

Variable Assignment

name="Alice"

#won't work

2nduser="Robin"

first-user="Rakin"

#print

echo "Hello OS"

echo "The name is \$name"

#taking user input

echo "What is your age?"

read age

echo "Age is \$age"

#Arithmetic opertaion

num1=10

num2=6

echo "Addition : \$((num1 + num2))"

echo "Subtraction : \$((num1 - num2))"

echo "Multiplication : \$((num1 * num2))"

echo "Division : \$((num1/num2))"

echo "Modulus : \$((num1 % num2))"

echo "Exponentiation : \$((num1** num2))"

operator precedence

result=\$((5 + 2 * 3))

echo "Without parentheses: \$result"

result=\$(((5 + 2) * 3))

echo "With parentheses: \$result"

#Array

fruits=("apple" "banana" "cherry" "date")

```
echo "${fruits[@]}"
```

```
# empty array declaration and assignment
```

```
declare -a colors
```

```
colors[0]="red"
```

```
colors[1]="green"
```

```
colors[2]="blue"
```

```
echo "${colors[@]}"
```

```
# Accessing using indexes
```

```
echo "First fruit: ${fruits[0]}"
```

```
echo "Second fruit: ${fruits[1]}"
```

```
# Accessing length of array
```

```
echo "Number of fruits: ${#fruits[@]}"
```

```
#if - else
```

```
#!/bin/bash
```

```
if [ condition ]
```

```
then
```

```
# Commands to be executed if the condition is true
```

```
else
```

```
# Commands to be executed if the condition is false
```

```
fi
```

```
#!/bin/bash
```

```
num=501
```

```
if [ $num -gt 10 ]
```

```
then
```

```
echo "The number is greater than 10."
```

```
else
```

```
echo "The number is less than or equal to 10."
```

```
fi
```

```
#if - else with relational operators
```

```
# Using relational operators
```

```
#eq (equal to)
#ne (not equal to)
#lt (less than)
#le (less than or equal to)
#gt (greater than)
#ge (greater than or equal to)
```

```
#!/bin/bash
num1=7
num2=5
if [ $num1 -eq $num2 ]; then
echo "$num1 is equal to $num2"
else
echo "$num1 is not equal to $num2"
fi
```

```
# nested if-else statements
```

```
#!/bin/bash
num=-6
if [ $num -gt 0 ]
then
echo "The number is positive."
if [ $((num % 2)) -eq 0 ]
then
echo "The number is even."
else
echo "The number is odd."
fi
else
echo "The number is not positive."
fi
```


