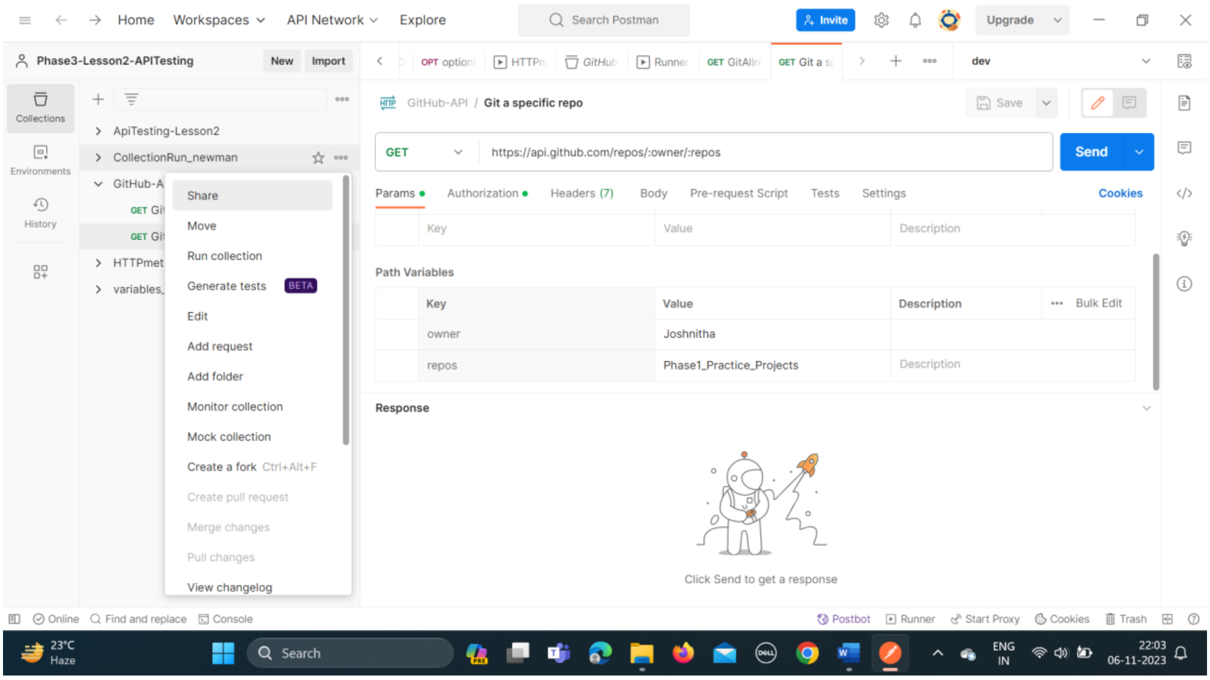
Phase3-Practice Project: Assisted Practice

Postman:

1. Demonstrate how to run a collection remotely with URL.

Create a workspace ,add collection and create request

Click on share.



Phase3-Lesson2-APITesting

GitHub-API / Git a specific repo

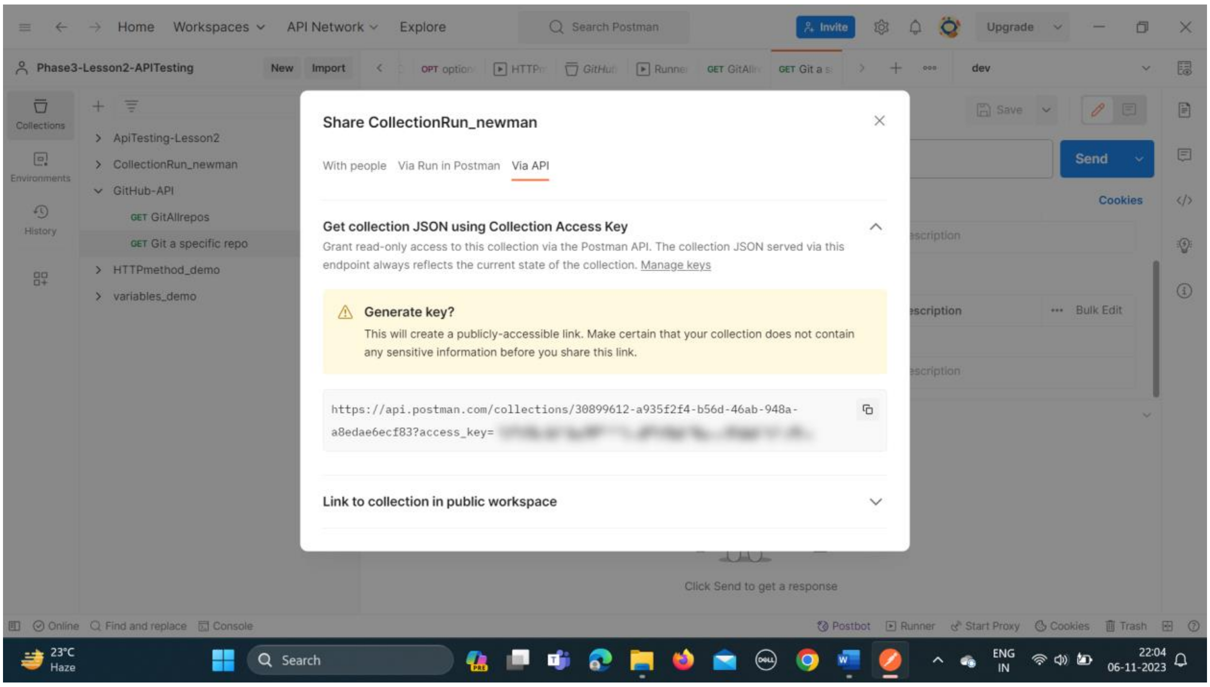
GET https://api.github.com/repos/:owner/:repos

Path Variables

Key	Value	Description
owner	Joshnitha	
repos	Phase1_Practice_Projects	Description

Then click on via API.

Click on Generate new key and copy the URL



Share CollectionRun_newman

With people Via Run in Postman Via API

Get collection JSON using Collection Access Key

Grant read-only access to this collection via the Postman API. The collection JSON served via this endpoint always reflects the current state of the collection. Manage keys

Generate key?

This will create a publicly-accessible link. Make certain that your collection does not contain any sensitive information before you share this link.

```
https://api.postman.com/collections/30899612-a935f2f4-b56d-46ab-948a-
a8edae6ecf83?access_key=[redacted]
```

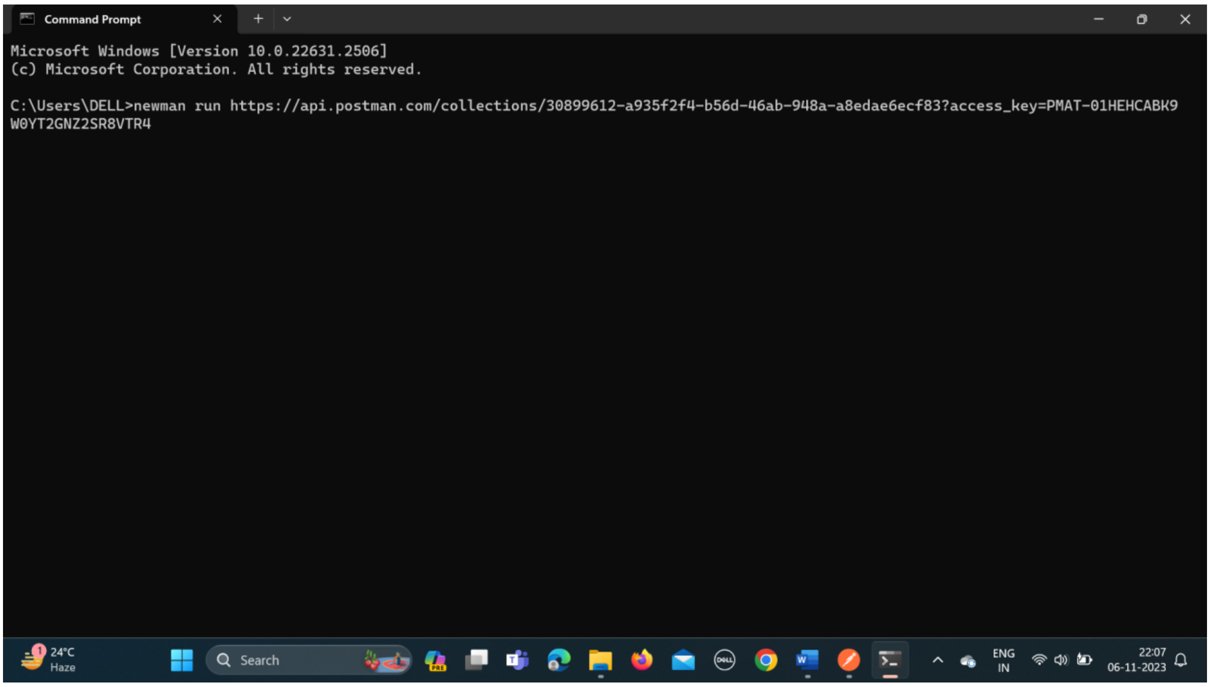
Link to collection in public workspace

Carefully copy the URL.

https://api.postman.com/collections/30899612-a935f2f4-b56d-46ab-948a-a8edae6ecf83?access_key=PMAT-01HEHCABK9W0YT2GNZ2SR8VTR4

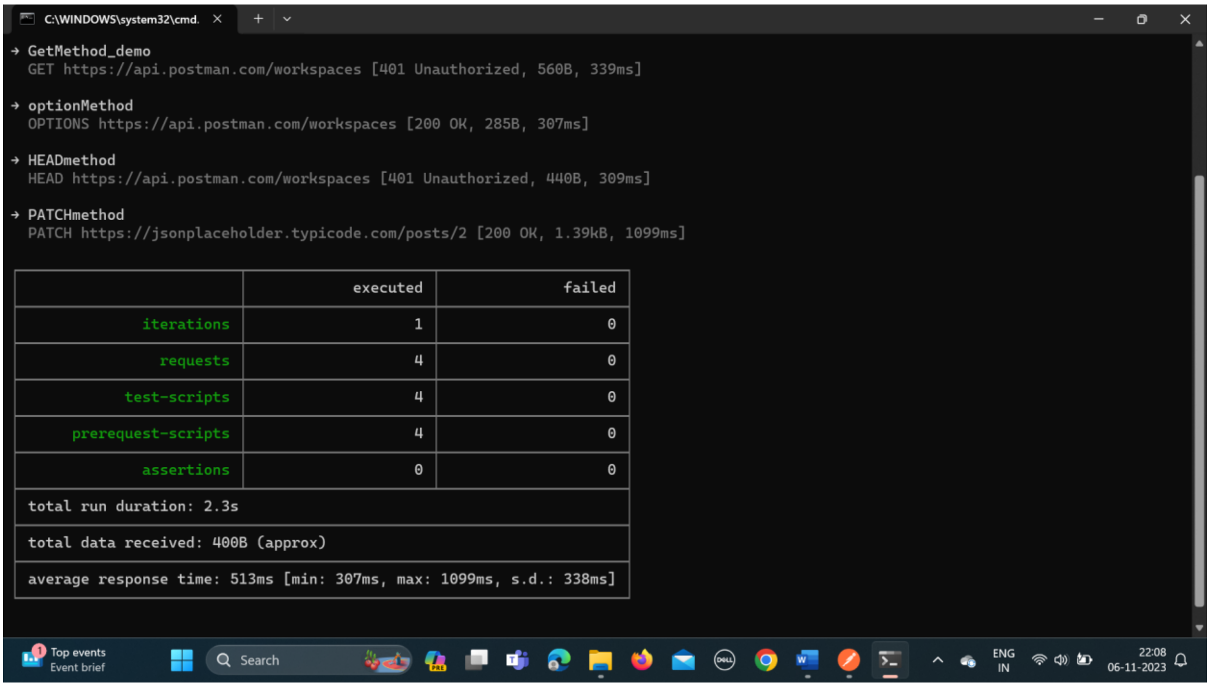
Now go to cmd prompt of windows and execute the newman command

# newman run <Copied URL>



```
Microsoft Windows [Version 10.0.22631.2506]
(c) Microsoft Corporation. All rights reserved.

C:\Users\DELL>newman run https://api.postman.com/collections/30899612-a935f2f4-b56d-46ab-948a-a8edae6ecf83?access_key=PMAT-01HEHCABK9
W0YT2GNZ2SR8VTR4
```

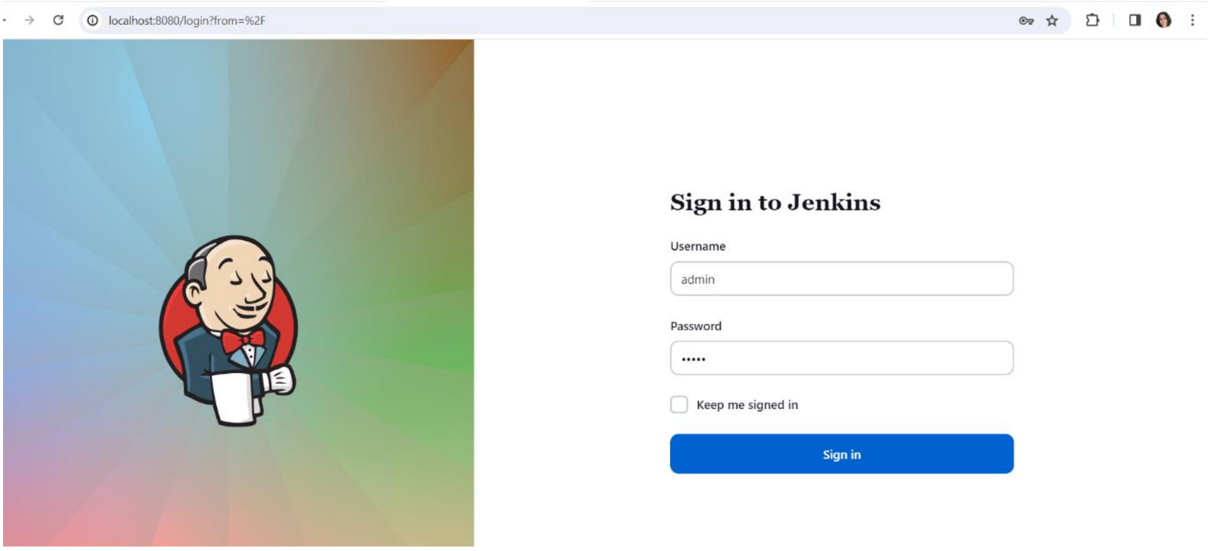
It will run the collection successfully.



```
→ GetMethod_demo
  GET https://api.postman.com/workspaces [401 Unauthorized, 560B, 339ms]

→ optionMethod
  OPTIONS https://api.postman.com/workspaces [200 OK, 285B, 307ms]

→ HEADmethod
  HEAD https://api.postman.com/workspaces [401 Unauthorized, 440B, 309ms]

→ PATCHmethod
  PATCH https://jsonplaceholder.typicode.com/posts/2 [200 OK, 1.39kB, 1099ms]

┌─────────────────────────┬──────────────────────┬──────────────────────┐
│                         │             executed │               failed │
├─────────────────────────┼──────────────────────┼──────────────────────┤
│              iterations │                    1 │                    0 │
├─────────────────────────┼──────────────────────┼──────────────────────┤
│                requests │                    4 │                    0 │
├─────────────────────────┼──────────────────────┼──────────────────────┤
│            test-scripts │                    4 │                    0 │
├─────────────────────────┼──────────────────────┼──────────────────────┤
│      prerequest-scripts │                    4 │                    0 │
├─────────────────────────┼──────────────────────┼──────────────────────┤
│              assertions │                    0 │                    0 │
├─────────────────────────┴──────────────────────┴──────────────────────┤
│ total run duration: 2.3s                                              │
├───────────────────────────────────────────────────────────────────────┤
│ total data received: 400B (approx)                                    │
├───────────────────────────────────────────────────────────────────────┤
│ average response time: 513ms [min: 307ms, max: 1099ms, s.d.: 338ms]   │
└───────────────────────────────────────────────────────────────────────┘
```

2. Demonstrate how postman is used with Jenkins.

Run collection with Jenkins using CLI



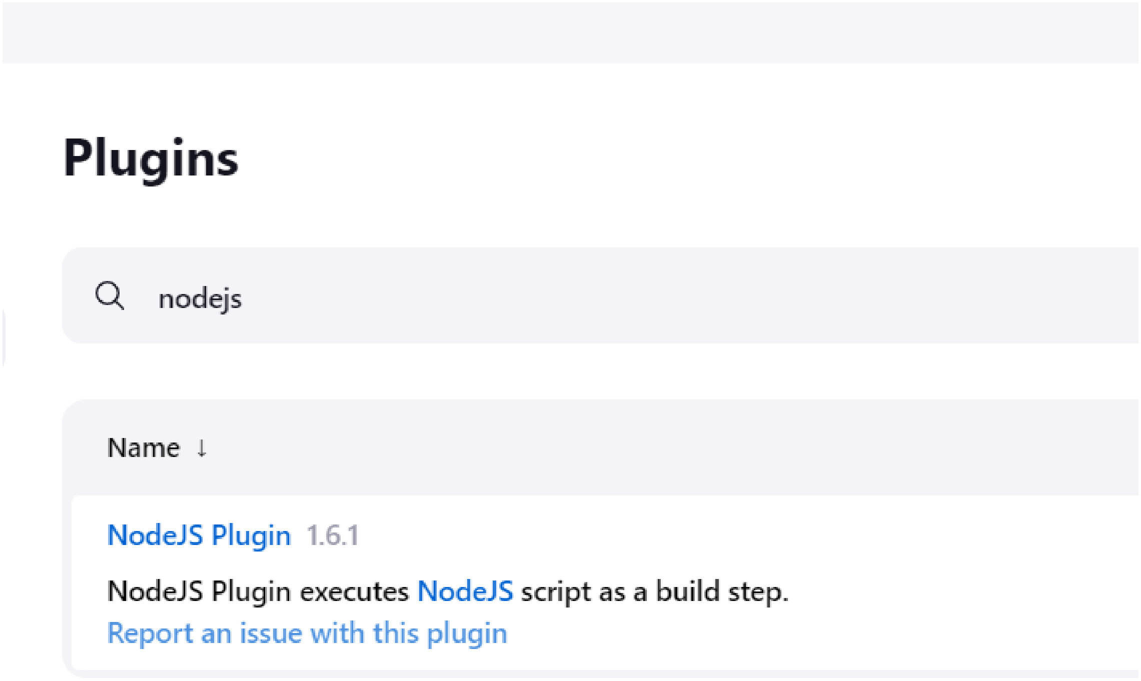
Sign in to Jenkins

Username: admin

Password: •••••

☐ Keep me signed in

Download nodejs plugin in Jenkins



Plugins

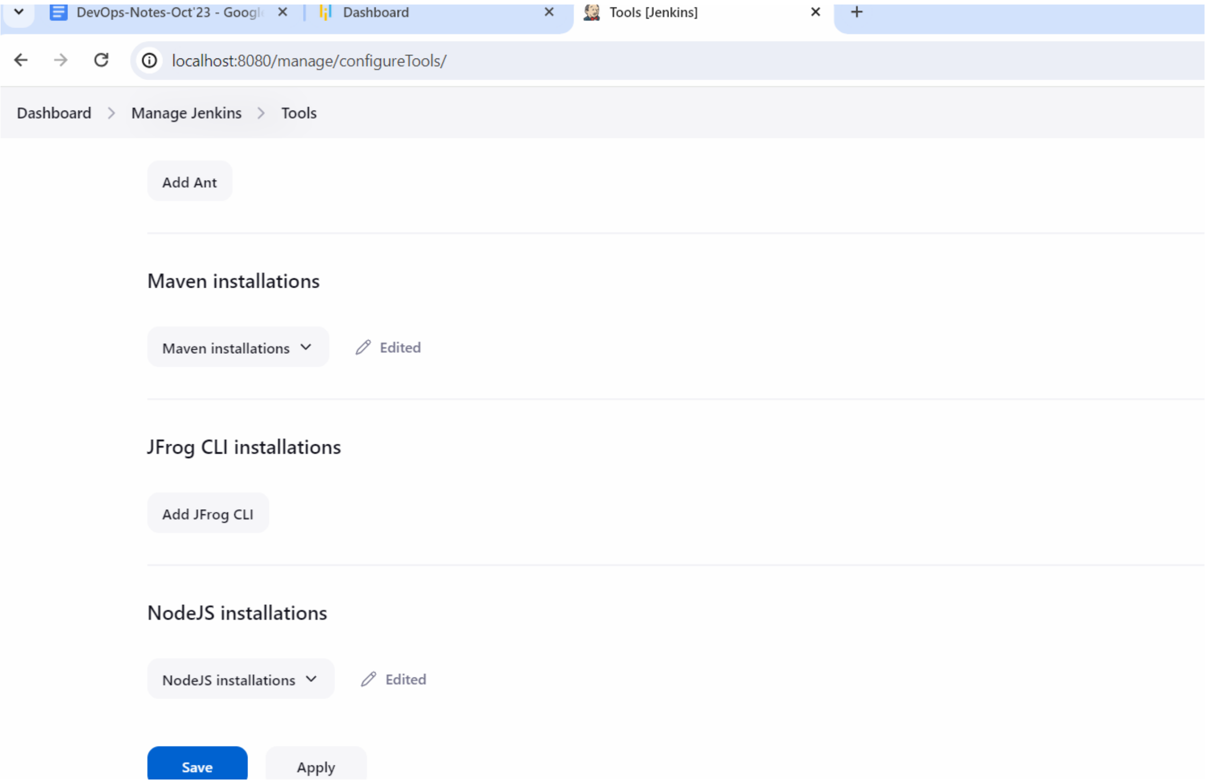
nodejs

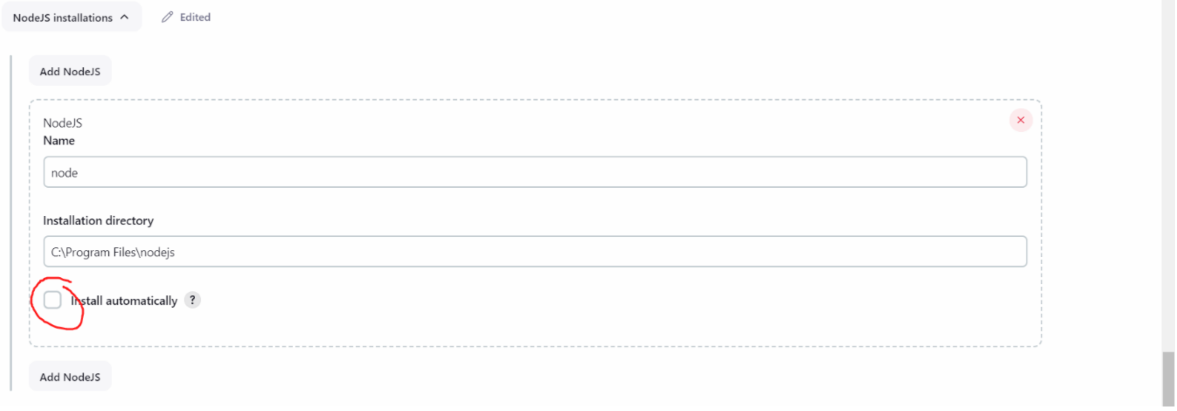
Name ↓

NodeJS Plugin 1.6.1

NodeJS Plugin executes NodeJS script as a build step.

Report an issue with this plugin





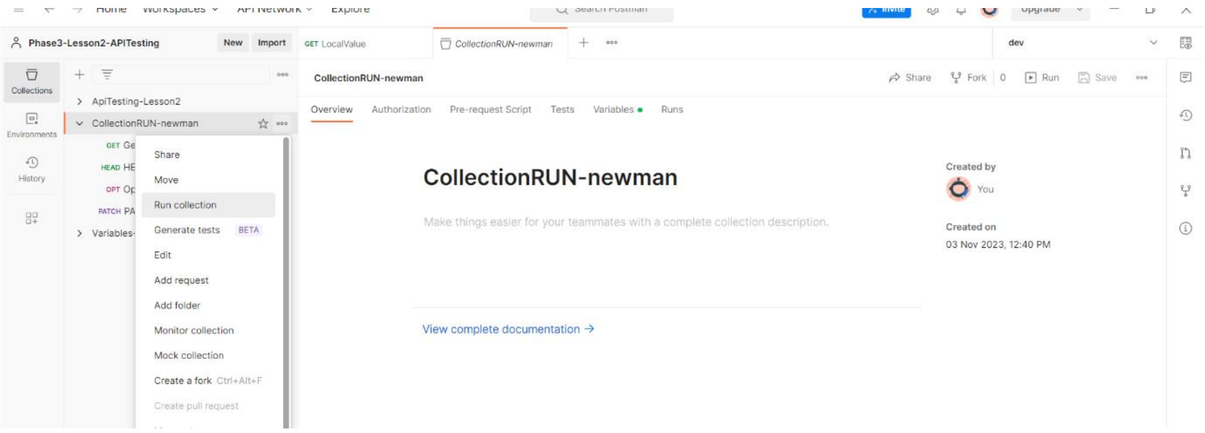
NodeJS

Name: node

Installation directory: C:\Program Files\nodejs

□ Install automatically

Now go to collection runner



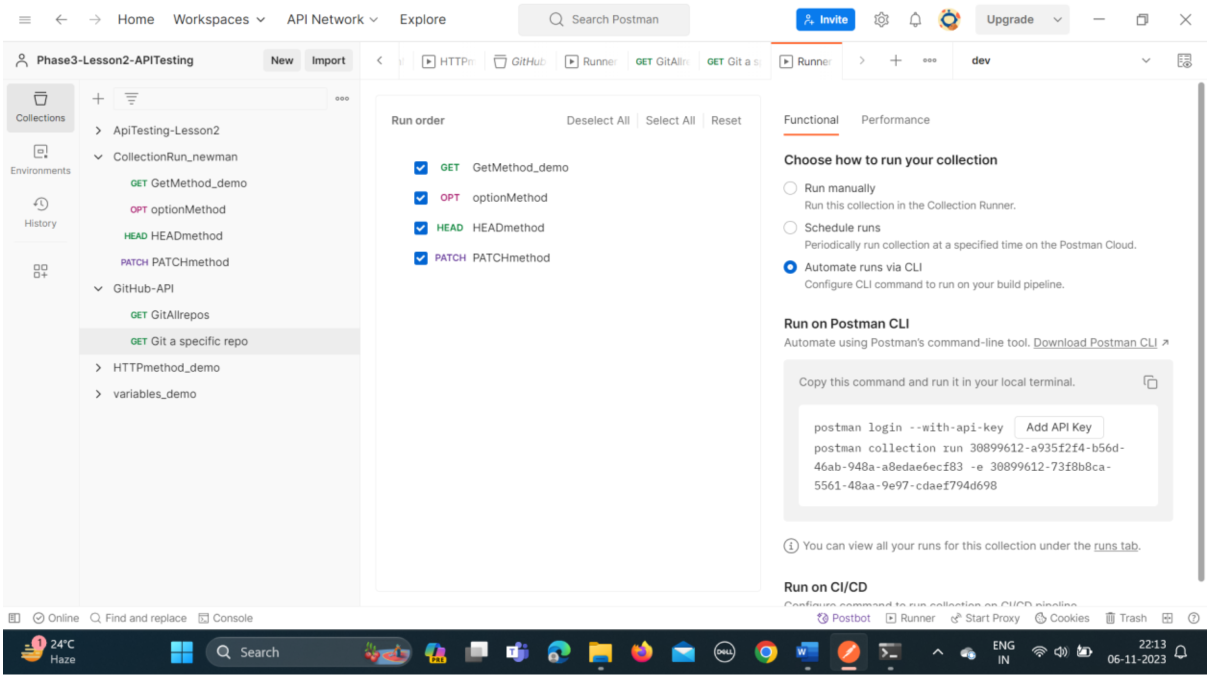
CollectionRUN-newman

Make things easier for your teammates with a complete collection description.

Created by
You

Created on
03 Nov 2023, 12:40 PM

Click on Automate runs via CLI.



Run order

☑ GET GetMethod_demo
☑ OPT optionMethod
☑ HEAD HEADmethod
☑ PATCH PATCHmethod

Choose how to run your collection

○ Run manually
Run this collection in the Collection Runner.
○ Schedule runs
Periodically run collection at a specified time on the Postman Cloud.
● Automate runs via CLI
Configure CLI command to run on your build pipeline.

Run on Postman CLI
Automate using Postman's command-line tool. Download Postman CLI ↗

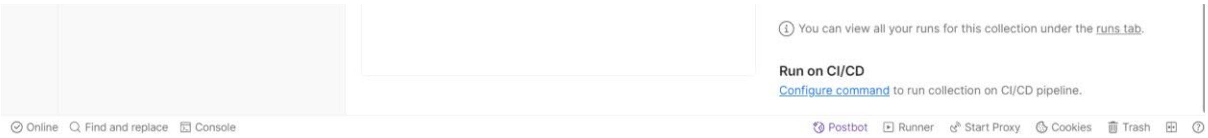
Copy this command and run it in your local terminal.

```
postman login --with-api-key  Add API Key
postman collection run 30899612-a935f2f4-b56d-
46ab-948a-a8edae6ecf83 -e 30899612-73f8b8ca-
5561-48aa-9e97-cdaef794d698
```

You can view all your runs for this collection under the runs tab.

Run on CI/CD

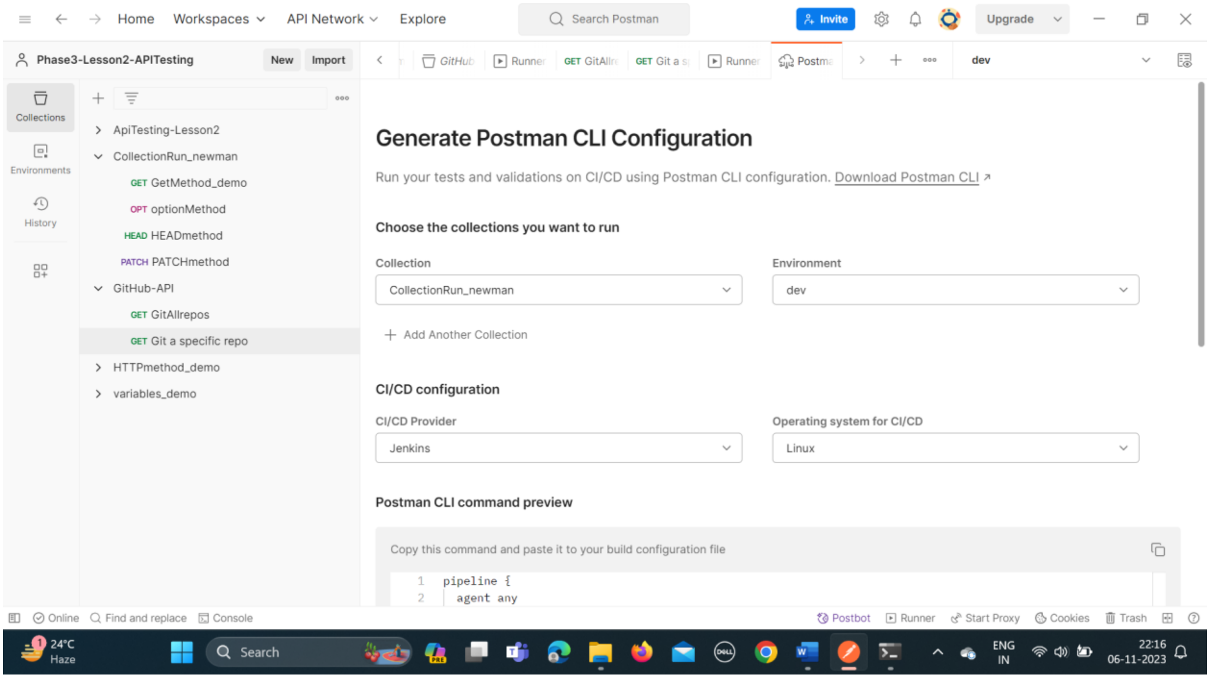
Click on configure command



You can view all your runs for this collection under the runs tab.

Run on CI/CD
Configure command to run collection on CI/CD pipeline.

Then add all collection, Environment, CI/CD provider , operating system for CI/CD.



Generate Postman CLI Configuration

Run your tests and validations on CI/CD using Postman CLI configuration. Download Postman CLI ↗

Choose the collections you want to run

Collection: CollectionRun_newman

Environment: dev

+ Add Another Collection

CI/CD configuration

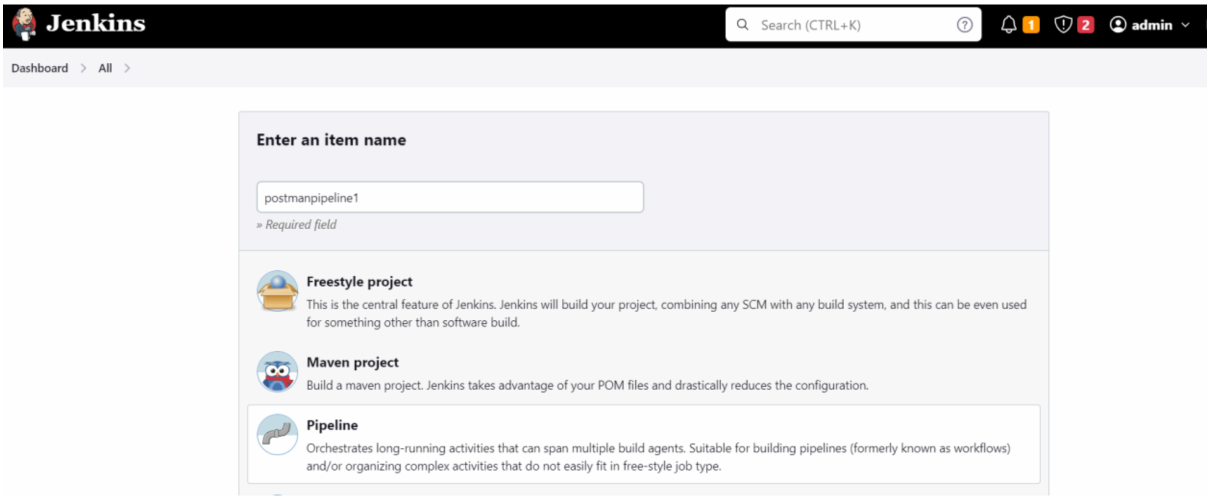
CI/CD Provider: Jenkins

Operating system for CI/CD: Linux

Postman CLI command preview

Copy this command and paste it to your build configuration file

```
pipeline {
  agent any
```



Enter an item name

postmanpipeline1

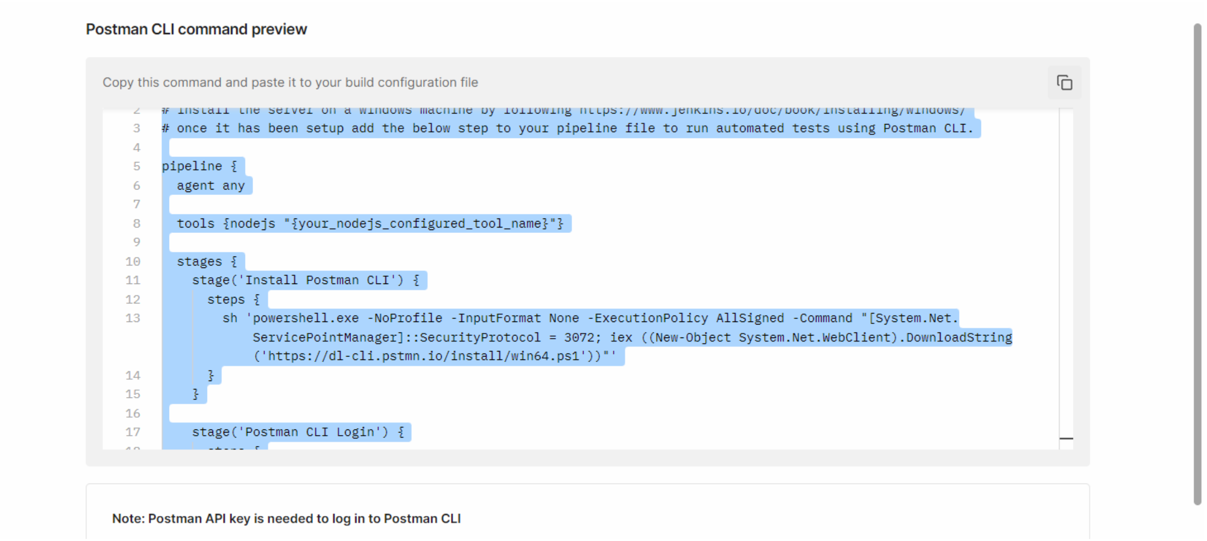
» Required field

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

Maven project
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

Now copy the entire script form postman



Postman CLI command preview

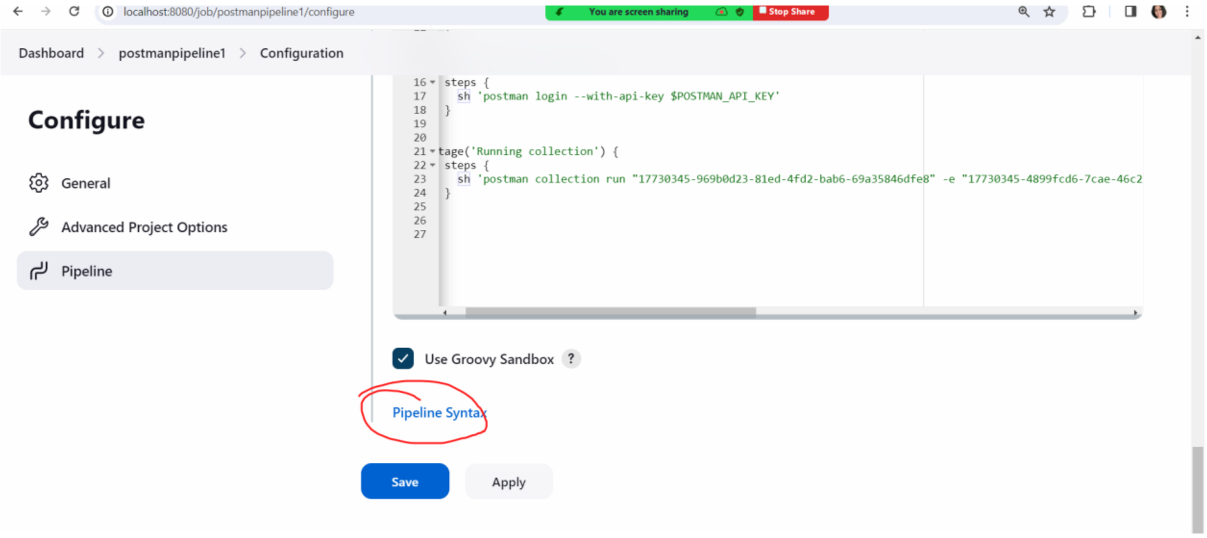
Copy this command and paste it to your build configuration file

```
# install the server on a windows machine by following https://www.jenkins.io/doc/book/installing/windows/
# once it has been setup add the below step to your pipeline file to run automated tests using Postman CLI.

pipeline {
  agent any

  tools {nodejs "{your_nodejs_configured_tool_name}"}

  stages {
    stage('Install Postman CLI') {
      steps {
        sh 'powershell.exe -NoProfile -InputFormat None -ExecutionPolicy AllSigned -Command "[System.Net.
            ServicePointManager]::SecurityProtocol = 3072; iex ((New-Object System.Net.WebClient).DownloadString
            ('https://dl-cli.pstmn.io/install/win64.ps1'))"'
      }
    }

    stage('Postman CLI Login') {
```

Note: Postman API key is needed to log in to Postman CLI

Copy this pipeline in Jenkins Job

Click on Pipeline syntax

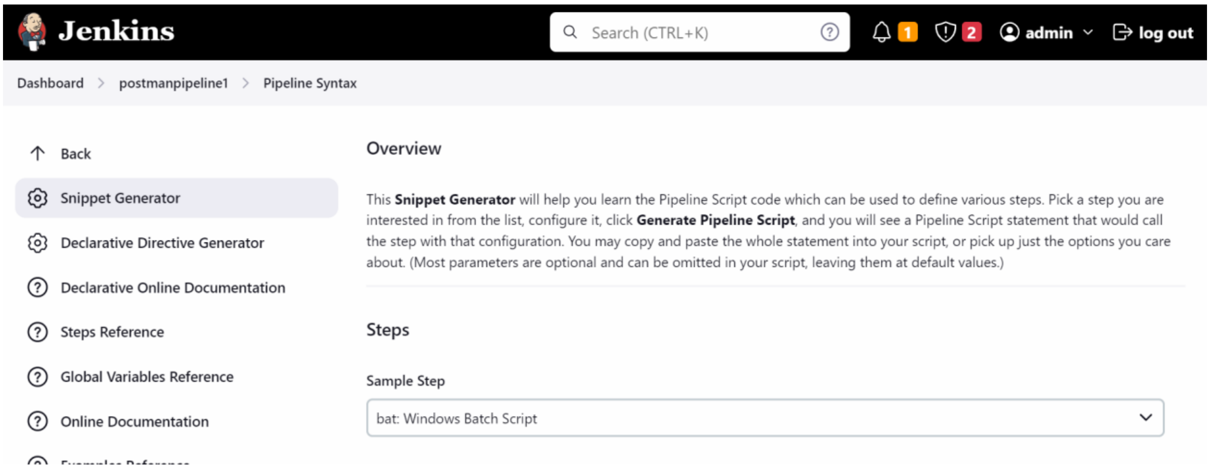


localhost:8080/job/postmanpipeline1/configure
You are screen sharing
Stop Share
Dashboard > postmanpipeline1 > Configuration
Configure
General
Advanced Project Options
Pipeline

```
 steps {
   sh 'postman login --with-api-key $POSTMAN_API_KEY'
 }


tage('Running collection') {
 steps {
   sh 'postman collection run "17730345-969b0d23-81ed-4fd2-bab6-69a35846dfe8" -e "17730345-4899fcd6-7cae-46c2
 }
```

☑ Use Groovy Sandbox

Here select windows batch script

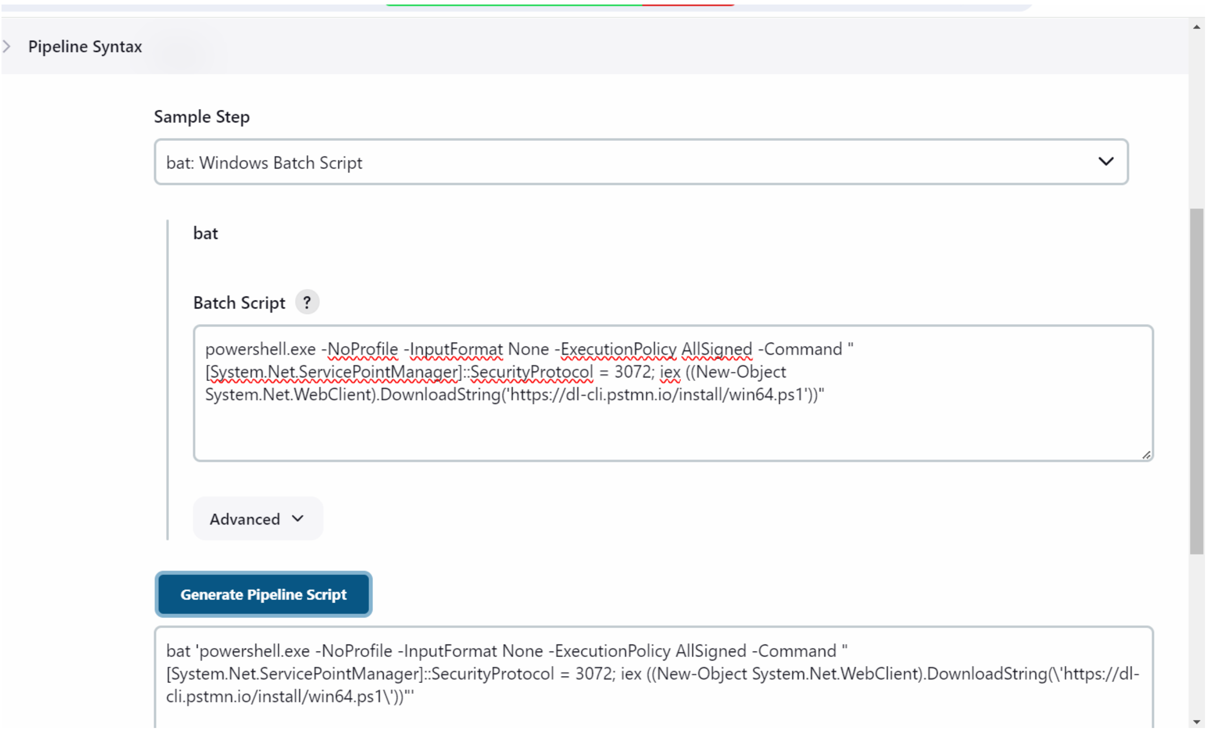

Jenkins
Search (CTRL+K)
admin
log out
Dashboard > postmanpipeline1 > Pipeline Syntax
Back
Snippet Generator
Declarative Directive Generator
Declarative Online Documentation
Steps Reference
Global Variables Reference
Online Documentation

Overview

This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps. Pick a step you are interested in from the list, configure it, click **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that configuration. You may copy and paste the whole statement into your script, or pick up just the options you care about. (Most parameters are optional and can be omitted in your script, leaving them at default values.)

Steps

Sample Step: bat: Windows Batch Script



Sample Step: bat: Windows Batch Script

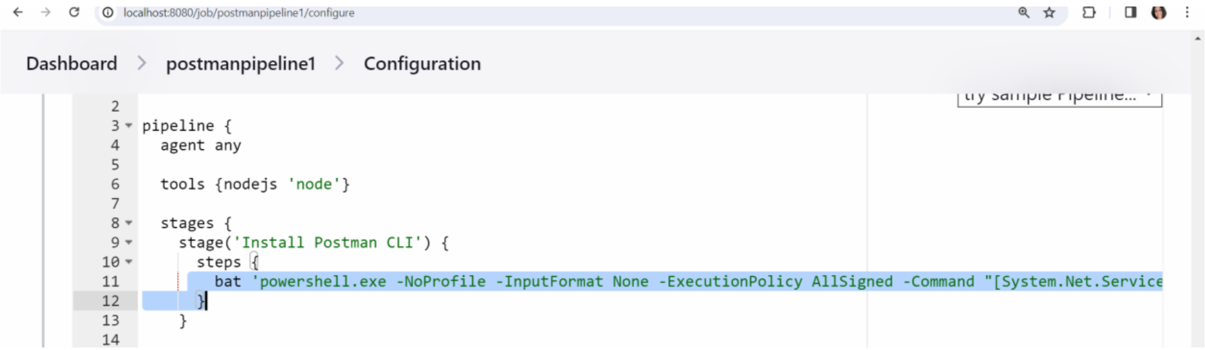
bat

Batch Script

```
powershell.exe -NoProfile -InputFormat None -ExecutionPolicy AllSigned -Command "
[System.Net.ServicePointManager]::SecurityProtocol = 3072; iex ((New-Object
System.Net.WebClient).DownloadString('https://dl-cli.pstmn.io/install/win64.ps1'))"
```

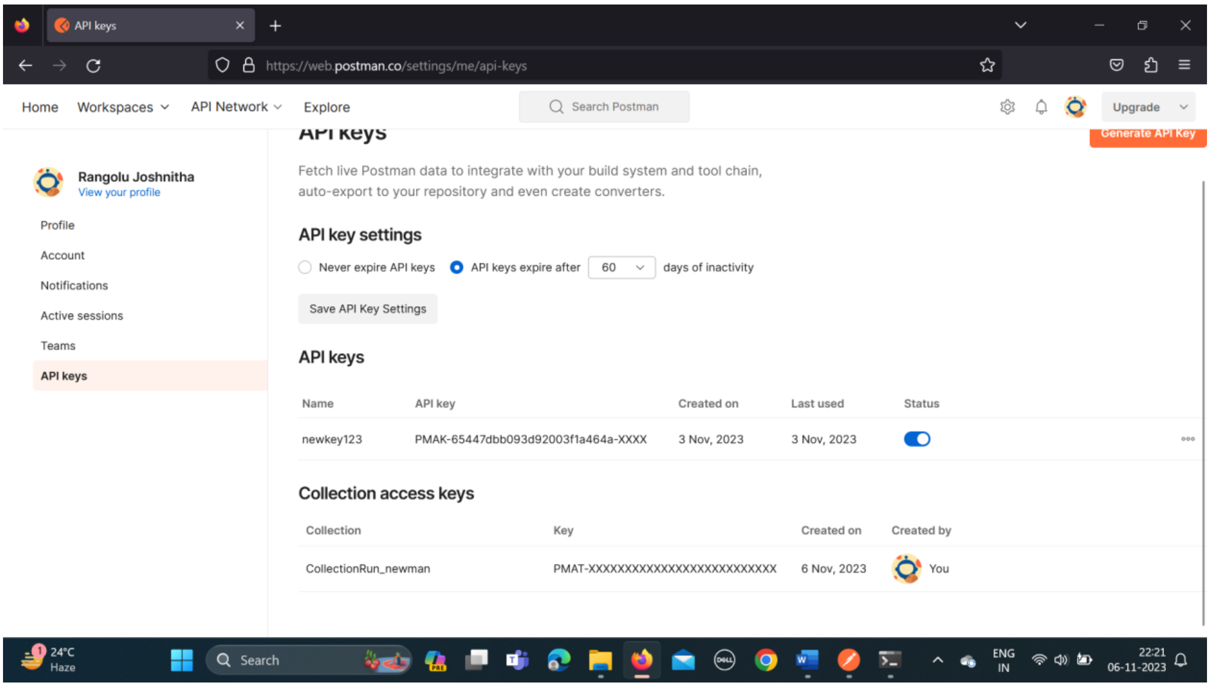
```
bat 'powershell.exe -NoProfile -InputFormat None -ExecutionPolicy AllSigned -Command "
[System.Net.ServicePointManager]::SecurityProtocol = 3072; iex ((New-Object System.Net.WebClient).DownloadString(\'https://dl-
cli.pstmn.io/install/win64.ps1\'))"'
```

Now go to jenkisn job.. remove the sh command in first stage and add the bta command


localhost:8080/job/postmanpipeline1/configure
Dashboard > postmanpipeline1 > Configuration
try sample Pipeline...

```

pipeline {
  agent any

  tools {nodejs 'node'}

  stages {
    stage('Install Postman CLI') {
      steps {
        bat 'powershell.exe -NoProfile -InputFormat None -ExecutionPolicy AllSigned -Command "[System.Net.Service
      }
    }

```

Get the api key from postman



API keys

Fetch live Postman data to integrate with your build system and tool chain, auto-export to your repository and even create converters.

API key settings

○ Never expire API keys ● API keys expire after 60 days of inactivity

Save API Key Settings

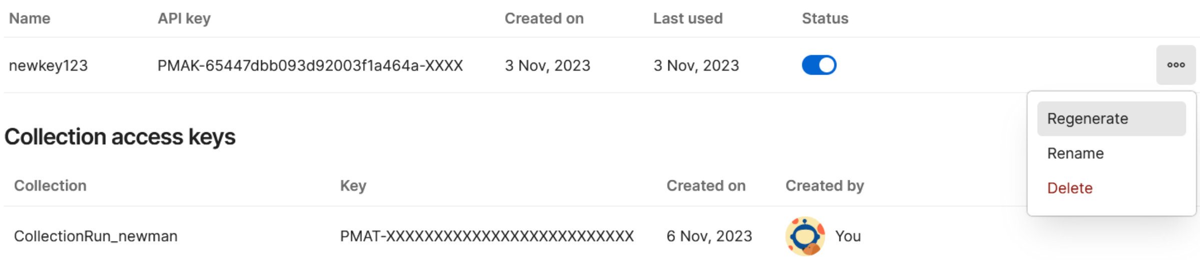
API keys

Name	API key	Created on	Last used	Status
newkey123	PMAK-65447dbb093d92003f1a464a-XXXX	3 Nov, 2023	3 Nov, 2023	●

Collection access keys

Collection	Key	Created on	Created by
CollectionRun_newman	PMAT-XXXXXXXXXXXXXXXXXXXXXXXXXX	6 Nov, 2023	You

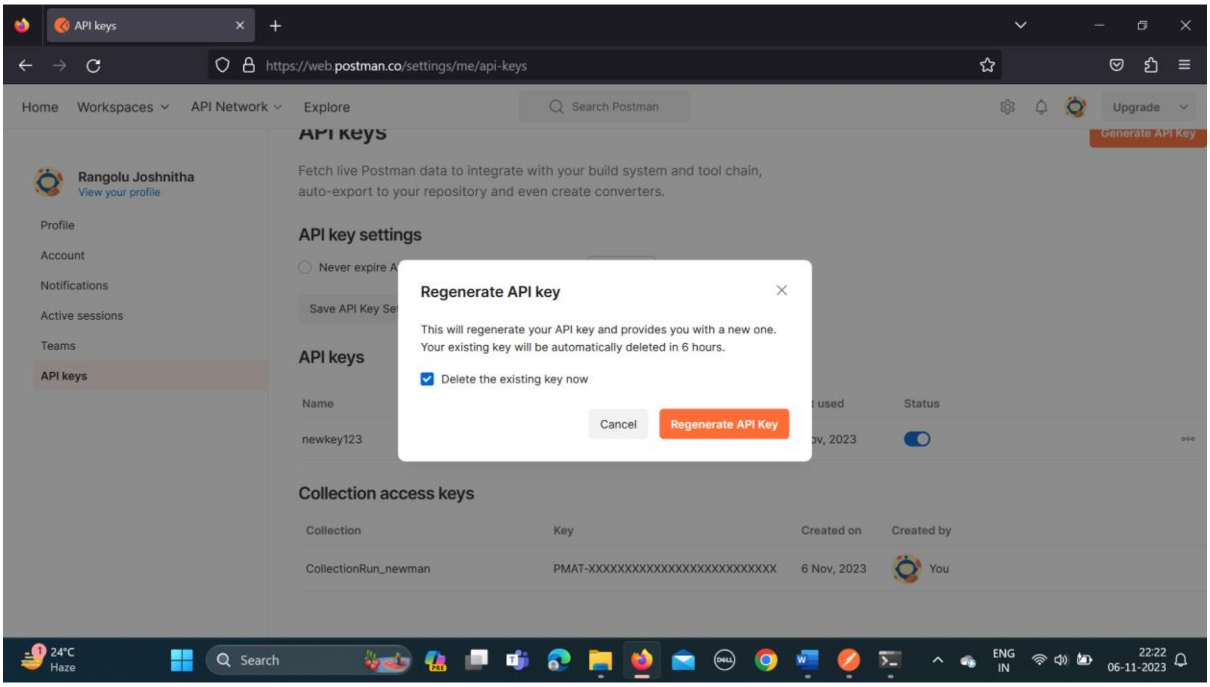
Click on regenerate.



Name	API key	Created on	Last used	Status
newkey123	PMAK-65447dbb093d92003f1a464a-XXXX	3 Nov, 2023	3 Nov, 2023	●

Collection access keys

Collection	Key	Created on	Created by
CollectionRun_newman	PMAT-XXXXXXXXXXXXXXXXXXXXXXXXXX	6 Nov, 2023	You



API keys

Fetch live Postman data to integrate with your build system and tool chain, auto-export to your repository and even create converters.

API key settings

○ Never expire A

Save API Key Se

API keys

Name		Last used	Status
newkey123		ov, 2023	●

Regenerate API key

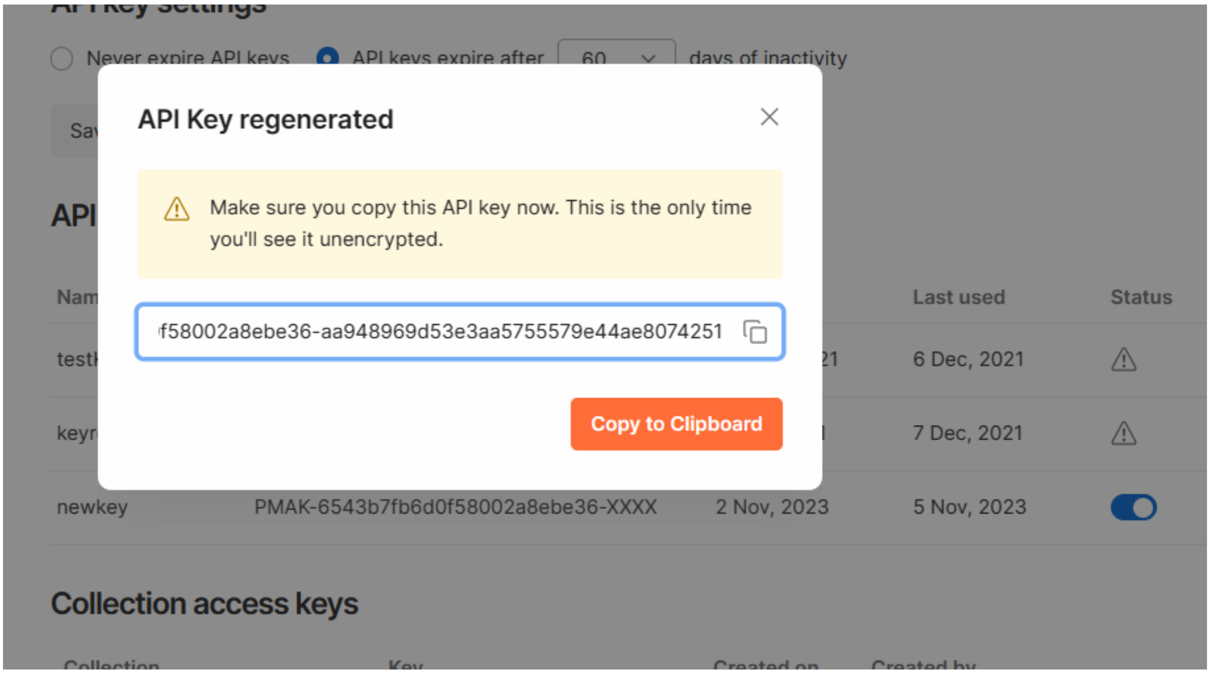
This will regenerate your API key and provides you with a new one. Your existing key will be automatically deleted in 6 hours.

☑ Delete the existing key now

Cancel | Regenerate API Key

Collection access keys

Collection	Key	Created on	Created by
CollectionRun_newman	PMAT-XXXXXXXXXXXXXXXXXXXXXXXXXXX	6 Nov, 2023	You



API Key settings

○ Never expire API keys ● API keys expire after 60 days of inactivity

API Key regenerated

⚠ Make sure you copy this API key now. This is the only time you'll see it unencrypted.

f58002a8ebe36-aa948969d53e3aa5755579e44ae8074251

Copy to Clipboard

Name			Last used	Status
testl		21	6 Dec, 2021	⚠
keyr			7 Dec, 2021	⚠
newkey	PMAK-6543b7fb6d0f58002a8ebe36-XXXX	2 Nov, 2023	5 Nov, 2023	●

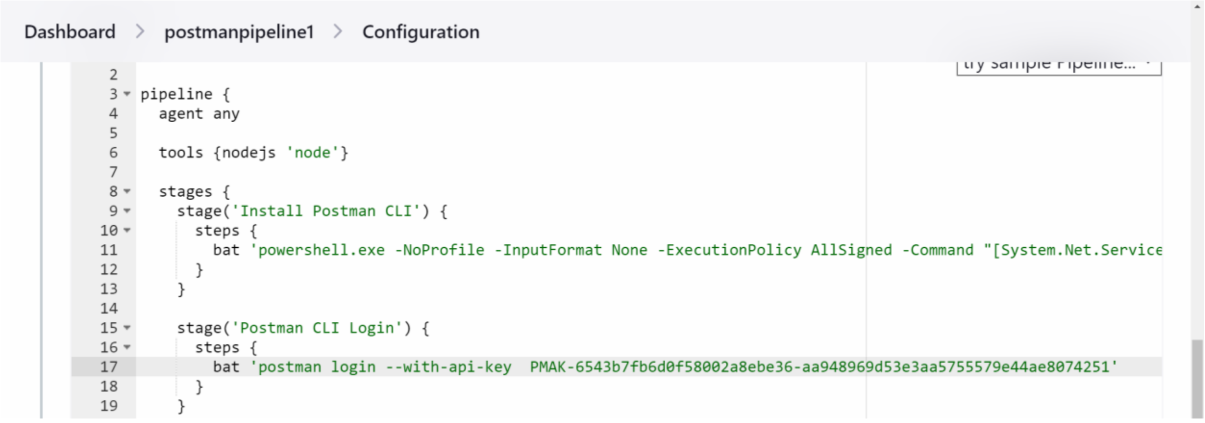
Collection access keys

Collection Key Created on Created by

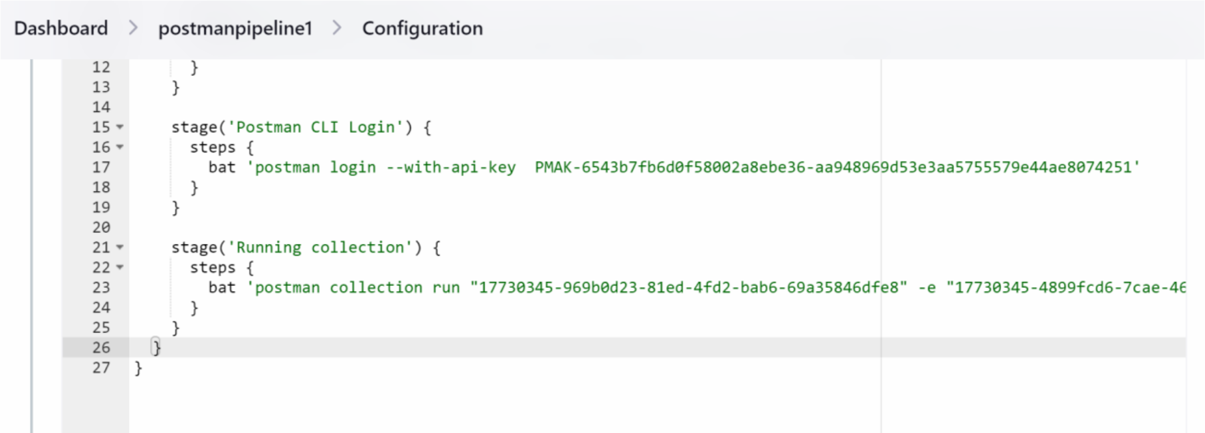
Go to Jenkins pipeline code

Stage 2 -> change sh to bat

And replace $POSTMAN_API_KEY to the actual postman apikey value



```

pipeline {
  agent any

  tools {nodejs 'node'}

  stages {
    stage('Install Postman CLI') {
      steps {
        bat 'powershell.exe -NoProfile -InputFormat None -ExecutionPolicy AllSigned -Command "[System.Net.Service
      }
    }

    stage('Postman CLI Login') {
      steps {
        bat 'postman login --with-api-key  PMAK-6543b7fb6d0f58002a8ebe36-aa948969d53e3aa5755579e44ae8074251'
      }
    }
```



```
      }
    }

    stage('Postman CLI Login') {
      steps {
        bat 'postman login --with-api-key  PMAK-6543b7fb6d0f58002a8ebe36-aa948969d53e3aa5755579e44ae8074251'
      }
    }

    stage('Running collection') {
      steps {
        bat 'postman collection run "17730345-969b0d23-81ed-4fd2-bab6-69a35846dfe8" -e "17730345-4899fcd6-7cae-46
      }
    }
  }
}
```

Then click on build now .