Nov 6th, 2024

- # PARAM Shavak User Guide

  - ## Prerequisites

    - IP address for accessing shavak
    - User id on shavak
    - SSH installed in your system. ((Most of the systems today have ssh installed by default))

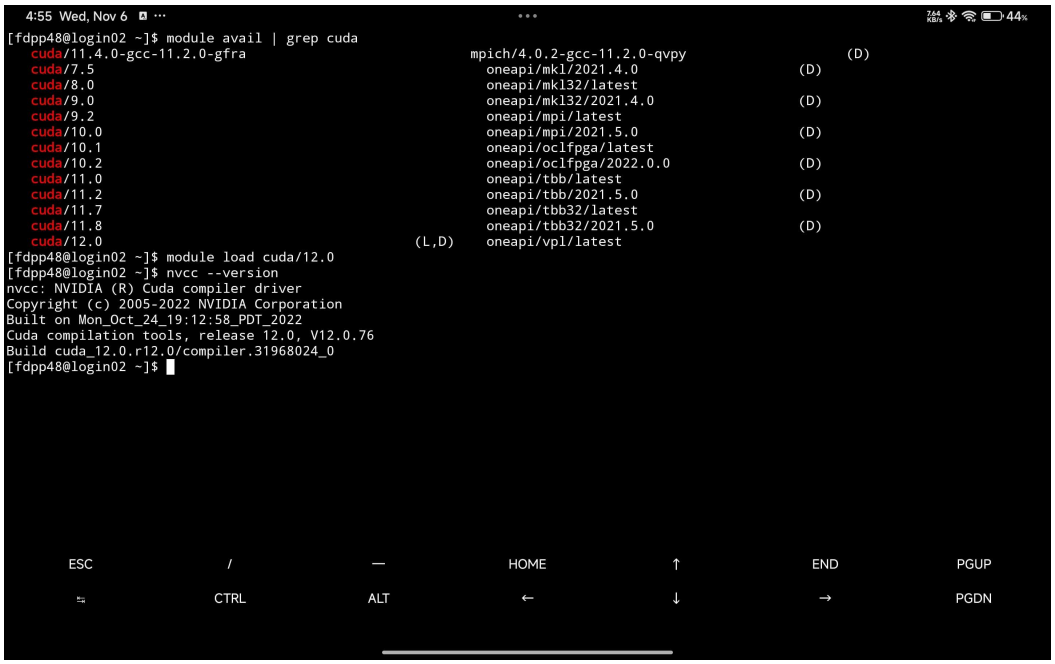
  - ## Getting access to shavak

    - Open a terminal on your system. If you are using linux/macos then open terminal, or if you are using a windows machine then open Powershell / Command Prompt.
    - Use below command to access shavak. Make sure your machine and shavak is connected with same network.
    - ```
      ssh username@ip-address
      ```
    - To get gui access with shavak((Open gui app on shavak)), use below command.
    - ```
      ssh -X username@ip-address
      ```
    - After that you'll be asked to verify your identity or type captcha.
    - After performing all the steps, type password of your user and you'll be allowed to enter the users account on shavak.

  - ## Installing modules or packages

    - ### Using modules

      - To list all the modules

        - ```
          module avail
          ```
        - This will show you all the modules available for you to use.
    - To load a module ((Needed to use the module))
        - ```
          module load module-name
          ```
        - This will load the module on your system.
    - You can search for a specific modules on your system using grep.
        - ```
          module avail | grep cuda
          ```
        - And then load that module.
        - 

- ## Using spack
    - First you need to load/source the spack.
        - ```
          source /home/apps/shavak/share/shavak/setup-env.sh
          ```
        - After that `shavak` command will be available for you to use.
    - To list available packages
        - ```
          spack list
          ```
          ```

- To list all the installed packages
    - ```
      spack find
      ```
- To use a package first you need to load on your system.
    - ```
      spack load package-name
      ```
- There could be multiple version of same package. Above command will only work if you have only one version of a package installed otherwise it will fail and will give hashes of all the versions you have installed in your system.
    - To load a specific version.
        - ```
          spack load package-name/hash-of-that-package
          ```
        - This will load the package for you to use.
        - Example

- To unload a package
    - ```
      spack unload package-name
      ```