table will be uploaded.

Find by name

Name	Type	Date modified	Size
No files or folders			

You have not chosen any files or folders to upload.

**Destination**

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## Index.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title></title>
```

```
<meta charset="utf-8" />
<script src="jquery-3.1.1.min.js"></script>
<script src="knockout-3.4.2.js"></script>
<script type="text/javascript">

$(document).ready(function() {

    var customerViewModel = function() {
        var self = this;
        self.firstName = ko.observable("");
        self.lastName = ko.observable("");
        self.emailId = ko.observable("");
        self.searchKey = ko.observable("");

        self.getCustomerDetails = function () {
            $.ajax({
                url: 'https://goxl5wlgoh.execute-api.us-east-1.amazonaws.com/Dev/getcustomerdetailsbyemail',
                cache: false,
                type: 'GET',
                data: { "EmailID": self.searchKey() },
                success: function (data) {
                    self.firstName(data.Item.FirstName)
                    self.lastName(data.Item.LastName),
                    self.emailId(data.Item.EmailID)
                }
            });
        }
    }
});
```

```
}

var viewModel = new customerViewModel();
ko.applyBindings(viewModel);
});

</script>
</head>
<body>
<table>
<tr>
<td>Search Key(EmailID):</td>
<td><input type="text" id="txtSearchKey" data-bind="value : searchKey"/></td>
</tr>
</table>

<br />

<table id="CustomerDetails">
<thead>
<tr>
<td>First Name:</td>
<td><label id="firstName" data-bind="text: firstName"/></td>
</tr>
<tr>
<td>Last Name:</td>
<td><label id="lastName" data-bind="text: lastName"/></td>

```

```
</tr>
<tr>
    <td>EmailID:</td>
    <td><label id="emailld" data-bind="text: emailld"/></td>
</tr>

</thead>

</table>

<br />

<table>
<tr>
    <td><input type="button" value="GetCustomerDetails" data-bind="click: $root.getCustomerDetails()"/></td>
</tr>
</table>
</body>
</html>
```

**Step 1: Select Policy Type**

A Policy is a container for permissions. The different types of policies you can create are an IAM Policy, an S3 Bucket Policy, an SNS Topic Policy, a VPC Endpoint Policy, and an SQS Queue Policy.

Select Type of Policy: S3 Bucket Policy

**Step 2: Add Statement(s)**

A statement is the formal description of a single permission. See a description of elements that you can use in statements.

Effect: Allow

Principal: \*

AWS Service: Amazon S3

Actions: 1 Action(s) Selected

Amazon Resource Name (ARN): arn:aws:s3:::getcustomerdetails31668

Add Conditions (Optional)

Add Statement

**Step 3: Generate Policy**

A policy is a document (written in the Access Policy Language) that acts as a container for one or more statements.

Add one or more statements above to generate a policy.

The screenshot shows a browser window with the AWS Policy Generator tool. The URL is <https://aws policymgen.s3.amazonaws.com/policygen.html>. The page displays a JSON policy document:

```
{
  "Id": "Policy1677048182616",
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "Stmt1677048181158",
      "Action": [
        "s3:GetObject"
      ],
      "Effect": "Allow",
      "Resource": "arn:aws:s3:::getcustomerdetails31668",
      "Principal": "*"
    }
  ]
}
```

Below the JSON editor, there is a note: "This AWS Policy Generator is provided for informational purposes only, you are still responsible for your use of Amazon Web Services technologies and ensuring that your use is in compliance with all applicable terms and conditions. This AWS Policy Generator is provided as-is without warranty of any kind, whether express, implied, or statutory. This AWS Policy Generator does not modify the applicable terms and conditions governing your use of Amazon Web Services technologies." A "Close" button is visible at the bottom of the editor.

## Static web hosting of s3

The screenshot shows a browser window with the AWS Management Console. The URL is <https://31668customerdetails.s3-website-us-east-1.amazonaws.com>. The page displays a search bar with the email ID "1234@gmail.com". Below the search bar, there is some user information: "First Name: K Lohith", "Last Name:", and "EmailID: 1234@gmail.com". At the bottom of the page is a button labeled "GetCustomerDetails".