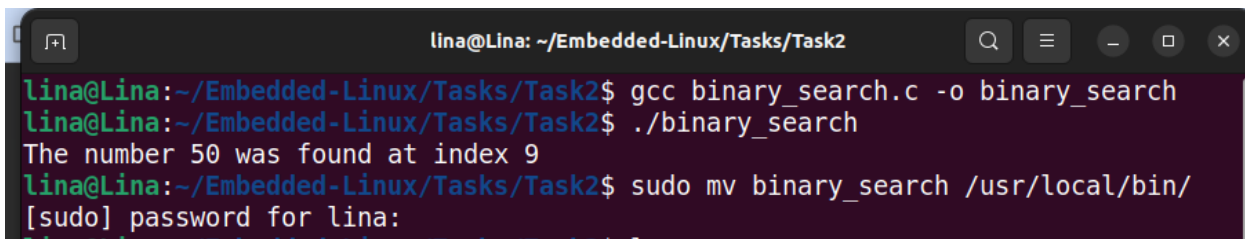


Admin Linux - Task 2

Question 2:

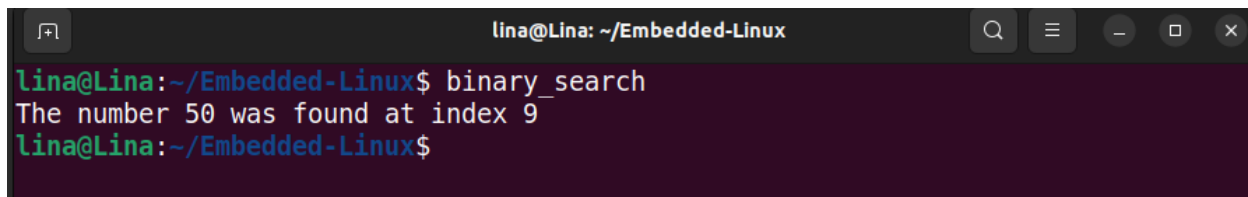
1. Moving the binary file output to the directory /usr/local/bin



```
lina@Lina: ~/Embedded-Linux/Tasks/Task2
lina@Lina:~/Embedded-Linux/Tasks/Task2$ gcc binary_search.c -o binary_search
lina@Lina:~/Embedded-Linux/Tasks/Task2$ ./binary_search
The number 50 was found at index 9
lina@Lina:~/Embedded-Linux/Tasks/Task2$ sudo mv binary_search /usr/local/bin/
[sudo] password for lina:
```

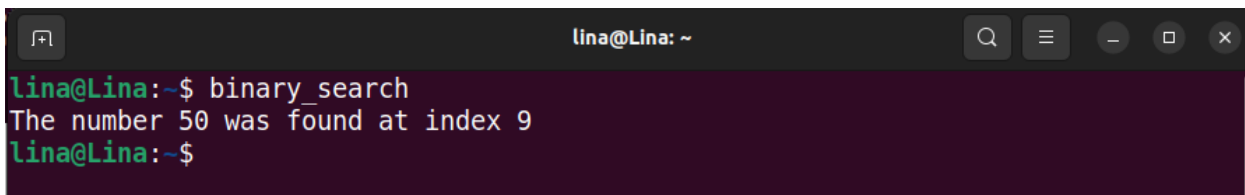
2. Executing binary_search from multiple directories:

- Cd ../../



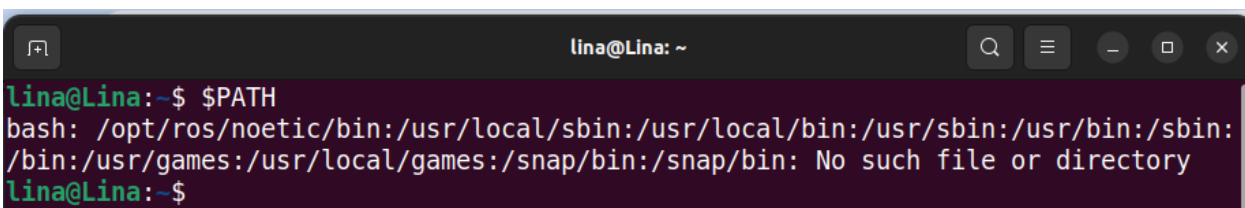
```
lina@Lina: ~/Embedded-Linux
lina@Lina:~/Embedded-Linux$ binary_search
The number 50 was found at index 9
lina@Lina:~/Embedded-Linux$
```

- Home directory:



```
lina@Lina: ~
lina@Lina:~$ binary_search
The number 50 was found at index 9
lina@Lina:~$
```

3. Evidence as to why the binary can be executed from any location:



```
lina@Lina: ~
lina@Lina:~$ $PATH
bash: /opt/ros/noetic/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin:/snap/bin: No such file or directory
lina@Lina:~$
```

Since “/usr/local/bin” is one of the specified directories listed in the system’s PATH environment variable, and binary_search was moved to this directory, the shell can execute it without being in the directory of this binary explicitly.