CLOUD COMPUTING AND DEVOPS

Rohan Tikotekar
VIIT IT C C3
RollNo.333056
PRN.22010060

Assignment 2:

Problem statements for shell scripting:

2a) Write a shell script to check user is root user or not

[HINT: study "id" command in linux]

2b) Write a shell script to install any particular software (ex: java or python)

2c)

Write a shell script to check disk usage of the system and if disk usage is more than 90% it should send an email to system admin. This script should run everyday at 8:00 AM.

[HINT: study "du", "sed", crontab, mail in linux]

2d) write a shell script to take mysql database server backup. This script should run weekly on every sunday at 11:00 PM.

Theory:

1. What is a shell

Shell is the outermost layer of the operating system. Shells incorporate a programming language to control processes and files, as well as to start and control other programs. The shell manages the interaction between you and the operating system by prompting you for input, interpreting that input for the operating system, and then handling any resulting output from the operating system.

Shells provide a way for you to communicate with the operating system. This communication is carried out either interactively or as a shell script. A shell script is a sequence of shell and operating system commands that is stored in a file.

When you log in to the system, the system locates the name of a shell program to execute. After it is executed, the shell displays a command prompt. This prompt is usually a $. When you type a command at the prompt and press the Enter key, the shell evaluates the command and attempts to carry it out. Depending on your command instructions, the shell writes the command output to the screen or redirects the output. It then returns the command prompt and waits for you to type another command.

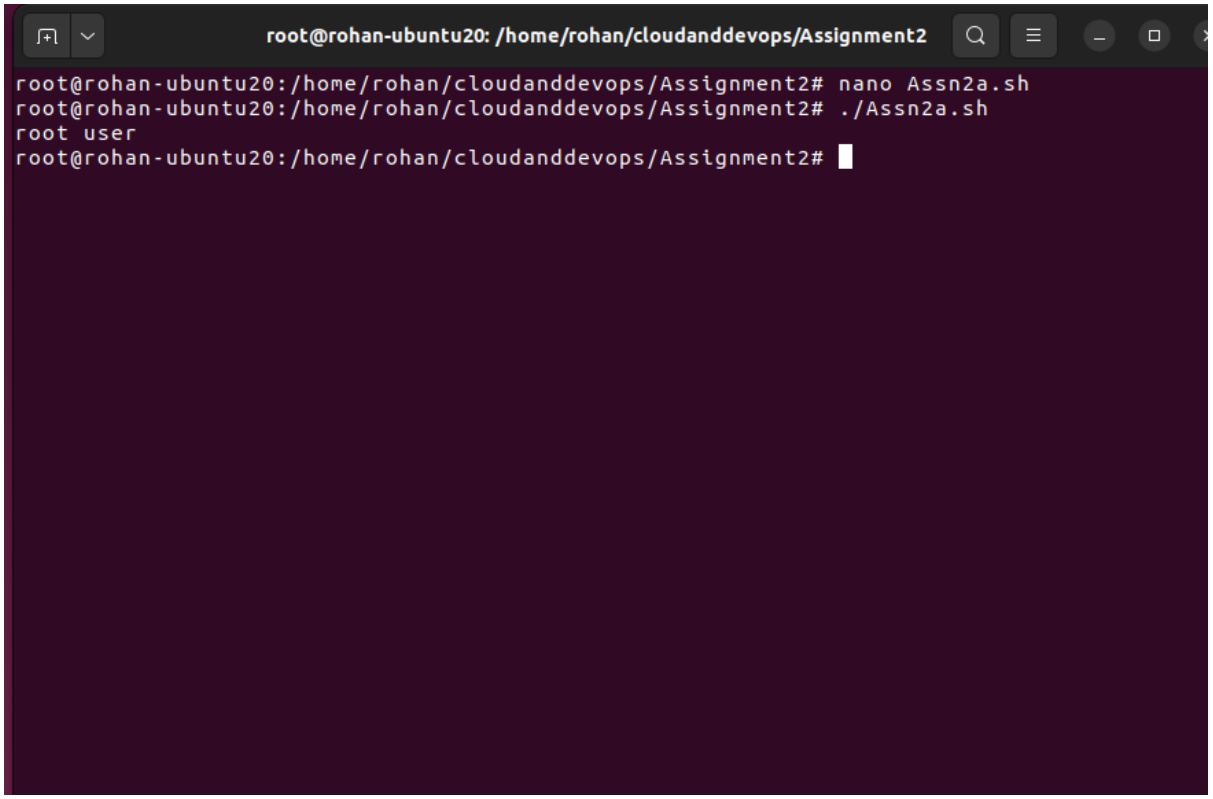
2. Types of shells

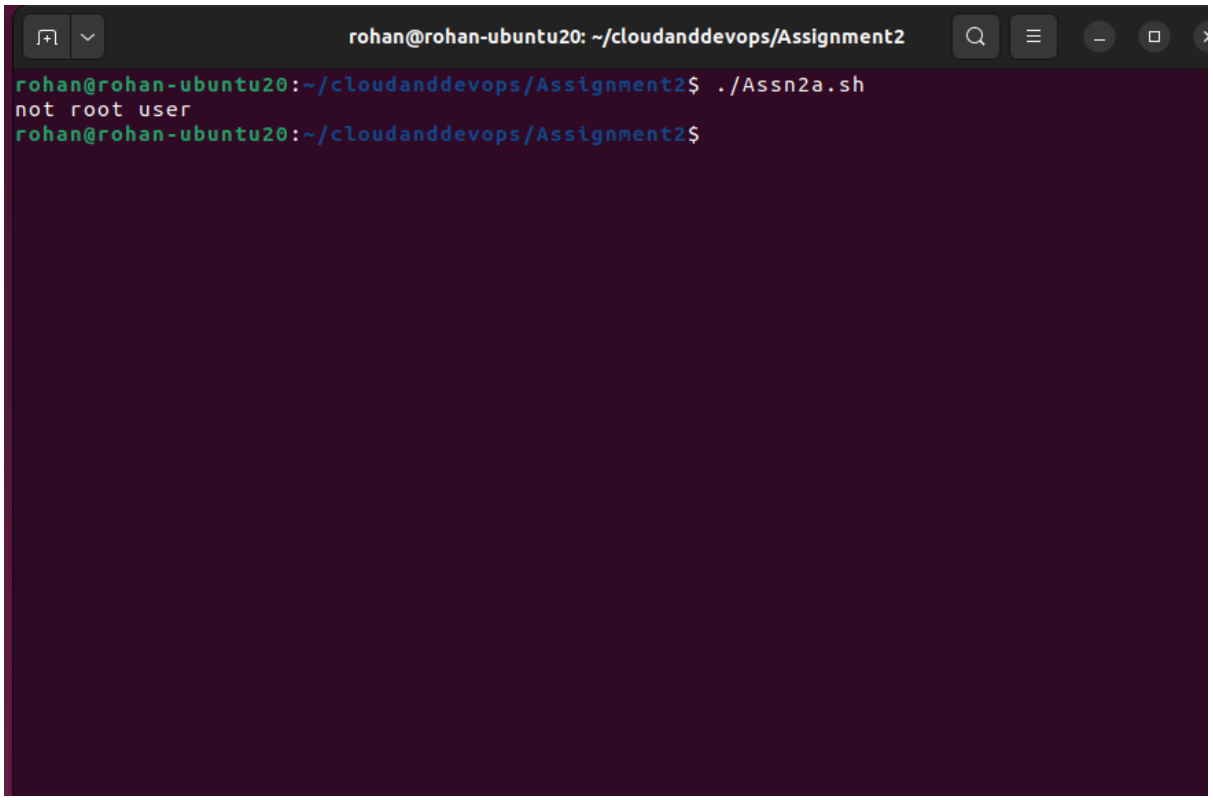
C shell – syntax similar to C language
Korn shell - has several best features of bourne shell
Bourne shell – interactive command interpreter
Bourne again shell – improved version of bourne shell

2a.

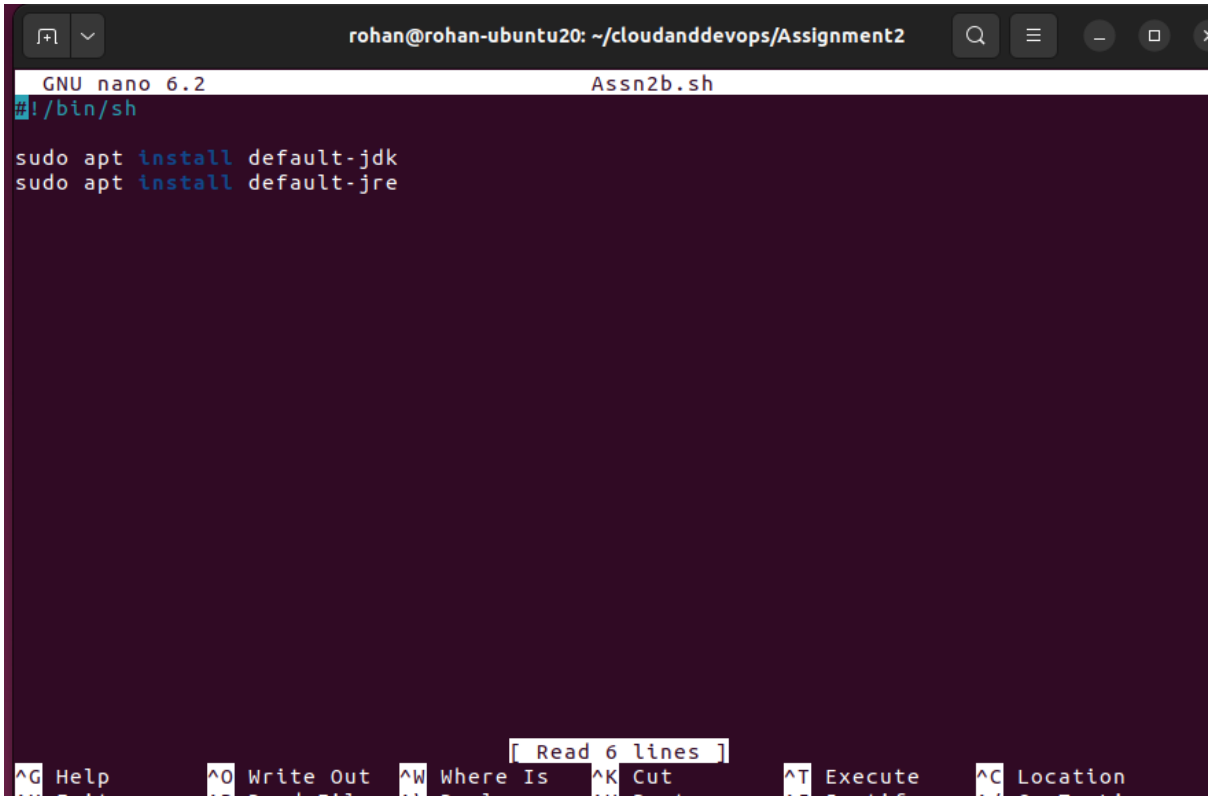
When user is rohan the output is given as ‘not root user’.

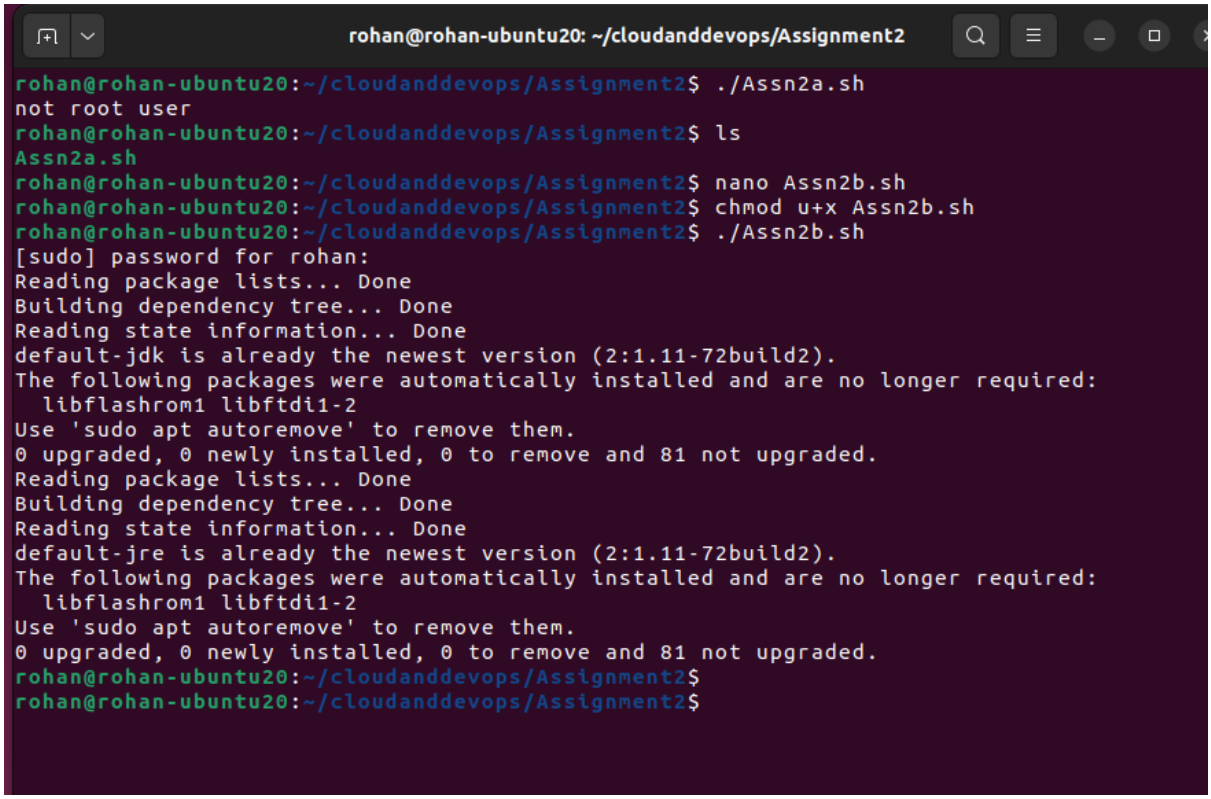
When we are in root mode the output is ‘root user’.


root@rohan-ubuntu20: /home/rohan/cloudanddevops/Assignment2
root@rohan-ubuntu20:/home/rohan/cloudanddevops/Assignment2# nano Assn2a.sh
root@rohan-ubuntu20:/home/rohan/cloudanddevops/Assignment2# ./Assn2a.sh
root user
root@rohan-ubuntu20:/home/rohan/cloudanddevops/Assignment2#


rohan@rohan-ubuntu20: ~/cloudanddevops/Assignment2
rohan@rohan-ubuntu20:~/cloudanddevops/Assignment2$ ./Assn2a.sh
not root user
rohan@rohan-ubuntu20:~/cloudanddevops/Assignment2$

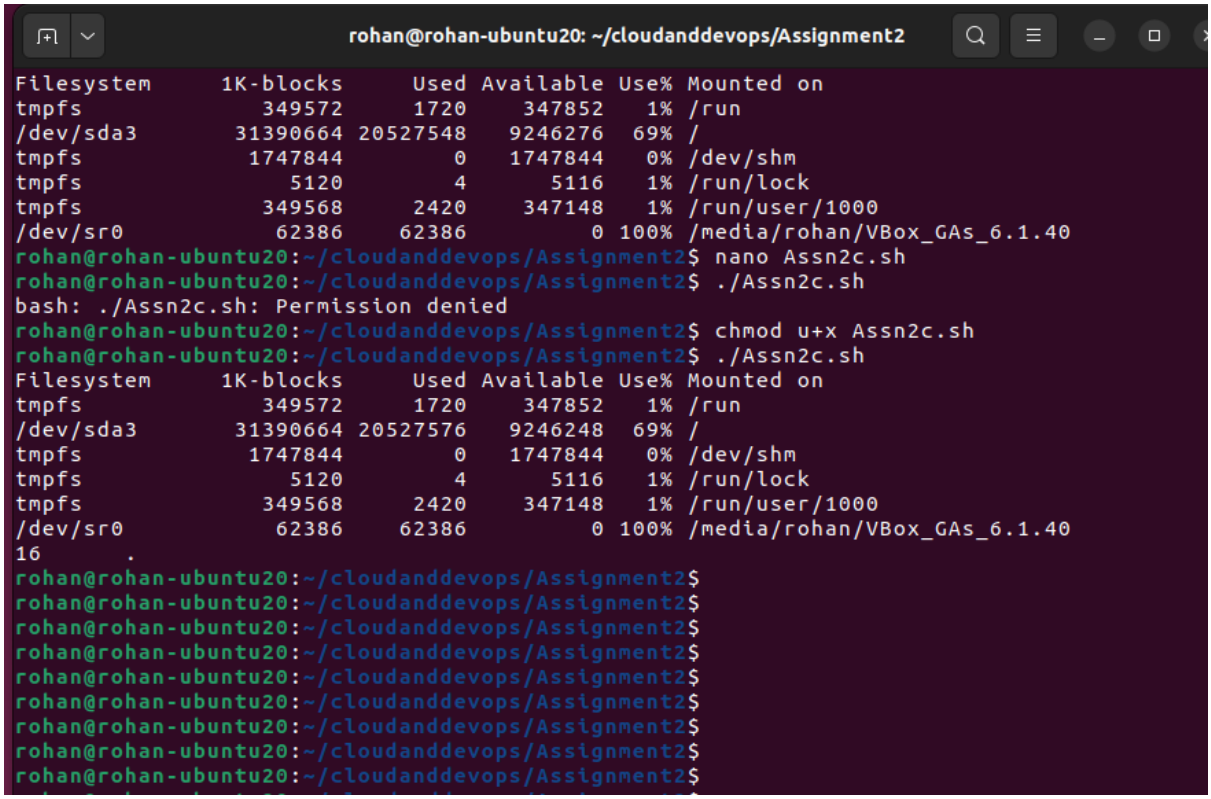
2b. Bash file to install java





2c.

Shell script to check disk usage



2d.

Backup for sql database Assignment1