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ROLL NO : 127

BATCH : S23

UNIX LAB ASSG NO. 7A AND 7B

AIM: To Study Basic Shell Programming

Theory: Shell programming in Unix involves writing scripts using shell languages like Bash, sh, csh, or ksh to automate tasks or execute commands via the command-line interface. These scripts, interpreted by the shell at runtime, are commonly used for system administration, file manipulation, and automation. They facilitate tasks such as backups, file management, and system configuration. Shell scripts can execute commands, manipulate files and directories, handle errors, and utilize environment variables. While offering portability across Unix-like systems, they require consideration of syntax differences between shell types. Overall, shell programming provides a powerful means to interact with Unix systems, enhancing productivity for administrators, developers, and users.

7.A: Display the date of the system and check if it is a leap year.

CODE:

```bash
#!/bin/bash

year=$(date +"%Y")


# divideable by 4  and (not by 100 or divideable by 400)

if [ $((year % 4)) -eq 0 ] && [ $((year % 100)) -ne 0 ] || [ $((year % 400)) -eq 0 ]
then
  echo "$year is a leap year"
else
  echo "$year is not a leap year"
fi
```

OUTPUT:

```
lab1003@lab1003-HP-280-G2-MT:~/Desktop/S23_127$ chmod +x LeapYear.sh
lab1003@lab1003-HP-280-G2-MT:~/Desktop/S23_127$ ./LeapYear.sh
2024 is a leap year
```

7.B: Take name as in input in format firstname, middlename, lastname and display the full-name.

CODE:

```bash
#!/bin/bash

read -p "Enter your first name: " firstName

read -p "Enter your middle name : " middleName

read -p "Enter your last name: " lastName

fullName="$firstName"

fullName="$fullName $middleName"

fullName="$fullName $lastName"

echo "Your full name is: $fullName"
```

OUTPUT:

```
lab1003@lab1003-HP-280-G2-MT:~$ cd Desktop
lab1003@lab1003-HP-280-G2-MT:~/Desktop$ cd S23_127
lab1003@lab1003-HP-280-G2-MT:~/Desktop/S23_127$ chmod +x Name.sh
lab1003@lab1003-HP-280-G2-MT:~/Desktop/S23_127$ ./Name.sh
Enter your first name: Atharva
Enter your middle name : Ashok
Enter your last name: Yadav
Your full name is: Atharva Ashok Yadav
lab1003@lab1003-HP-280-G2-MT:~/Desktop/S23_127$
```