



Create and Delete Topic on Amazon SNS using AWS SDK

1. First, you must create a folder on your laptop and then open that folder in VS Code. Now create a text file there and store your commands in it.
2. So, based on the below text file we are going to proceed in this lab. First, we need to run the **npm init -y** command to convert our folder into a node.js application.

```
>Welcome  X  commands.txt  X
commands.txt
1 Create and Delete Topic on Amazon SNS using AWS SDK
2 ---
3 Commands :
4   | CreateTopicCommand
5   | ListTopicsCommand
6   | DeleteTopicCommand
7 ---
8 npm init -y
9 npm install @aws-sdk/client-sns
10 ---
11 Create Client Object:
12
13 snsClient.js
14 import { SNSClient } from "@aws-sdk/client-sns";
15 const REGION = "us-east-2";
16 const snsClient = new SNSClient({ region: REGION });
17 export { snsClient };
18
19 ---
20 Subscribe and Unsubscribe from Topic on Amazon SNS using AWS SDK
21
22 ListSubscriptionsByTopicCommand
23 SubscribeCommand
24 ConfirmSubscriptionCommand
25 UnsubscribeCommand
```

3. So, open the terminal and run the command and it will create a package.json file in your folder.

npm init -y

```
● PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK> npm init -y
Wrote to D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK\package.json:

{
  "name": "create-and-delete-topic-on-amazon-sns-using-aws-sdk",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \\"Error: no test specified\\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}
```

- Now open the package.json file and after main on the 5th line you need to add a 6th line for the type module.

```
FOLDERS: C... 📂 E+F ⌛ 🔍 🗃 commands.txt 📁 package.json ●
📁 commands.txt
📄 package.json
```

```
package.json > type
1  {
2    "name": "create-and-delete-topic-on-amazon-sns-using-aws-sdk",
3    "version": "1.0.0",
4    "description": "",
5    "main": "index.js",
6    "type": "module",|> Debug
7    "scripts": {
8      "test": "echo \\"Error: no test specified\\" && exit 1"
9    },
10   "keywords": [],
11   "author": "",
12   "license": "ISC"
13 }
14
```

- Then we need to run this command to install the SNS client.

npm install @aws-sdk/client-sns

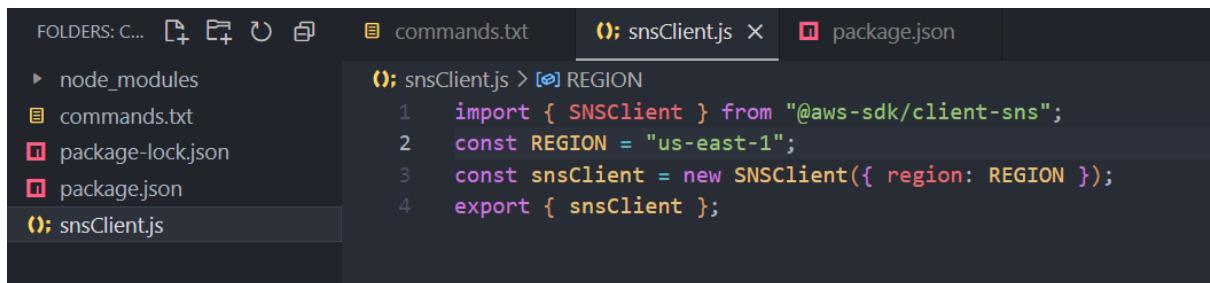
```
PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK> npm install @aws-sdk/client-sns
added 77 packages, and audited 78 packages in 3s
2 packages are looking for funding
  run `npm fund` for details
found 0 vulnerabilities
○ PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK>
```

- Once the command is executed successfully, if you open the package.json file you will see that on line 13 dependencies for the AWS client have been installed.



```
8   "test": "echo \"Error: no test specified\" && exit 1"
9 },
10  "keywords": [],
11  "author": "",
12  "license": "ISC",
13  "dependencies": {
14    "@aws-sdk/client-sns": "^3.693.0"
15  }
16 }
17 }
```

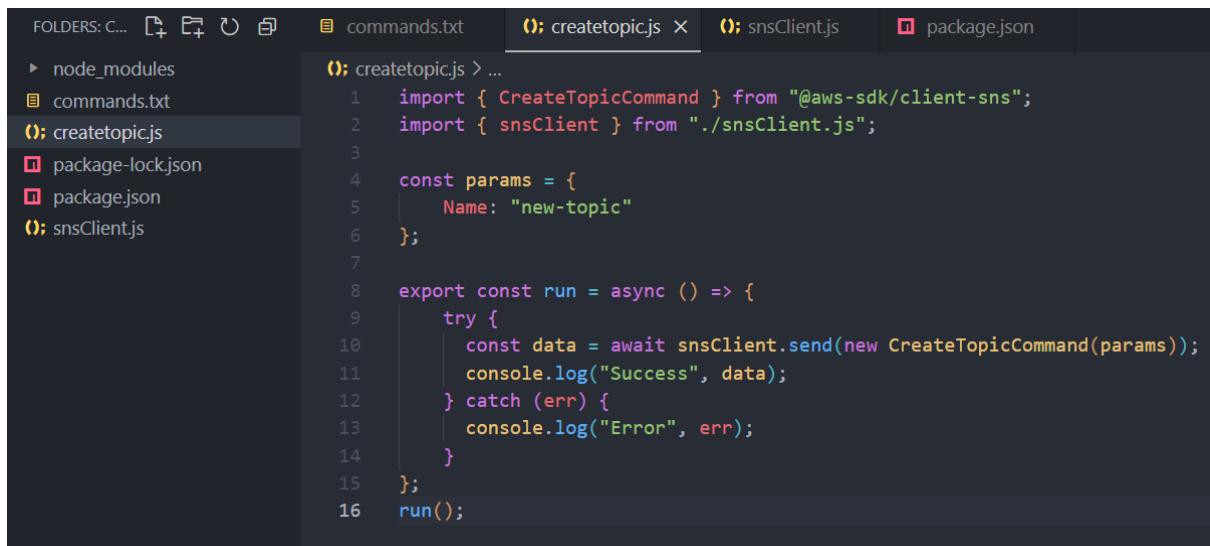
7. After that we are going to create a SNS client file. You need to give the same name snsClient.js.



```
FOLDERS: C... commands.txt snsClient.js package.json
node_modules
commands.txt
package-lock.json
package.json
snsClient.js
```

```
0: snsClient.js > [REPO] REGION
1 import { SNSClient } from "@aws-sdk/client-sns";
2 const REGION = "us-east-1";
3 const snsClient = new SNSClient({ region: REGION });
4 export { snsClient };
```

8. Now we can move forward with the creation of the topics. For that, you need to create a new file and use the code given below.



```
FOLDERS: C... commands.txt createtopic.js snsClient.js package.json
node_modules
commands.txt
createtopic.js
package-lock.json
package.json
snsClient.js
```

```
0: createtopic.js > ...
1 import { CreateTopicCommand } from "@aws-sdk/client-sns";
2 import { snsClient } from "./snsClient.js";
3
4 const params = {
5   Name: "new-topic"
6 };
7
8 export const run = async () => {
9   try {
10     const data = await snsClient.send(new CreateTopicCommand(params));
11     console.log("Success", data);
12   } catch (err) {
13     console.log("Error", err);
14   }
15 };
16 run();
```

9. Now we are going to create our first topic by running the node command and giving the file name. Below you can see that we get the status code 200, which means that our topic has been created.

10. Also, if you go to the console and verify your topic.

```
● PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK> node .\createtopic.js
○ Success {
  '$metadata': {
    httpStatusCode: 200,
    requestId: '672df21d-c4a5-5dfa-bdc2-ada8dc397467',
    extendedRequestId: undefined,
    cfId: undefined,
    attempts: 1,
    totalRetryDelay: 0
  },
  TopicArn: 'arn:aws:sns:us-east-1:878893308172:new-topic'
}
PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK>
```

The screenshot shows the AWS SNS 'Topics' page. At the top, there are buttons for 'Edit', 'Delete', 'Publish message', and 'Create topic'. Below is a search bar and a table with columns 'Name', 'Type', and 'ARN'. A single row is listed: 'new-topic' (Standard type) with ARN 'arn:aws:sns:us-east-1:878893308172:new-topic'.

11. Then we are going to create a new file to list our topic. Use the same code as shown below.

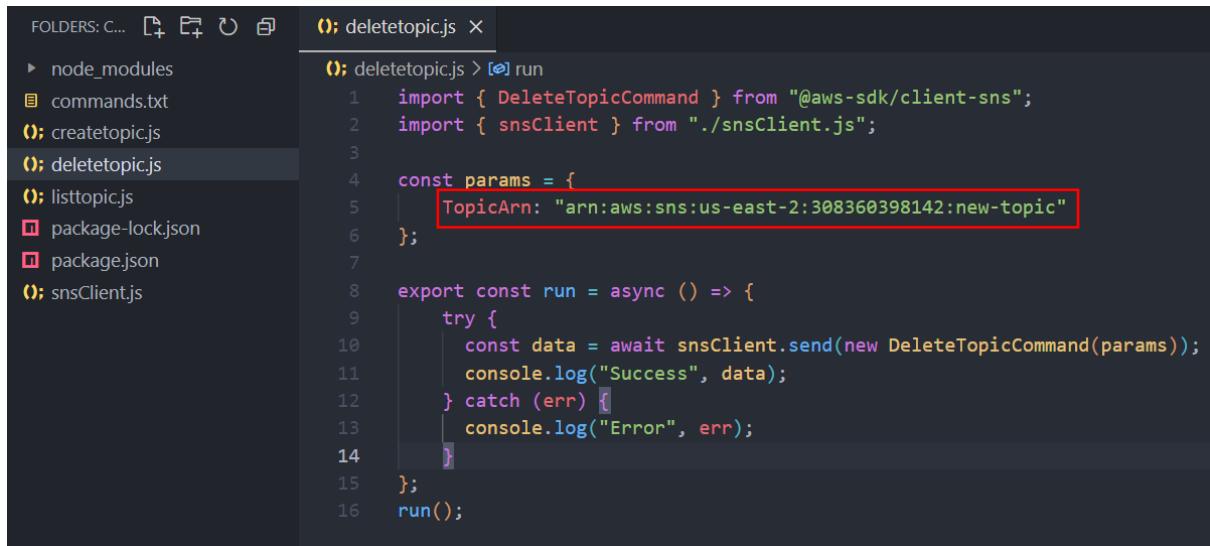
The screenshot shows a terminal window with several files listed in the sidebar: commands.txt, createtopic.js, listtopic.js, package-lock.json, package.json, and snsClient.js. The main pane displays the content of the 'listtopic.js' file:

```
❶ import { ListTopicsCommand } from "@aws-sdk/client-sns";
❷ import { snsClient } from "./snsClient.js";
❸
❹ export const run = async () => {
❺   try {
❻     const data = await snsClient.send(new ListTopicsCommand({}));
❼     console.log("Success", data);
➋   } catch (err) {
⌋     console.log("Error", err);
⌌   }
⌍ };
⌎ run();
```

12. As you can see below when we ran the list topic file, we can see that we only have one topic whose name is a new topic. So, this is how we can list our topics using AWS SDK.

```
● PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK> node .\listtopic.js
○ Success {
  '$metadata': {
    httpStatusCode: 200,
    requestId: 'fb65bae3-5692-559a-8d27-e5564ccce4d0',
    extendedRequestId: undefined,
    cfId: undefined,
    attempts: 1,
    totalRetryDelay: 0
  },
  Topics: [ { TopicArn: 'arn:aws:sns:us-east-1:878893308172:new-topic' } ]
}
PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK>
```

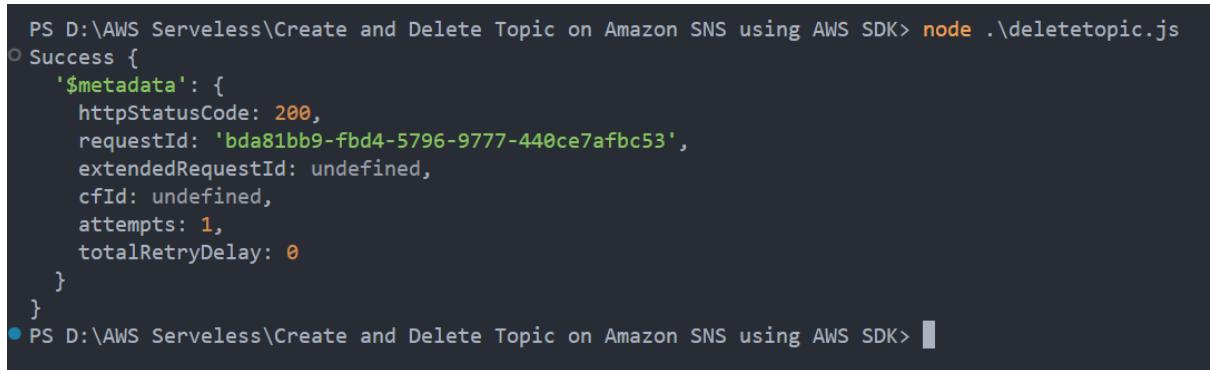
13. The other file we need to create is the deletetopic.js file. Using this file we will delete our topic. You just need to change the Topic ARN with your topic ARN.



```
FOLDERS: C... ⌂ ⌂ ⌂ ⌂ ⌂
  ▶ node_modules
  ⌂ commands.txt
  ⌂ createtopic.js
  ⌂ deletetopic.js
  ⌂ listtopic.json
  ⌂ package-lock.json
  ⌂ package.json
  ⌂ snsClient.js

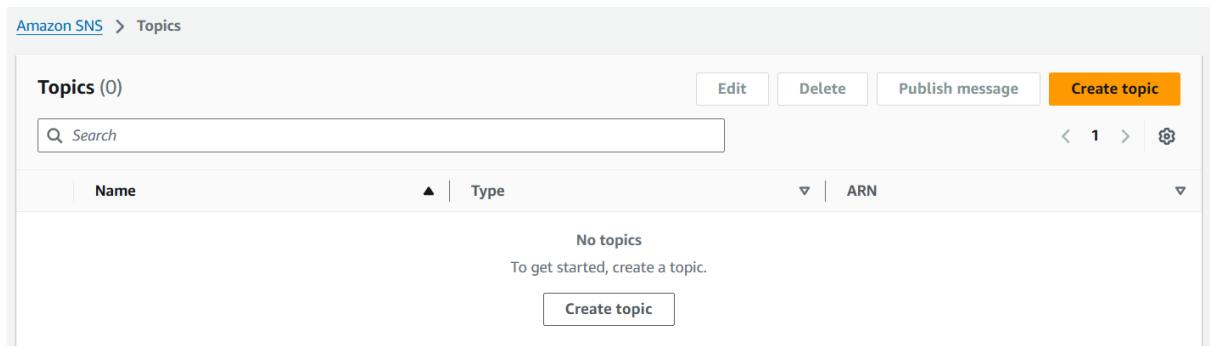
  ⌂ deletetopic.js > [⠄] run
    1 import { DeleteTopicCommand } from "@aws-sdk/client-sns";
    2 import { snsClient } from "./snsClient.js";
    3
    4 const params = {
    5   TopicArn: "arn:aws:sns:us-east-2:308360398142:new-topic"
    6 };
    7
    8 export const run = async () => {
    9   try {
   10     const data = await snsClient.send(new DeleteTopicCommand(params));
   11     console.log("Success", data);
   12   } catch (err) {
   13     console.log("Error", err);
   14   }
   15 };
   16 run();
```

14. Below you can see that our topic has been deleted now.



```
PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK> node .\deletetopic.js
○ Success {
  '$metadata': {
    httpStatusCode: 200,
    requestId: 'bda81bb9-fbd4-5796-9777-440ce7afbc53',
    extendedRequestId: undefined,
    cfId: undefined,
    attempts: 1,
    totalRetryDelay: 0
  }
}
● PS D:\AWS Serveless\Create and Delete Topic on Amazon SNS using AWS SDK>
```

15. If you go to the console you will see that your topic has been deleted now.



Name	Type	ARN
No topics		
To get started, create a topic.		
Create topic		