### **1. Create a Lambda Function**

1. Go to **AWS Lambda**.
2. Click **"Create function"** > Choose **Author from scratch**.
3. Function name: getFileFromS3 (or whatever you prefer).
4. Runtime: Node.js (or Python, etc., depending on your code).
5. Under **Permissions**, choose **Use an existing role**, then select the lambda-s3-role. (Or any role that has permissions for the specific AWS component you’ll be interacting with)
6. Click **Create function**.

#### **Add Your Code:**

In the code editor (or upload via zip/Git/S3), paste the Lambda function that interacts with S3 (like the one we wrote earlier).

For our specific scenario it's best if you upload a zip of your lambda function from your local environment with its necessary node packages.

### **✅ 2. Test Your Lambda**

1. Click **Test** in the top right.
2. Create a new test event with sample input:

json

{

"username": "john\_doe",

"fileName": "example.txt"

}

1. Click **Test** again to run it.
2. View the result and logs in the **Execution result** panel.

### **✅ 3. Create an API Gateway for Your Lambda**

1. Go to **API Gateway** in AWS.
2. Choose **HTTP API** > Click **Build**.
3. Under **Add integrations**, choose **Lambda Function**.
4. Select your Lambda function (e.g., getFileFromS3).
5. Click **Next**, configure route:  
   * **Method:** GET or POST
   * **Resource path:** /get-file
6. Click **Next**, name your API (e.g., S3FileAPI).
7. Click **Create**.

### **✅ 4. Deploy & Test the API**

1. Once created, you'll see an **Invoke URL** (e.g., https://abc123.execute-api.ca-central-1.amazonaws.com/get-file)
2. Use a tool like **Postman**, **curl**, or a browser to test the endpoint:  
   * If it's a POST endpoint:

bash

CopyEdit

curl -X POST https://abc123.execute-api.ca-central-1.amazonaws.com/get-file \

-H "Content-Type: application/json" \

-d '{"username": "john\_doe", "fileName": "example.txt"}'

### **✅ 5. (Optional) Enable CORS for Web Access**

If you plan to access from a browser app:

1. Go to **API Gateway > Your API > CORS**.
2. Enable CORS for the route /get-file.
3. Allow headers like Content-Type, allow methods like POST, GET.