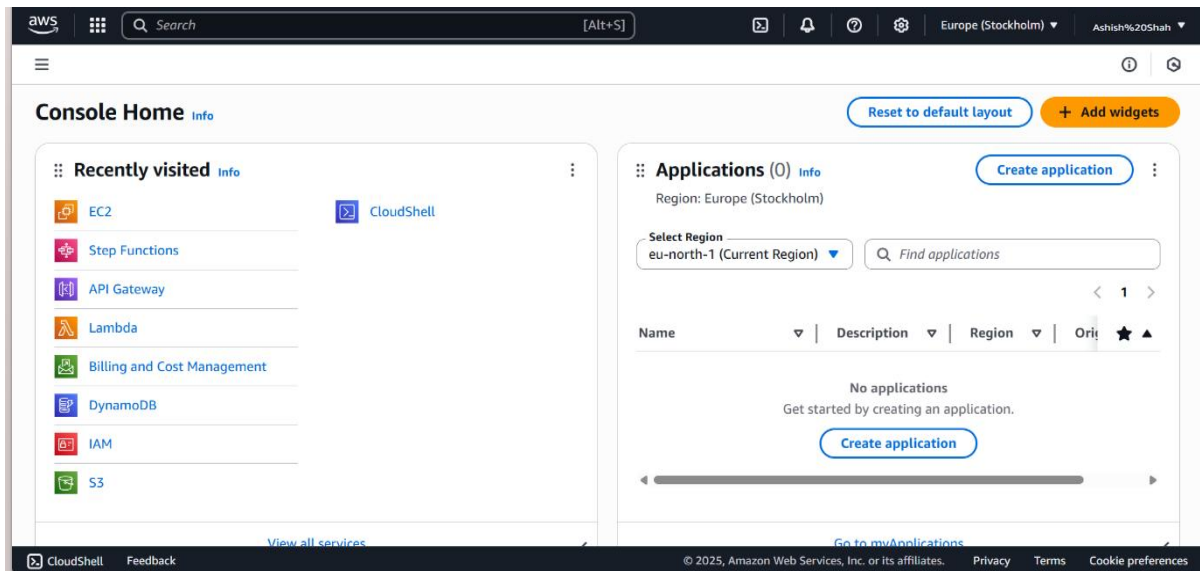


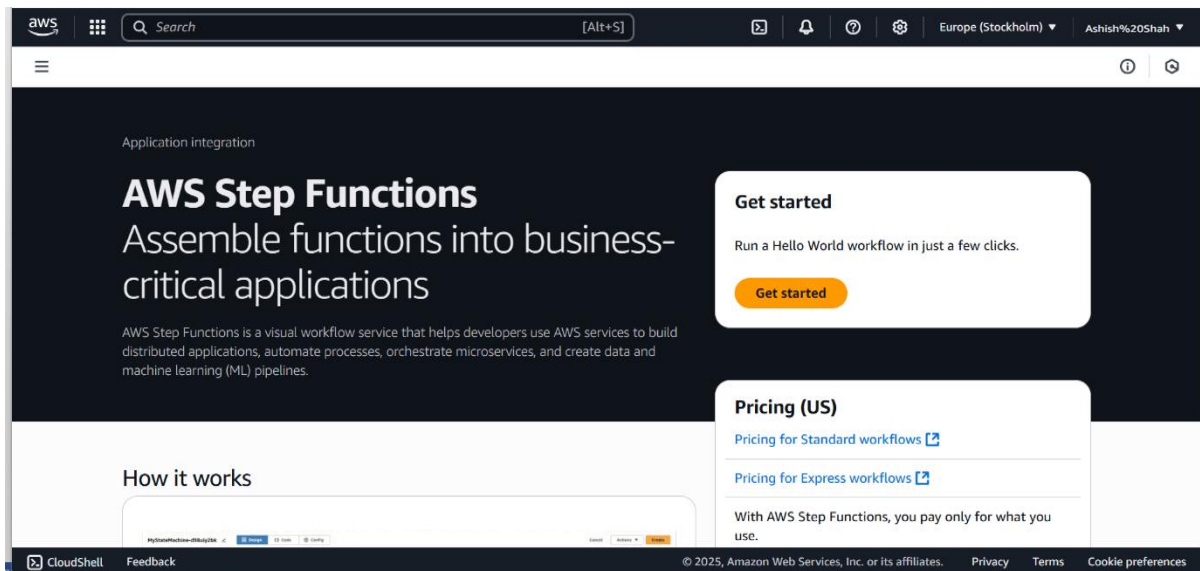
PROGRAM 9: Orchestrating Serverless Functions with AWS Step Functions.

Steps for creating an AWS Step Function:

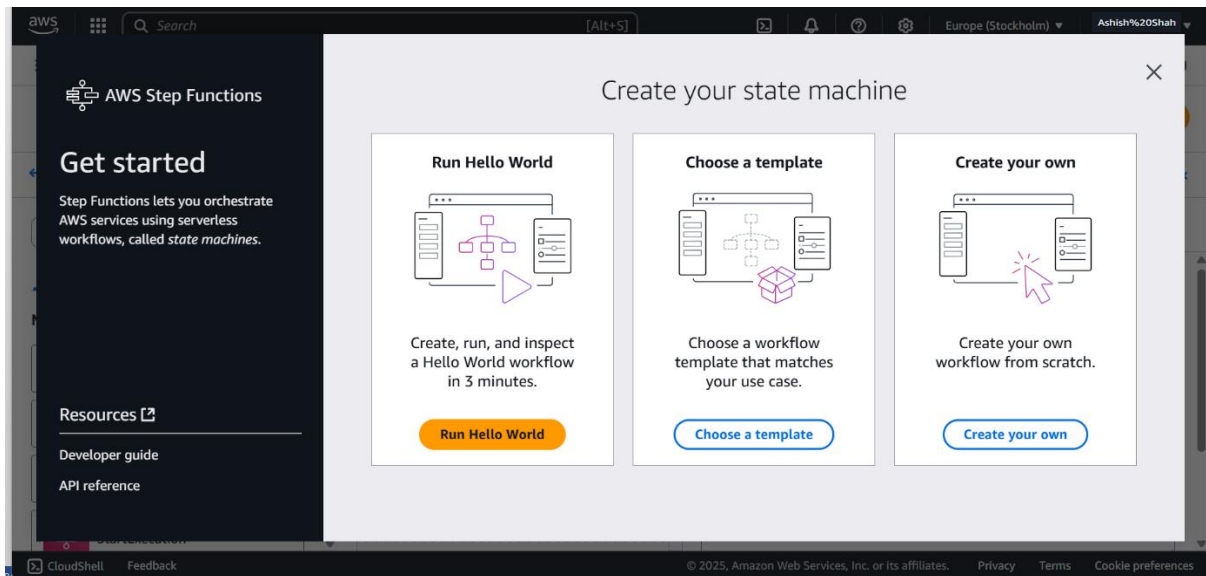
Step 1: Login to AWS Account.



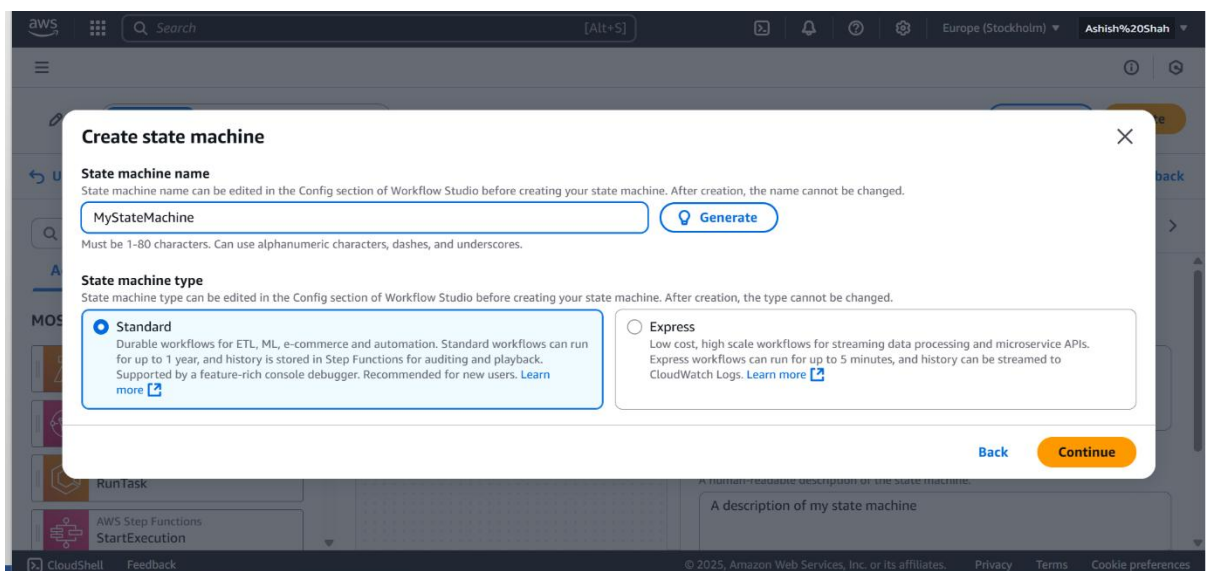
Step 2: Open AWS Step Functions dashboard.



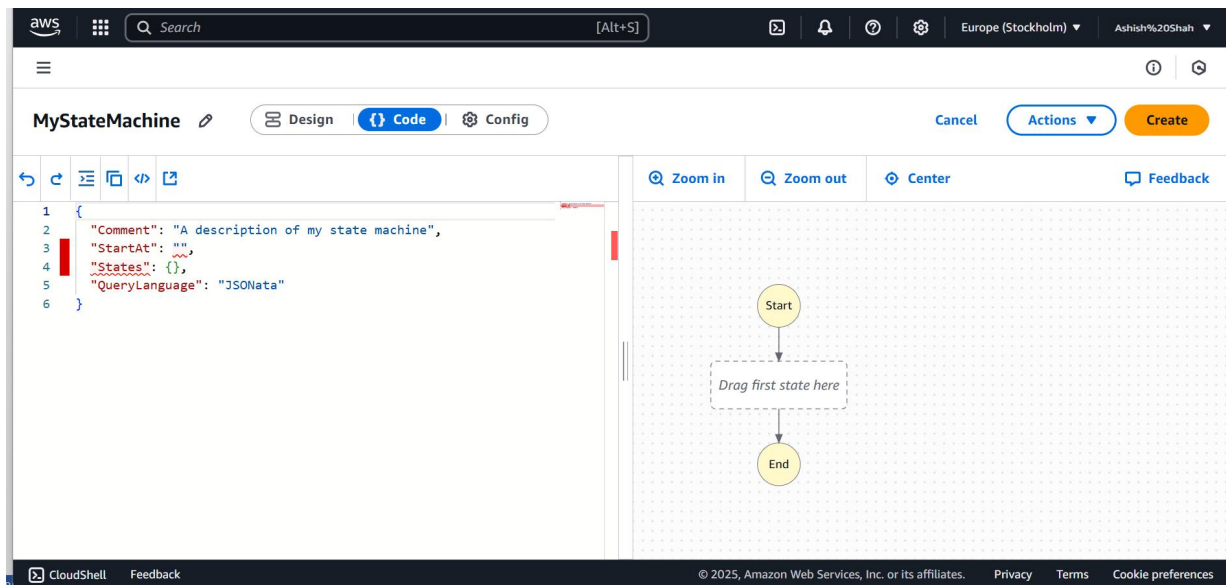
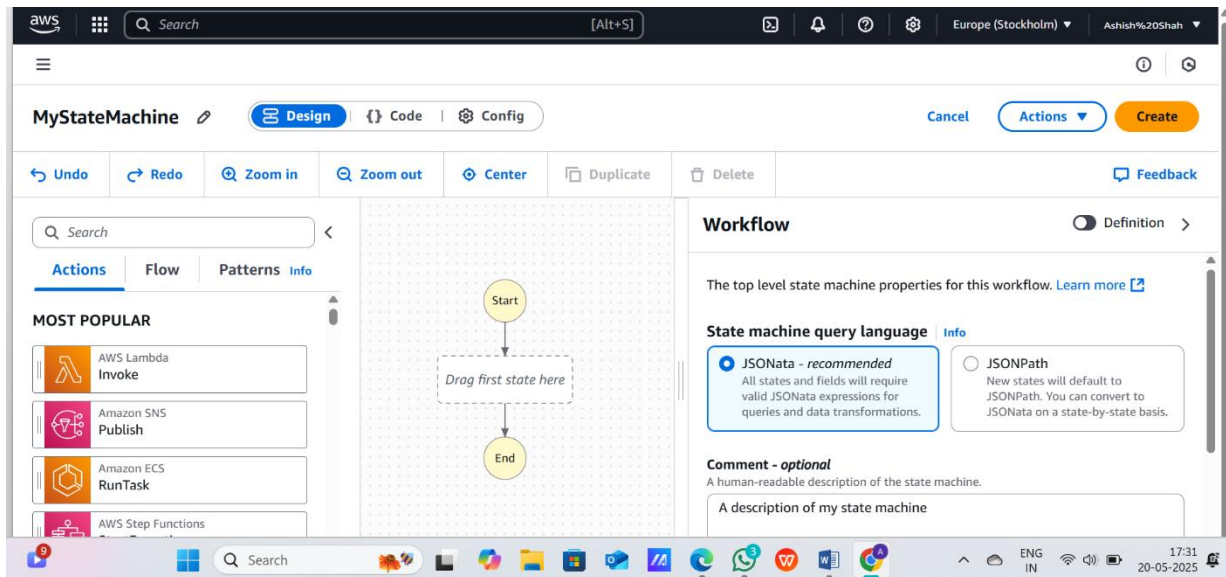
Step 3: In 'Create your state machine' dialog box, select 'Create your own' option.



Step 4: In 'Create state machine' dialog box, give State Machine a name (e.g. MyStateMachine), select type as Standard and click on Continue.



Step 5: In your machine dashboard, explore Design and Code templates.



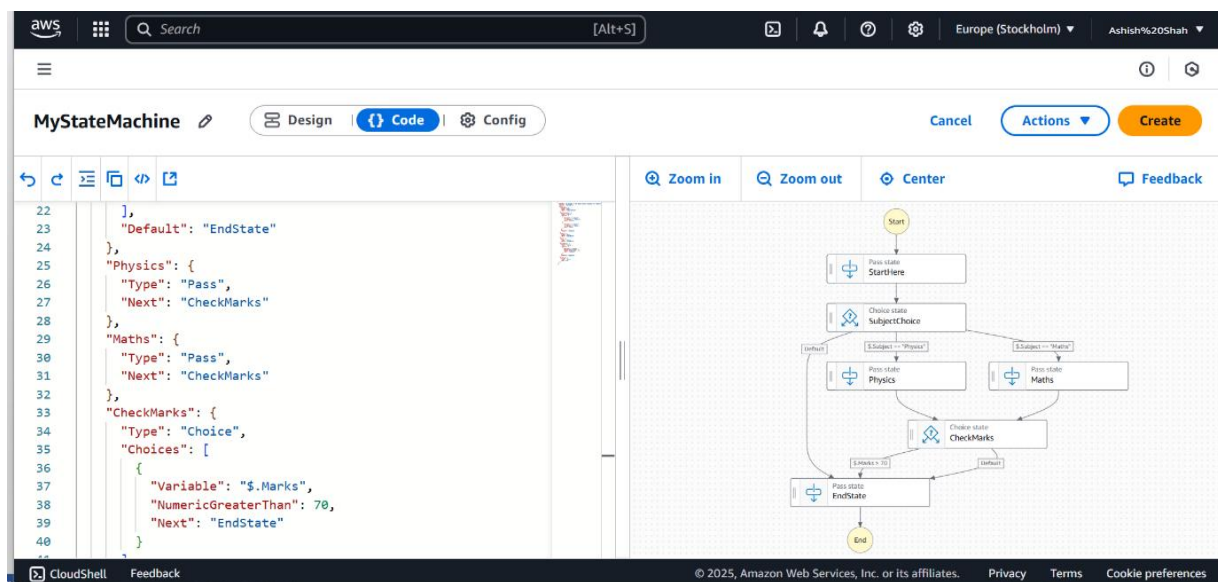
Step 6: In Code section, type the following code & click on Create:

```
{
  "Comment": "An example of the Amazon States Language for scheduling a task.",
  "StartAt": "StartHere",
  "States": {
    "StartHere": {
      "Type": "Pass",
      "Next": "SubjectChoice"
    },
    "SubjectChoice": {
      "Type": "Choice",
      "Choices": [
        {
          "Variable": "$.Subject",
          "StringEquals": "Physics",
          "Next": "Physics"
        },
        {
          "Variable": "$.Subject",
          "StringEquals": "Maths",
          "Next": "Maths"
        }
      ],
      "Default": "EndState"
    },
    "Physics": {
      "Type": "Pass",
      "Next": "CheckMarks"
    },
    "Maths": {
      "Type": "Pass",
```

```

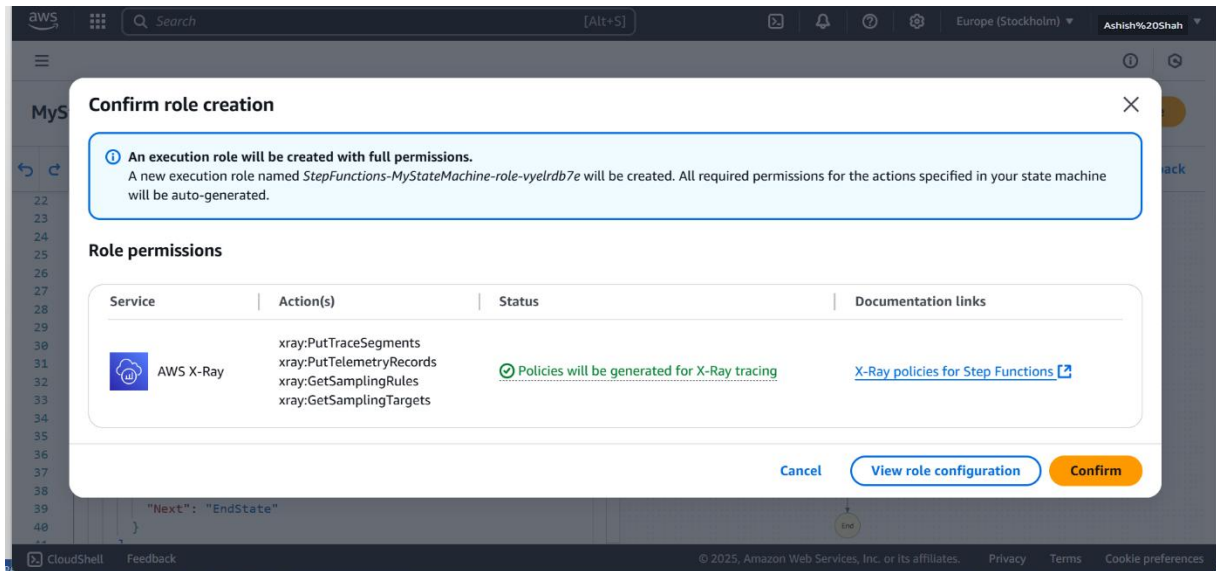
    "Next": "CheckMarks"
  },
  "CheckMarks": {
    "Type": "Choice",
    "Choices": [
      {
        "Variable": "$.Marks",
        "NumericGreaterThan": 70,
        "Next": "EndState"
      }
    ],
    "Default": "EndState"
  },
  "EndState": {
    "Type": "Pass",
    "End": true
  }
}

```

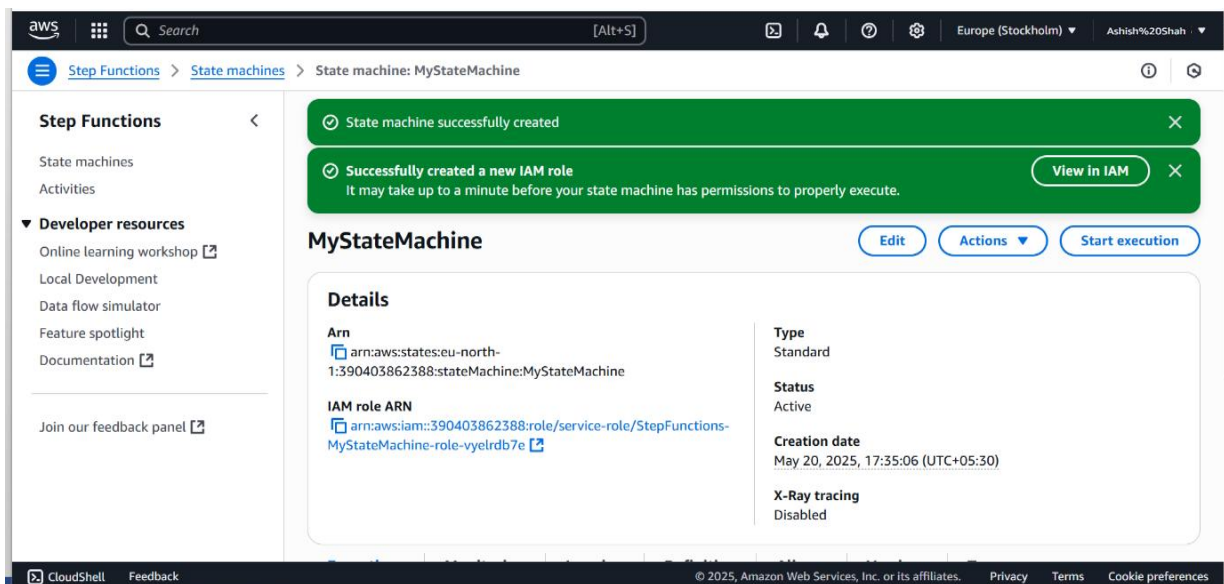


Explanation of Code: Above code checks the Marks and Subject Name from User's Input in JSON Format; States can be visually seen in the State Diagram next to code.

Step 7: In Confirm role creation click confirm.

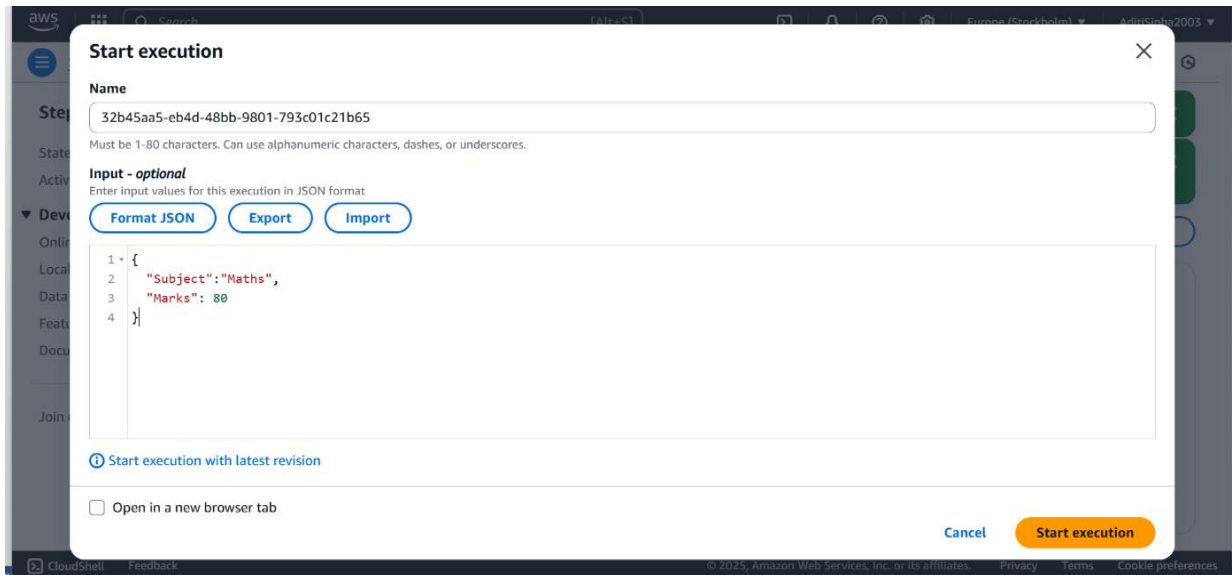


Step 8: State machine is now successfully created.

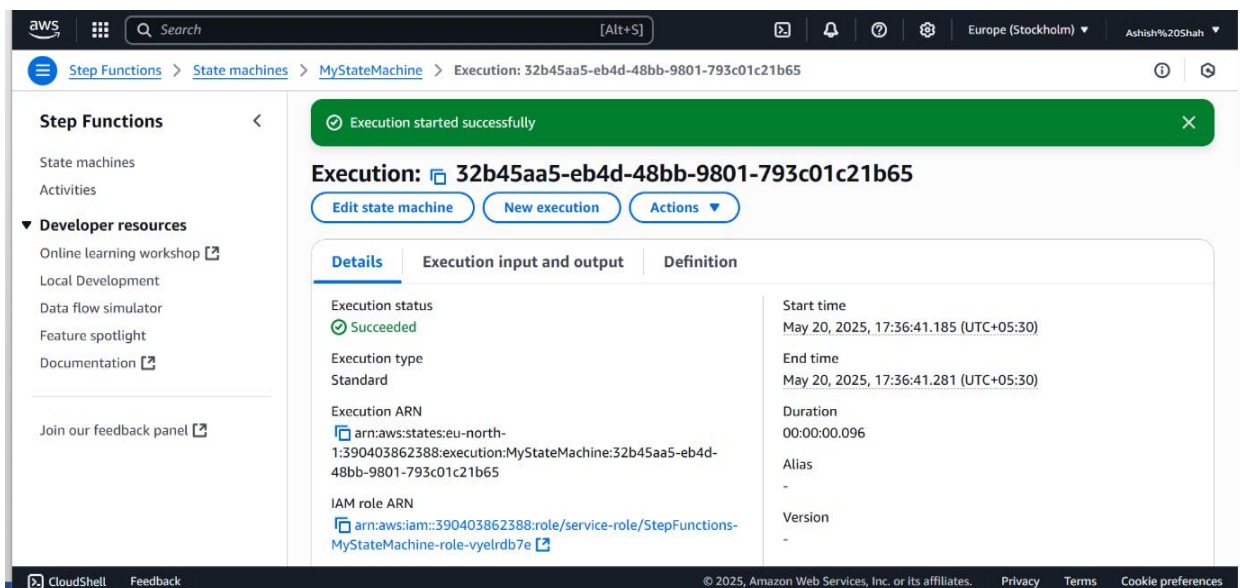


Steps for execution of your machine:

Step 1: In Start execution dialog box, provide input and click on Start execution.



Step 2: Execution is successfully started we can notice the flow of execution in Graph, Table and State view.



Graph View:

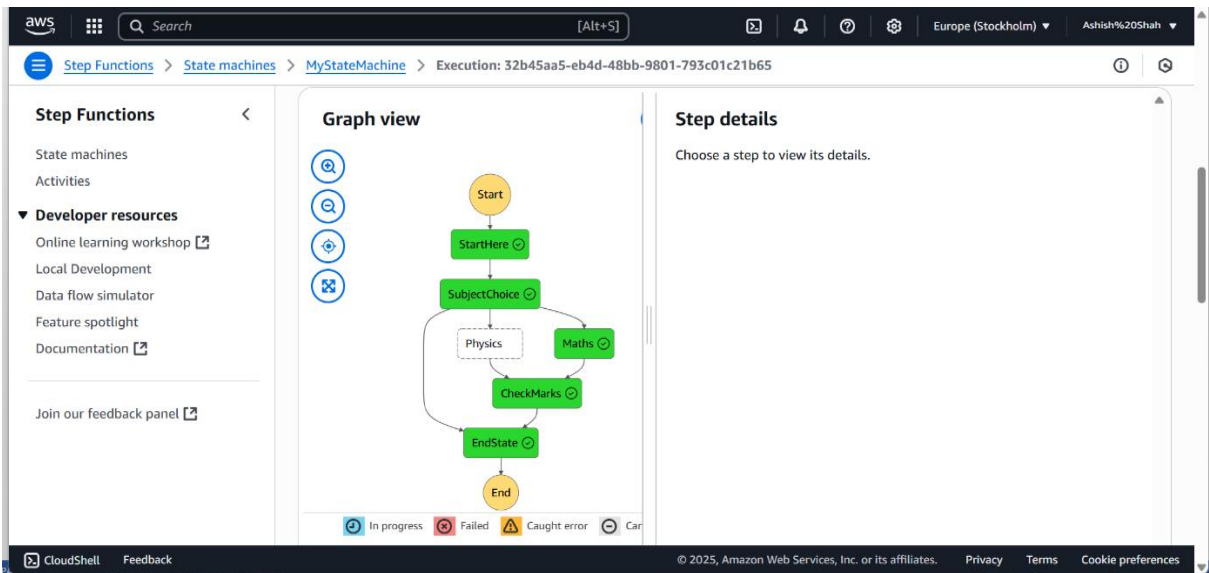
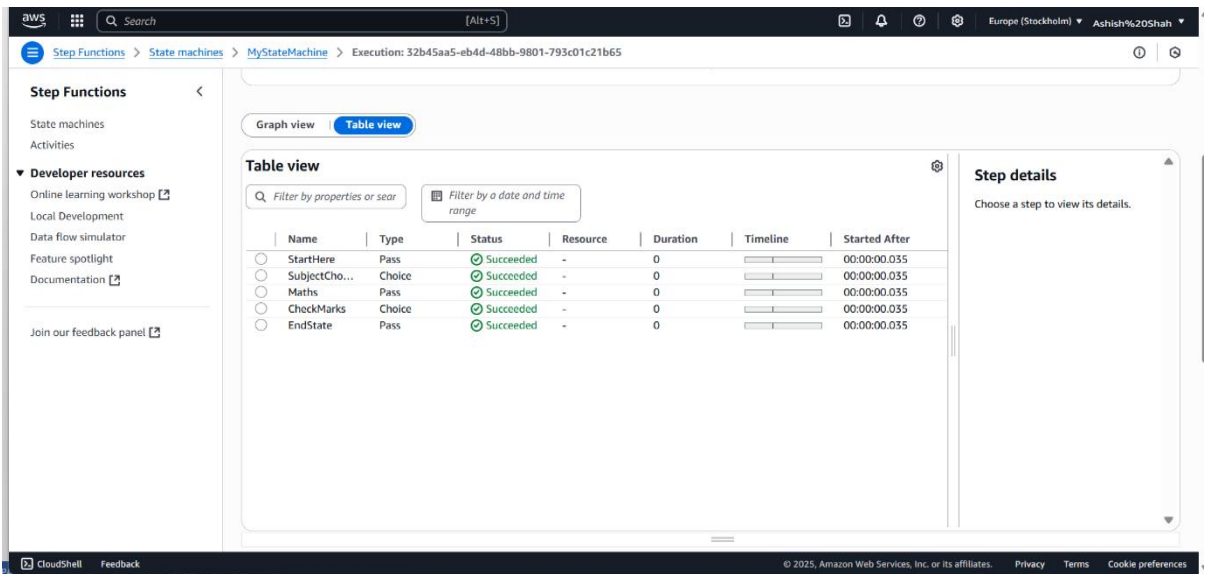


Table view:



Event View:

aws

Search

[Alt+S]

Europe (Stockholm)

Ashish%20Shah

Step Functions

State machines

MyStateMachine

Execution: 32b45aa5-eb4d-48bb-9801-793c01c21b65

Step Functions

State machines

Activities

Developer resources

Online learning workshop

Local Development

Data flow simulator

Feature spotlight

Documentation

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Events (12)

Filter by properties or search by key

Filter by a date and time range

ID	Type	Step	Resource	Started After	Timestamp
1	ExecutionStarted			0	May 20, 2025, 17:36:41.185 (UTC+05:30)
2	PassStateEntered	StartHere		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
3	PassStateExited	StartHere		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
4	ChoiceStateEntered	SubjectChoice		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
5	ChoiceStateExited	SubjectChoice		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
6	PassStateEntered	Maths		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
7	PassStateExited	Maths		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
8	ChoiceStateEntered	CheckMarks		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
9	ChoiceStateExited	CheckMarks		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
10	PassStateEntered	EndState		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
11	PassStateExited	EndState		00:00:00.035	May 20, 2025, 17:36:41.220 (UTC+05:30)
12	ExecutionSucceeded			00:00:00.096	May 20, 2025, 17:36:41.281 (UTC+05:30)

CloudShellFeedback

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State View:

aws

Search

[Alt+S]

Europe (Stockholm)

Ashish%20Shah

Step Functions

State machines

MyStateMachine

Execution: 32b45aa5-eb4d-48bb-9801-793c01c21b65

Step Functions

State machines

Activities

Developer resources

Online learning workshop

Local Development

Data flow simulator

Feature spotlight

Documentation

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Event view

State view

Table view

Filter by properties or search by keyword

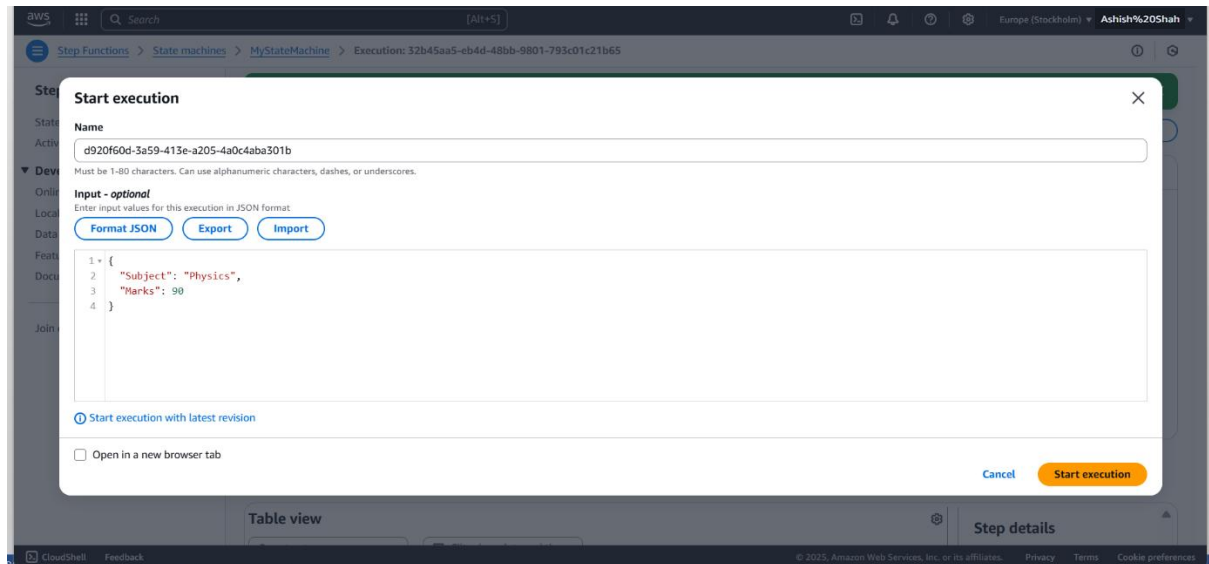
Filter by a date and time range

Name	Type	Status	Resource	Duration	Timeline	Started After
StartHere	Pass	Succeeded	-	0		00:00:00.035
SubjectC...	Choice	Succeeded	-	0		00:00:00.035
Maths	Pass	Succeeded	-	0		00:00:00.035
CheckMa...	Choice	Succeeded	-	0		00:00:00.035
EndState	Pass	Succeeded	-	0		00:00:00.035

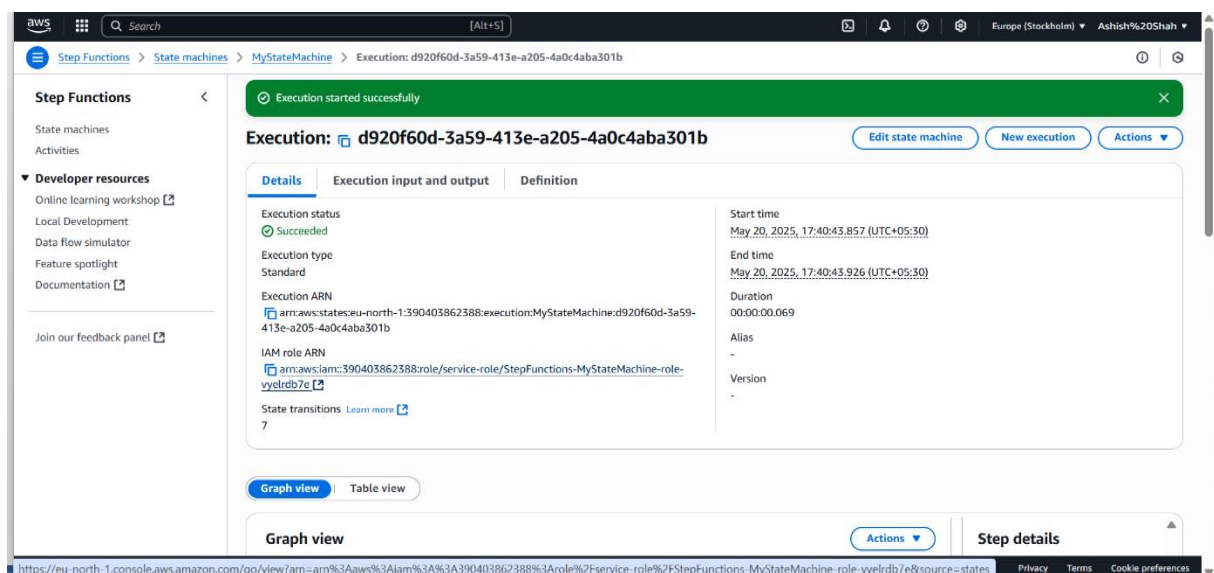
CloudShellFeedback

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Step 3: Start another execution by giving different input and click on Start execution.



Step 4: Execution is successfully started we can notice the flow of execution in Graph, Table and State view.



Graph View:

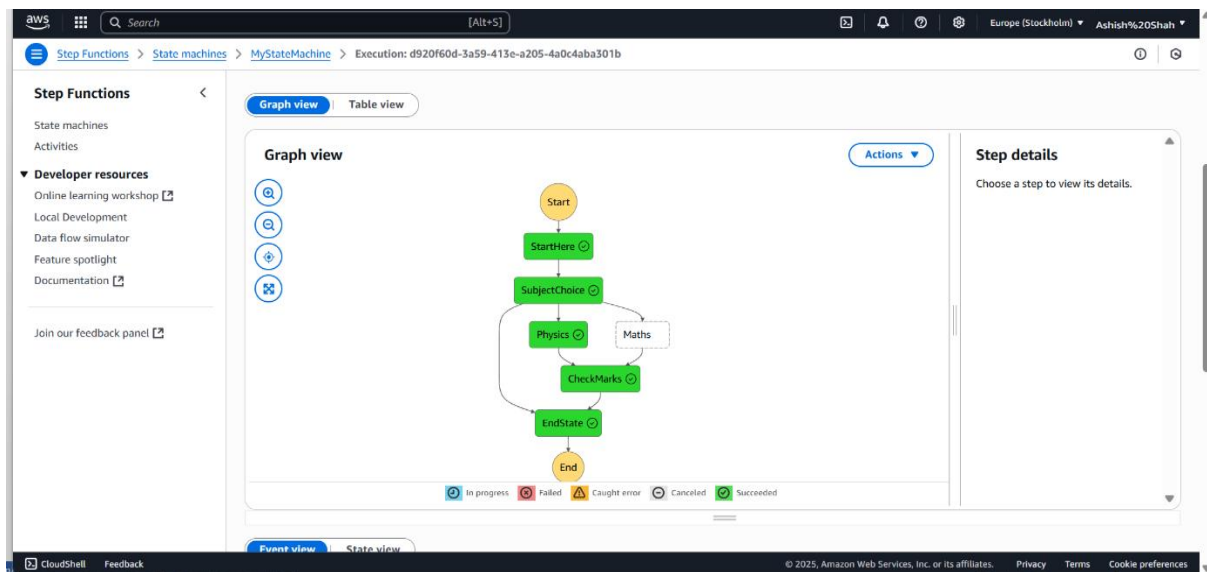
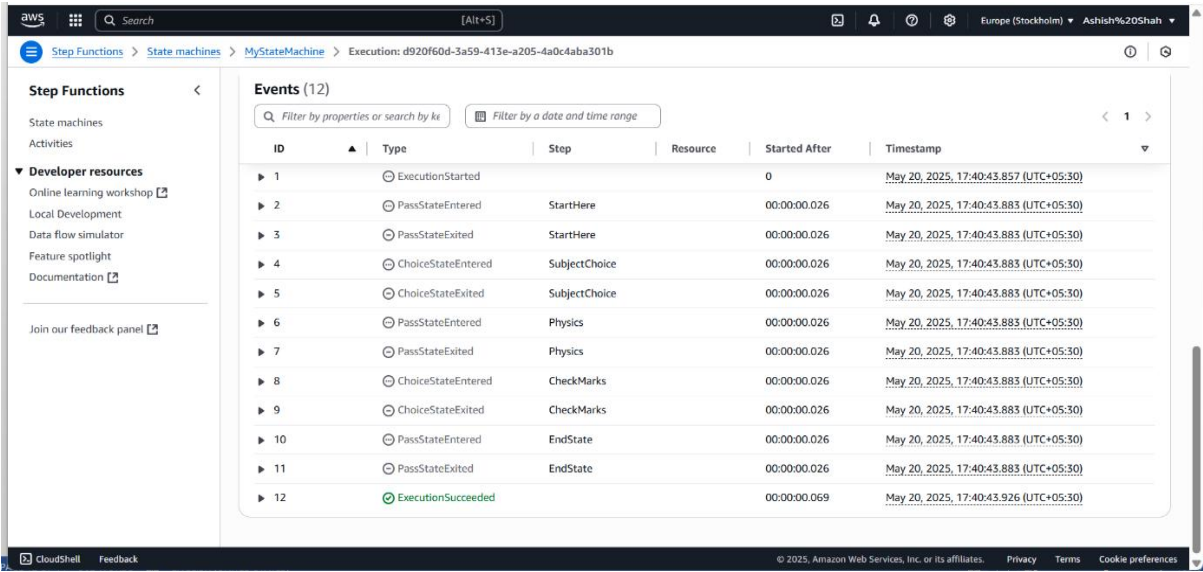


Table view:

The screenshot displays the AWS Step Functions console interface, showing the 'Table view' of the same state machine execution. The breadcrumb navigation is the same. The main area is titled 'Table view' and shows a table of execution steps. The table has columns for Name, Type, Status, Resource, Duration, Timeline, and Started After. All steps are marked as 'Succeeded'.

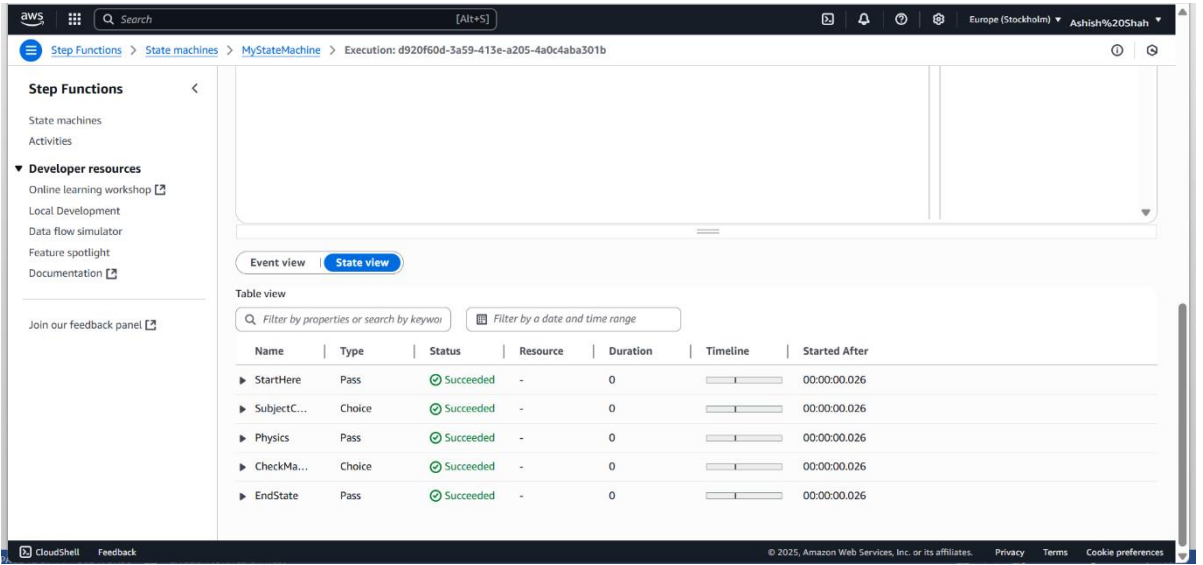
Name	Type	Status	Resource	Duration	Timeline	Started After
StartHere	Pass	Succeeded	-	0		00:00:00.026
SubjectCho...	Choice	Succeeded	-	0		00:00:00.026
Physics	Pass	Succeeded	-	0		00:00:00.026
CheckMarks	Choice	Succeeded	-	0		00:00:00.026
EndState	Pass	Succeeded	-	0		00:00:00.026

Event View:



ID	Type	Step	Resource	Started After	Timestamp
1	ExecutionStarted			0	May 20, 2025, 17:40:43.857 (UTC+05:30)
2	PassStateEntered	StartHere		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
3	PassStateExited	StartHere		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
4	ChoiceStateEntered	SubjectChoice		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
5	ChoiceStateExited	SubjectChoice		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
6	PassStateEntered	Physics		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
7	PassStateExited	Physics		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
8	ChoiceStateEntered	CheckMarks		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
9	ChoiceStateExited	CheckMarks		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
10	PassStateEntered	EndState		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
11	PassStateExited	EndState		00:00:00.026	May 20, 2025, 17:40:43.883 (UTC+05:30)
12	ExecutionSucceeded			00:00:00.069	May 20, 2025, 17:40:43.926 (UTC+05:30)

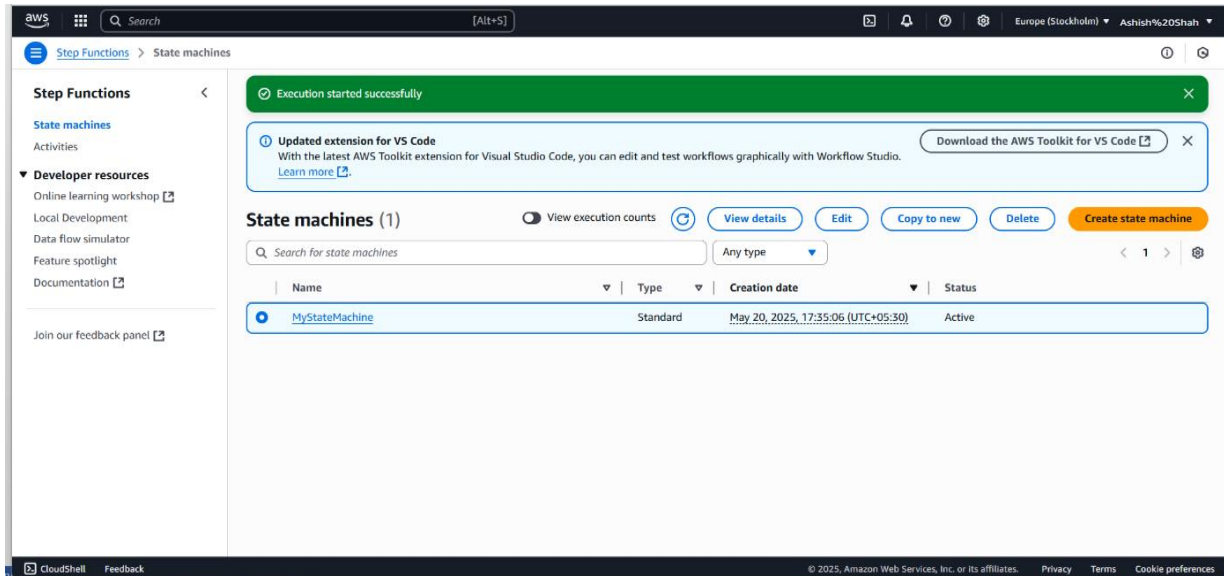
State View:



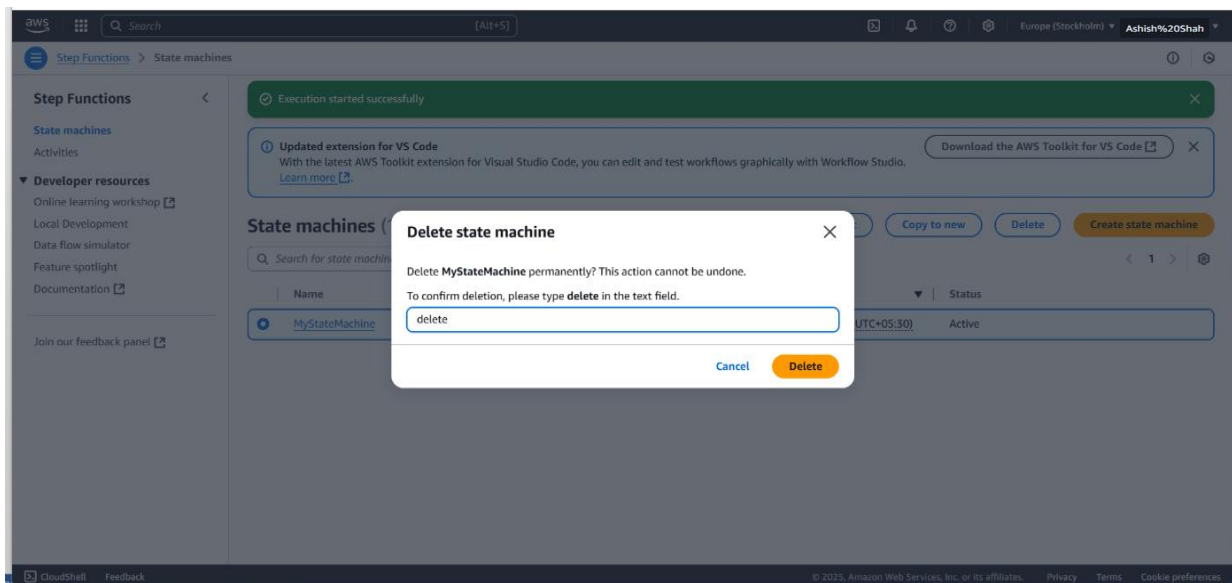
Name	Type	Status	Resource	Duration	Timeline	Started After
StartHere	Pass	Succeeded	-	0	<div></div>	00:00:00.026
SubjectC...	Choice	Succeeded	-	0	<div></div>	00:00:00.026
Physics	Pass	Succeeded	-	0	<div></div>	00:00:00.026
CheckMa...	Choice	Succeeded	-	0	<div></div>	00:00:00.026
EndState	Pass	Succeeded	-	0	<div></div>	00:00:00.026

Steps for deletion of Step Function:

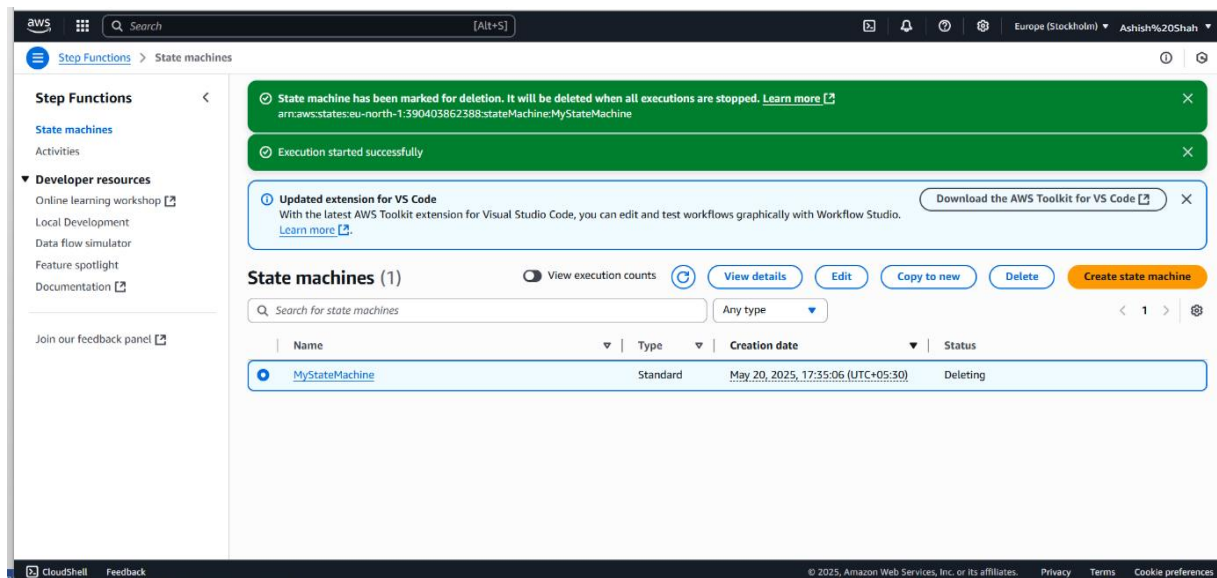
Step 1: Go to your state machine, click on Actions then Delete.



Step 2: In delete state machine dialog box type delete and click on Delete.



Step 3: Successful Deletion notification is displayed.



We can now log out from our AWS Account.