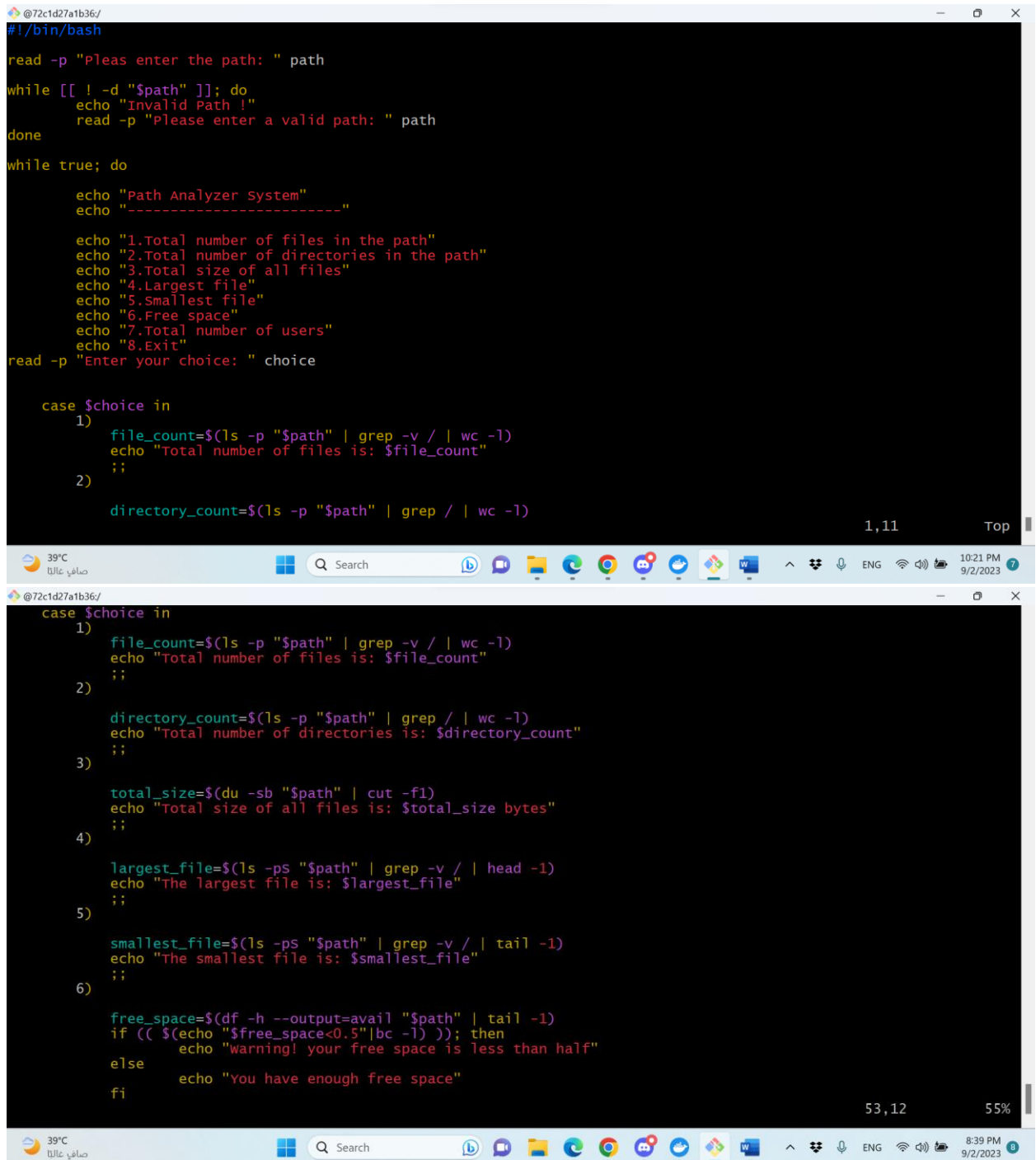


Path Analyzer System:

- Screenshots of the script file path.sh



```
@72c1d27a1b36/
#!/bin/bash

read -p "Please enter the path: " path

while [[ ! -d "$path" ]]; do
    echo "Invalid Path !"
    read -p "Please enter a valid path: " path
done

while true; do

    echo "Path Analyzer System"
    echo "-----"

    echo "1.Total number of files in the path"
    echo "2.Total number of directories in the path"
    echo "3.Total size of all files"
    echo "4.Largest file"
    echo "5.Smallest file"
    echo "6.Free space"
    echo "7.Total number of users"
    echo "8.Exit"

    read -p "Enter your choice: " choice

    case $choice in
        1)
            file_count=$(ls -p "$path" | grep -v / | wc -l)
            echo "Total number of files is: $file_count"
            ;;
        2)
            directory_count=$(ls -p "$path" | grep / | wc -l)
            echo "Total number of directories is: $directory_count"
            ;;
        3)
            total_size=$(du -sb "$path" | cut -f1)
            echo "Total size of all files is: $total_size bytes"
            ;;
        4)
            largest_file=$(ls -ps "$path" | grep -v / | head -1)
            echo "The largest file is: $largest_file"
            ;;
        5)
            smallest_file=$(ls -ps "$path" | grep -v / | tail -1)
            echo "The smallest file is: $smallest_file"
            ;;
        6)
            free_space=$(df -h --output=avail "$path" | tail -1)
            if (( $(echo "$free_space<0.5"|bc -l) )); then
                echo "warning! your free space is less than half"
            else
                echo "you have enough free space"
            fi
            ;;
        *)
            echo "Invalid choice"
            ;;
    esac
done
```

1,11 Top

39°C صافي عالیا

Q Search

10:21 PM 9/2/2023

```
@72c1d27a1b36/
case $choice in
1)
    file_count=$(ls -p "$path" | grep -v / | wc -l)
    echo "Total number of files is: $file_count"
    ;;
2)
    directory_count=$(ls -p "$path" | grep / | wc -l)
    echo "Total number of directories is: $directory_count"
    ;;
3)
    total_size=$(du -sb "$path" | cut -f1)
    echo "Total size of all files is: $total_size bytes"
    ;;
4)
    largest_file=$(ls -ps "$path" | grep -v / | head -1)
    echo "The largest file is: $largest_file"
    ;;
5)
    smallest_file=$(ls -ps "$path" | grep -v / | tail -1)
    echo "The smallest file is: $smallest_file"
    ;;
6)
    free_space=$(df -h --output=avail "$path" | tail -1)
    if (( $(echo "$free_space<0.5"|bc -l) )); then
        echo "warning! your free space is less than half"
    else
        echo "you have enough free space"
    fi
    ;;
*)
    echo "Invalid choice"
    ;;
esac
```

53,12 55%

39°C صافي عالیا

Q Search

8:39 PM 9/2/2023

```
@72c1d27a1b36/

smallest_file=$(ls -ps "$path" | grep -v ./ | tail -1)
echo "The smallest file is: $smallest_file"
;;

6)

free_space=$(df -h --output=avail "$path" | tail -1)
if (( $(echo "$free_space<0.5"|bc -l) )); then
    echo "warning! your free space is less than half"
else
    echo "You have enough free space"
fi
echo "The free space is: $free_space"
;;

7)
no_of_users=$(grep -c $path /etc/passwd)
echo "Number of users: $no_of_users"
;;

8)
echo "Exiting..."
break
;;

*)
echo "Invalid choice. Please try again."
;;

esac

read -p "Press Enter to continue..."

done

~

78,0-1 Bot
```

- Screenshots of the script output:

```
@72c1d27a1b36/

[root@72c1d27a1b36 /]# ls /pathtest
filetest1.txt filetest22.txt ptest1 ptest2 ptest3
[root@72c1d27a1b36 /]# bash path.sh
Please enter the a path: /pathtest
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 1
Total number of files is: 2
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 2
Total number of directories is: 3
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
```

```
@72c1d27a1b36/
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 3
Total size of all files is: 16457 bytes
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 4
The largest file is: filetest22.txt
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
```

```
@72c1d27a1b36/
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 5
The smallest file is: filetest1.txt
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 6
You have enough free space
The free space is: 954G
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
```

```
@72c1d27a1b36/
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 6
You have enough free space
The free space is: 954G
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 7
Number of users: 0
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 8
Exiting...
[root@72c1d27a1b36 /]#
```

- If the user entered an invalid path:

```
@72c1d27a1b36/
7.Total number of users
8.Exit
Enter your choice: 7
Number of users: 0
Press Enter to continue...
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 8
Exiting...
[root@72c1d27a1b36 /]# bash path.sh
Please enter the a path: /pathtt
Invalid Path !
Please enter a valid path: /home
Path Analyzer System
-----
1.Total number of files in the path
2.Total number of directories in the path
3.Total size of all files
4.Largest file
5.Smallest file
6.Free space
7.Total number of users
8.Exit
Enter your choice: 8
Exiting...
[root@72c1d27a1b36 /]#
```