This document is a small guide on how to use the Linux server and the basics of the R Studio server.

This document will not include how to connect to the server or anything related to the tool.

Requirements

Creating a user requires the account to run the commands to have Admin/Sudo perms,

To test this simply try running the code “sudo ls” If it doesn't give you an error then you have the correct permissions.

The server is running a RHEL8.5 Linux distribution developed by Red Hat.

The documentation can be found here:  
https://access.redhat.com/documentation/en-us/red\_hat\_enterprise\_linux/8/html/8.5\_release\_notes/index

The package manager for this is DNF (Dandified YUM) This is used for installing packages:

*“sudo dnf install <package-name>”*

# User management

## Creating user

\*Replace the username with the name wanted for the account, this counts for all the following commandos below.

**Linux server**

Add a user with

*“sudo useradd username”*

Now set a password for this account

*“sudo passwd username”*

You will be prompted to insert a password for this account.

To give this user their own folder in the home directory /home/

*“sudo useradd -m username”*

*“chown -R username /home/username”*

To give this user admin rights, use the following step

*“sudo usermod -aG sudo username”*

Removing this can be done aswell

*“sudo deluser <username> sudo”*

To check a user and its information

*“sudo id username”*

This command will display the user ID, group ID, and groups the user belongs to

**(Optional) Add user to the R studio server**

*“sudo rstudio-server add-user <username> --is-admin 0”*

If you want to add the user as an administrator, change --is-admin 0 to --is-admin 1

\*These administrator rights are separate from the admin rights on the Linux server.

Changing a Account that has already been made can be done

*“sudo rstudio-server set-admin <username> --is-admin 1”*

# R studio management

Updating the server can be done, be careful cause this might result in losing all progress etc.

*“sudo apt-get update”*

*“sudo apt-get install rstudio-server”*

Restarting the server

*“sudo rstudio-server restart”*

To check the status of the server (running, offline, etc)

*“sudo systemctl status rstudio-server”*

Enabling the startup of the R studio on the startup of the linux server (already done by default)

*“sudo systemctl enable rstudio-server”*

disabling is done be changing enable to disable.

# Other useful commands

For someone new to RHEL 8.5 and looking for useful commands similar to "top", here are some essential tools and commands that can help manage and monitor the system:

1. System Monitoring and Management

"top": As you mentioned, "top" is a dynamic real-time view of the processes running on a system. It displays system summary information as well as a list of tasks currently being managed by the Linux kernel. It's a great tool for monitoring system performance [3].

"htop": An interactive process viewer for Unix systems. It's similar to "top" but provides a more user-friendly and visually appealing interface. It allows you to scroll vertically and horizontally, so you can see all the processes running on the system, along with their full command lines.

"vmstat": Reports information about processes, memory, paging, block IO, traps, and CPU activity. It's useful for monitoring system performance and identifying bottlenecks.

"iostat": Reports CPU statistics and input/output statistics for devices and partitions. It's useful for monitoring disk I/O and CPU usage.

"free": Displays the total amount of free and used physical and swap memory in the system, as well as the buffers and caches used by the kernel.

"df": Reports the amount of disk space used and available on filesystems. It's useful for monitoring disk usage.

"du": Estimates file and directory space usage. It's useful for finding out how much space is being used by directories and files.

2. Networking

"ip": A powerful tool for managing network configuration. It can display or manipulate routing, devices, policy routing, and tunnels. It's a modern replacement for the older "ifconfig" command [1].

"ss": A utility to investigate sockets. It allows showing information similar to "netstat". It can display more TCP and state information than other tools.

"netstat": Displays network connections, routing tables, interface statistics, masquerade connections, and multicast memberships.

"nmap": A network exploration tool and security/port scanner. It can be used to discover hosts and services on a computer network.

3. System and Service Management

"systemctl": Controls the "systemd" system and service manager. It's used to start, stop, and manage services. It's a powerful tool for managing systemd services [1].

"journalctl": Query the contents of the systemd journal. It's useful for viewing system logs.

"firewall-cmd": A command-line interface to "firewalld", the firewall management tool for RHEL. It's used to manage firewall rules and zones [1].

4. File and Directory Management

"ls": Lists directory contents. It's used to view files and directories in the current directory.

"cd": Changes the current directory. It's used to navigate through the filesystem.

"cp": Copies files and directories.

"mv": Moves or renames files and directories.

"rm": Removes files and directories.