

Lab 1

```
GNU nano 8.1
# ! bin/bash/

fullname="aya faisal"
birth_year=2002
faculty="computer sciens"

echo "full name: $fullname"
echo "bir_year: $birth_year"
echo "faculty: $faculty"

Aya@ubuntu:~$
Aya@ubuntu:~$
Aya@ubuntu:~$ nano ayascript.sh
Aya@ubuntu:~$ chmod +x ayascript.sh
Aya@ubuntu:~$ ./ayascript.sh
full name: aya faisal
bir_year: 2002
faculty: computer sciens
Aya@ubuntu:~$
Aya@ubuntu:~$
```

Lab2

```
echo -n "enter a value: "
read user_input
echo "you entered into: $user_input"

Aya@ubuntu:~$
Aya@ubuntu:~$
Aya@ubuntu:~$
Aya@ubuntu:~$
Aya@ubuntu:~$ nano ayascript.sh
Aya@ubuntu:~$ ./ayascript.sh
enter a value: 50
you entered into: 50
Aya@ubuntu:~$ \
```

Lab3

```
Aya@ubuntu:~$  
Aya@ubuntu:~$  
Aya@ubuntu:~$ nano ayascript.sh  
Aya@ubuntu:~$ ./ayascript.sh  
second city: chicago  
enter a new city: 3 egypt  
all cities: tokyo chicago moscow  
Aya@ubuntu:~$
```

```
cities=("tokyo" "chicago" "moscow")  
echo "second city: ${cities[1]}"  
read -p "enter a new city: ${#cities[@]}"  
echo "all cities: ${cities[@]}"
```

Lab4

```
rate=50  
read -p "working hours: " hours  
  
if [ "$hours" -lt 40 ]  
then  
    salary=$(( $hours * $rate * 9 / 10 ))  
    echo "10% deduction applied. your salary is: $salary"  
else  
    salary=$((hours * rate))  
    echo "your salary is: $salary"  
fi
```

```
Aya@ubuntu:~$  
Aya@ubuntu:~$  
Aya@ubuntu:~$ nano ayascript.sh  
Aya@ubuntu:~$ ./ayascript.sh  
working hours: 50  
your salary is: 2500  
Aya@ubuntu:~$ ./ayascript.sh  
working hours: 35  
10% deduction applied. your salary is: 1575  
Aya@ubuntu:~$
```

```
read -p "Enter a number: " num

if [[ "$num" == *.* ]]
then
    echo "Invalid input. Please enter an integer."
else
    if [[ "$num" -eq 0 ]]
    then
        echo "You entered zero."
    elif (( num % 2 == 0 ))
    then
        echo "$num is even."
    else
        echo "$num is odd."
    fi
fi
```

Lab 5

```
Aya@ubuntu:~$
Aya@ubuntu:~$ nano ayascript.sh
Aya@ubuntu:~$ ./ayascript.sh
Enter a number: 2
2 is even.
Aya@ubuntu:~$ ./ayascript.sh
Enter a number: 7
7 is odd.
Aya@ubuntu:~$ ./ayascript.sh
Enter a number: 0
You entered zero.
Aya@ubuntu:~$
```

Lab6

```
Aya@Ubuntu-VirtualBox:~$ ./exam
Enter your grade
20
failed
Aya@Ubuntu-VirtualBox:~$ ./exam
Enter your grade
50
Normal
Aya@Ubuntu-VirtualBox:~$ ./exam
Enter your grade
70
Good
Aya@Ubuntu-VirtualBox:~$ ./exam
Enter your grade
80
Very Good
Aya@Ubuntu-VirtualBox:~$ ./exam
Enter your grade
100
Excellent
Aya@Ubuntu-VirtualBox:~$ ./exam
Enter your grade
```

Lab7

```
Aya@Ubuntu-VirtualBox:~$ touch char
Aya@Ubuntu-VirtualBox:~$ chmod +x char
Aya@Ubuntu-VirtualBox:~$ vim char
Aya@Ubuntu-VirtualBox:~$ ./char
  enter single character
a
  Alphabet
Aya@Ubuntu-VirtualBox:~$ A
A: command not found
Aya@Ubuntu-VirtualBox:~$ ./char
  enter single character
A
  Alphabet
Aya@Ubuntu-VirtualBox:~$ ./char
  enter single character
2
  Numeric
Aya@Ubuntu-VirtualBox:~$ ./char
  enter single character
$
  special char
Aya@Ubuntu-VirtualBox:~$
```

Lap 8

```
Aya@Ubuntu-VirtualBox:~$ ./amin
Enter your name:
Aya
Wrong Answer! Try again:
Faisel
Wrong Answer! Try again:
Amin
You got it!
Aya@Ubuntu-VirtualBox:~$
```

Lab9

```
sum=0

for i in {0..9}
do
    read -p "Enter number $i: " num
    sum=$((sum + num))
done

echo "Summation=$sum"
```

```
Aya@ubuntu:~$
Aya@ubuntu:~$ nano ayascript.sh
Aya@ubuntu:~$ ./ayascript.sh
Enter number 0: 11
Enter number 1: 4
Enter number 2: 9
Enter number 3: 5
Enter number 4: 22
Enter number 5: 45
Enter number 6: 85
Enter number 7: 77
Enter number 8: 1
Enter number 9: 4
Summation=263
Aya@ubuntu:~$
```