**Important Website**

* Third Generation Sentinel Policies - [hashicorp/terraform-sentinel-policies: Example Sentinel Policies for use with Terraform Cloud and Terraform Enterprise (github.com)](https://github.com/hashicorp/terraform-sentinel-policies)
* Sentinel Sample Functions - [terraform-guides/tfplan-functions.sentinel at master · hashicorp/terraform-guides (github.com)](https://github.com/hashicorp/terraform-guides/blob/master/governance/third-generation/common-functions/tfplan-functions/tfplan-functions.sentinel)

**How to download and install Terraform Sentinel?**

* Visit this website [Downloads | Sentinel by HashiCorp](https://docs.hashicorp.com/sentinel/downloads)
* Click on ‘Amd64’
* Unzip the downloaded file
* Copy ‘sentinel.exe’ from the unzipped folder
* Paste it in the path “C:\Users\DT495QF”
* To test it open your command prompt and run ‘sentinel --version’

**How to download and install Terraform?**

* Visit this website [Install | Terraform | HashiCorp Developer](https://developer.hashicorp.com/terraform/downloads)
* Select ‘windows’ as operating system from the menu
* Click on the download button at the right of ‘Amd64’
* Unzip the downloaded file
* Copy ‘terraform.exe’ from the unzipped folder
* Paste it in the path “C:\Users\DT495QF”
* To test it open your command prompt and run ‘terraform --version’

**How to download Git Bash?**

* Visit this website [Git - Downloading Package (git-scm.com)](https://git-scm.com/download/win)
* Click on ‘Click here to download’

**SSH connection to your GitHub account (Don’t use your office network during this configurations)**

* Open ‘Git Bash’
* Run below command
  + ssh-keygen -t ed25519 -C "your\_email@example.com"
* Press Enter
* Enter Passphrase (ex: something)
* Re Enter the passphrase (ex: something)
* Go to this path ‘C:\Users\DT495QF\.ssh’
* Open ‘id\_ed25519.pub’ with notepad
* Copy the text inside that file
* Go to your GitHub account
* Click on your profile icon and then go to ‘Settings’
* Click on ‘SSH and GPG keys’ from the side menu bar
* Click on ‘New SSH key’
* Give a suitable ‘Title’
* In the ‘Key’ field Paste the text what you have copied from ‘id\_ed25519.pub’ file
* Click on ‘Add SSH key’
* Run the command in Git Bash (GitHub username and email will be which you have used during the sign up of your GitHub account)
  + Git config --global user.name “<github username>”
  + Git config --global user.email “<github email>”
  + ssh -T git@github.com

**Push your main.tf file into a GitHub repository (Don’t use your office network during this configurations)**

* Create a repository in your GitHub account
* Open terminal in VSCode by ‘ ctrl + shift + ` ’
* Check are you inside that folder where your main.tf file is present
* Run the below commands (connecting with the repository for first time)
  + Git init
  + Git branch -M main
  + Git remote add origin [git@github.com:<git hub account username>/<repository\_name>.git](mailto:git@github.com:%3cgit%20hub%20account%20username%3e/%3crepository_name%3e.git)
  + Git add main.tf
  + Git commit -m “first commit”
  + Git push -u origin main
* Run the below commands (If repository is already connected and you have changed something in main.tf file and you want to push that change into GitHub repository)
  + Git add main.tf
  + Git commit -m “second commit”
  + Git push

**Create a terraform cloud account**

* Visit this website - <https://app.terraform.io/public/signup/account>
* Enter username, email and password (use personal email address)
* Check those two checkboxes
* Click on ‘Create account’
* You will get a confirmation mail into your mail id.
* Go to your mailbox
* Click on the confirmation link
* Then refresh your browser
* Go to ‘Organization’
* Click on ‘Create New Organization’
* Give it a name and email id and create a organization first

**Create Workspace in terraform cloud**

* Open your terraform cloud account by visiting this website <https://app.terraform.io/app/kausikporey/workspaces>
* Click on ‘New’ and Select ‘Workspace’ from the dropdown menu
* Select ‘Version Control Workflow’
* Select ‘GitHub’ and select ‘GitHub.com’ from dropdown menu
* Click on the button ‘Authorize Terraform Cloud’
* After doing this step if are getting ‘failed to install’ error then it is because of your browser is blocking the ‘pop-up’ window. Allow ‘pop-up’ in your browser then follow the previous two steps again
* Select the GitHub repository where you have pushed your main.tf file
* Then click on ‘Create Workspace’

**Create Variable in your sentinel workspace**

* Open your terraform cloud account by visiting this website <https://app.terraform.io/app/kausikporey/workspaces>
* Select the existing workspace where you want to store your variable
* Click on ‘Variables’ from the side menu bar
* Click on ‘+ Add variable‘ button
* In the ‘Key’ field write ‘AWS\_ACCESS\_KEY\_ID’
* In the ‘Value’ take paste the value which you have taken from your aws account
* Check the ‘sensitive’ box
* Click on ‘Add variable’ button
* Like these create two more variables
  + AWS\_SECRET\_ACCESS\_KEY
  + AWS\_DEFAULT\_REGION

**Create AWS Access and Secret Key**

* Open your AWS console
* Go to ‘IAM’
* Click on ‘Users’ from the side menu bar
* Click on ‘Add Users’ button
* Type a suitable name of the user (ex: terraform-sentinel)
* Click on ‘Next’
* From the ‘Permissions options’ select ‘Attach policies directly’
* In the search box type ‘administrator’ and enter
* Then check the box in the left for ‘AdministratorAccess’
* Click ‘Next’
* Click on ‘Create User’ button
* Then click on the user which you just created
* Go to ‘Security credentials’ from the menu
* In the page go to ‘Access keys’ section and click on ‘Create access key’
* Choose ‘Command Line Interface (CLI)’ and click on the check box below and then click ‘Next’
* Fill the field ‘Description tag value’
* Then click on ‘Create access key’
* Copy the access key and secret key and paste it in a notepad file for future use

**Generate mocks of yours terraform configuration**

* Open your terraform cloud account
* Go to your existing workspace
* Click on ‘Actions’ and select ‘Start new run’ from the dropdown
* Select ‘Choose run type’ = ‘Plan only’
* Click on ‘Start run’ button
* When your run will be completed you will get a button ‘Download Sentinel mocks’
* Click on that button to download your mocks
* Unzip the folder which you have downloaded