📘 Amazon S3: Step-by-Step Using AWS Educate

✅ 1. Sign Up / Log In to AWS Educate

- Go to: https://awseducate.com
- Log in with your student credentials.
- If new, click on **"Join AWS Educate"**, choose **Student**, and complete the form.

✅ 2. Access AWS Console via AWS Educate

- After logging in, click on **"AWS Console"** under the **"Your Classrooms"** section.
- This opens the **AWS Management Console** in a new tab.

✅ 3. Search and Open S3

- In the search bar at the top of the AWS Console, type **"S3"**.
- Click on **"S3 (Scalable Storage in the Cloud)"** from the results.

✅ 4. Create an S3 Bucket

- Click the **"Create bucket"** button (top-right).
- Fill in the required details:
    - **Bucket name**: Must be globally unique (e.g., studentlearn-xyz-bucket)
    - **Region**: Choose the region (e.g., Asia Pacific (Mumbai))

⚙️ Other Settings:

- Leave default settings for now (you can change public access, versioning, encryption later).
- Click **"Create bucket"** at the bottom.

✅ 5. Upload a File to Your Bucket

- Click on your newly created bucket name.
- Click **“Upload”**, then:
    - Click **“Add files”** and select a file from your computer (e.g., image, PDF).
    - Click **“Upload”**.

✅ 6. Make the File Public (Optional)

- After upload, select the file.
- Click on **“Actions” > “Make public”** (if enabled).
- You will get a **public URL** to access your file from anywhere.

✅ 7. View or Download the File

- Click on the uploaded file in the bucket.
- You’ll see a **"Object URL"** – click it to open/download the file.

✅ 8. Delete Objects or Bucket

- To delete files: Select them and choose **“Delete”**.
- To delete the entire bucket: Go back to **S3 home**, select your bucket, and click **“Delete”**.

🧠 What You Just Learned:

- How to **create**, **upload**, **share**, and **manage** files in Amazon S3 using AWS Educate.

📘 Amazon RDS: Step-by-Step Using AWS Educate

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✅ 2. Access AWS Console via AWS Educate

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✅ 3. Search and Open RDS (Relational Database Service)

- In the AWS Console, use the search bar at the top and type **"RDS"**.
- Click on **"RDS – Relational Database Service"** from the results.

✅ 4. Create an RDS Database Instance

- Click on **"Create database"**.
- Choose **"Standard Create"**.
- Select a **Database Engine** (e.g., MySQL, PostgreSQL, or MariaDB).

⚙️ Database Settings:

- **DB Instance Identifier**: Choose a name for your database (e.g., student-db).
- **Master Username**: Set a username (e.g., admin).
- **Master Password**: Set a strong password and confirm it.

⚙️ DB Instance Size and Storage:

- Choose **"Free tier"** if available (e.g., db.t2.micro instance).
- Set **Storage type** to **General Purpose (SSD)**.

⚙️ VPC & Network Settings:

- Leave default VPC and network settings for now.
- Make sure the database is **publicly accessible** if you want to connect from outside AWS.

⚙️ **Backup and Monitoring:**

- Keep backup settings as default.
- You can enable monitoring, but it's optional.
- Click on **"Create database"**.

✅ **5. Connect to the Database**

- After the database is created, go to the **RDS Dashboard**.
- Select your newly created DB instance.
- Copy the **Endpoint** (e.g., student-db.c8h7t6vkjf8r.us-west-2.rds.amazonaws.com) and **Port** (default: 3306 for MySQL).

Using MySQL Workbench (or any database client):

1. Open MySQL Workbench.
2. Click **New Connection**.
3. In **Hostname**, paste the copied endpoint.
4. Use **Username** (e.g., admin) and the **Password** you set earlier.
5. Click **Test Connection** and then **OK**.

✅ **6. Create and Manage Database Tables**

- Once connected, create a new database if needed:

sql

```
CREATE DATABASE studentdb;
```

- Create a table inside the database:

Sql

```
USE studentdb;

CREATE TABLE students (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100),
    age INT
);
```

✅ 7. Insert Data into the Table

- Insert some test data into the table:

sql

```
INSERT INTO students (name, age) VALUES ('John Doe', 22);

INSERT INTO students (name, age) VALUES ('Jane Smith', 21);
```

✅ 8. Query Data from the Table

- Query the data to verify:

Sql

```
SELECT * FROM students;
```

✅ 9. Delete Database or Tables

- To delete a table:

sql

```
DROP TABLE students;
```

- To delete the entire database:

sql

```
DROP DATABASE studentdb;
```
