

Assignment 3

Software Tools and Technologies

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Course : MCA  
Semester : 1st semester
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Que 1

1. creating batch file with my name and roll no and implementing logic.

```
touch ravi_45.sh
```

```
ravish@RavishPC:~$ cat ravi_45.sh
#!/bin/bash

name="$1"
rollno="$2"

if [ -z "$name" ]; then
    read -p "Enter your name : " name
fi

name=$(echo "$name" | xargs)

if [ -z "$rollno" ]; then
    read -p "Enter your rollno : " rollno
fi

if ! [[ "$rollno" =~ ^[0-9]+$ ]]; then
    echo "ERROR: Roll number must be numeric" >&2
    exit 2
fi

echo "Student: $name"
echo "Roll $rollno"
ravish@RavishPC:~$ |
```

2. checking property of file

```
ls -l ravi_45.sh
```

```
ravish@RavishPC:~$ ls -l ravi_45.sh
-rw-r--r-- 1 ravish ravish 338 Oct 11 06:01 ravi_45.sh
ravish@RavishPC:~$ |
```

3. making file executable

```
chmod +x ravi_45.sh
```

```
ravish@RavishPC:~$ chmod +x ravi_45.sh
ravish@RavishPC:~$ ls -l ravi_45.sh
-rwxr-xr-x 1 ravish ravish 338 Oct 11 06:01 ravi_45.sh
ravish@RavishPC:~$ |
```

4. getting starting 20 lines of file

```
head -n 20 ravi_45.sh
```

```
ravish@RavishPC:~$ head -n 20 ravi_45.sh
#!/bin/bash

name="$1"
rollno="$2"

if [ -z "$name" ]; then
    read -p "Enter your name : " name
fi

name=$(echo "$name" | xargs)

if [ -z "$rollno" ]; then
    read -p "Enter your rollno : " rollno
fi

if ! [[ "$rollno" =~ ^[0-9]+$ ]]; then
    echo "ERROR: Roll number must be numeric" >&2
    exit 2
fi

ravish@RavishPC:~$ |
```

5. checking syntax of file

```
bash -n ravi_45.sh
```

```
ravish@RavishPC:~$ bash -n ravi_45.sh  
ravish@RavishPC:~$
```

6. Positional arguments run

```
./ravi_45.sh "Ravish Ranjan" 45
```

```
ravish@RavishPC:~$ ./ravi_45.sh "Ravish Ranjan" 45  
Student: Ravish Ranjan  
Roll 45
```

7. Interactive run

```
./ravi_45.sh
```

```
ravish@RavishPC:~$ ./ravi_45.sh  
Enter your name : Ravish Ranjan  
Enter your rollno : 45  
Student: Ravish Ranjan  
Roll 45
```

8. Invalid rollno run

```
./ravi_45.sh "Ravish Ranjan" 45a
```

```
ravish@RavishPC:~$ ./ravi_45.sh "Ravish Ranjan" 45a  
ERROR: Roll number must be numeric  
ravish@RavishPC:~$
```