# Shell script tutorial

A shell script is a series of [bash commands](#) that can be executed by shell. A nice tutorial for shell scripting is available at [the shell tutorial](#) and [Bash scripting cheatsheet](#).

## "Hello World" using *echo*.

```shell
#!/bin/sh
echo "Hello World"
```

## Read user interactive input

```shell
#!/bin/sh
echo "What is your name?"
read NAME
echo "Hello, $NAME"
```

## Read parameters from command lines: ./script.sh 3 alpha

```shell
#!/bin/sh
echo $1 $2
echo $@
```

## Array Variables: all shell variables are capitalized

```sh
#!/bin/sh
NAME[0]="Zara"
NAME[1]="Qadir"
NAME[2]="Mahnaz"
NAME[3]="Ayan"
NAME[4]="Daisy"
echo "names: ${NAME[*]}"
for ITEM in ${NAME[*]}
do
        echo $ITEM
done
```

## Math expression using backtick `expr`

```sh
#!/bin/sh
val=`expr 2 + 2`
echo "Total value : $val"
```

## Flow: making decision if. elif. else

```sh
#!/bin/sh
NAME[0]="Zara"
NAME[1]="Qadir"
NAME[2]="Mahnaz"
NAME[3]="Ayan"
NAME[4]="Daisy"
echo "names: ${NAME[*]}"

for ITEM in ${NAME[*]}
```

```shell
do
        echo $ITEM
        if [ $ITEM == "Ayan" ]
        then
            break
        fi
done
```

## Loop: while, for, until

```shell
#!/bin/sh
a=0
while [ $a -lt 10 ]
do
   echo $a
   if [ $a -eq 5 ]
   then
       break
   fi
   a=`expr $a + 1`
done
```

## Define a function

```shell
#!/bin/sh
Hello () {
   echo "Hello World $1 $2"
}
Hello Zara Ali
```