

b2 , b3

- ตัวอย่างการเขียนเบื้องต้น พวกประกาศตัวแปร , การอ้างถึงตัวแปรอื่น , เอาค่าของตัวแปรมาแสดงผล

b4

- การอ้างถึงค่า args ตำแหน่งใดๆ โดยใช้สัญลักษณ์

b5 , b6

- เวลาเครื่อง %H ให้ค่าตั้งแต่ 0-23

(ดูรายละเอียดเพิ่มในคำสั่ง man date)

//ไม่เข้าใจว่าต่างกับ b5 ยังไง เพราะลองตัด # = อะไรทั้งหลายข้างล่างออกก็รันได้เหมือนกัน

// ส่วน fi เป็นโครงสร้างหนึ่งของการใช้ if ไม่มีต่อท้ายจะรันไม่ได้

b7, b8 , b9 , b10

- ตัวอย่างการใช้ if ต่างๆจำ

b11, b12 , b13 , b14 ,b15,b17,b19,b20

-การใช้ลูป while ต่างๆจำ

// b15 ลูป while สร้างไฟล์

// b16 ลูป while เปลี่ยนชื่อไฟล์ตามฟอร์แมตที่ต้องการ

// b17 ลูป while แสดง args ที่รับมาทุกตัวตัวละบรรทัด

// b18 ลูป while แสดง args เหมือน 17 แต่เติม _e.html

// b19 ไม่เข้าใจบรรทัดล่างๆ

// b20 วนลูปบอกว่า ไฟล์ xxx นี้มีอยู่แล้ว //งงว่าไม่มีไฟล์ก็รันออกมาได้ผลเหมือนกัน

- อย่าลืม ส่วนเรียกไลบรารี `#!/bin/bash`
- shift คือรันไปที่ args ตัวต่อไป
- การประกาศตัวแปรไม่ต้องใส่ type แบบ int x , string y ประกาศได้เลยว่าจะให้ = อะไร => x=100 / x="Hello" / x[1]="H"
- ไม่ต้องใส่ semicolon
- การอ้างถึงตัวแปรต้องใส่ \$ นำหน้า

► การรวมไฟล์ :: tar cvfz ชื่อไฟล์ที่ต้องการ.tar.gz ชื่อโฟลเดอร์ที่ใส่ไฟล์ที่จะรวมก่อน/

```
tar cvfz 590610601.tar.gz 590610601/
```

► การแตกไฟล์ :: tar xvfz ชื่อไฟล์.tar.gz

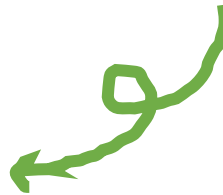
```
tar xvfz 590610601.tar.gz
```

► Permission Denied รันไม่ได้ :: chmod 755 file_name.sh

► หนึ่งคำที่มี space ต้องใส่ \ บอก ไม่งั้นมันจะถือว่าเป็นคนละคำ

เช่นการ cd เข้าโฟลเดอร์ที่มีชื่อแบบมีช่องว่าง (space bar) ระหว่างคำ หรือ สร้างโฟลด์เดอร์ที่มีชื่อเป็นคำแยกกัน

```
root@MR-A5MSBRFBL103:~/a# mkdir bash\ shell
root@MR-A5MSBRFBL103:~/a# ls
bash shell
root@MR-A5MSBRFBL103:~/a# mkdir bash shell
root@MR-A5MSBRFBL103:~/a# ls
bash bash shell shell
```



► เปลี่ยนชื่อไฟล์ /โฟลเดอร์

เช่น mv Lab1/ BasicLab1 //เปลี่ยนชื่อไฟล์จาก Lab1 เป็น BasicLab1 //อย่าลืมเว้นวรรคหลัง /

► Save file จาก vi

กด [Esc]

:x! ชื่อไฟล์ -->สร้างไฟล์ใหม่

:x! -> [ENTER] --> save

การใช้ if

```
if [ expression ]
then
    commands
elif [ expression ]
then
    commands
else
    commands
fi
```

การใช้ While loop

```
while [ expression ]
do
    commands
    ..... *
done
```

การใช้ for loop

```
for var in list
do
    commands
    ..... *
done
```

เช่น

```
#!/bin/bash
for i in 1 2 3 4 5
do
    echo "Loop $i"
done

//-----ข้างล่างคือ ผลจากการรัน -----

$ ./test.sh
Loop 1
Loop 2
Loop 3
Loop 4
Loop 5
```

B2

```
#!/bin/bash

age1=18
age2=25

echo "I am ${age1} years old"
echo "He is ${age2} years old"
~
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b2.sh
I am 18 years old
He is 25 years old
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B3

```
#!/bin/bash

age1=18
age2=`expr $age1 + 7`

echo "I am ${age1} years old"
echo "He is ${age2} years old"
b3.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b3.sh
I am 18 years old
He is 25 years old
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B4

```
#!/bin/bash

echo $@
echo $#
echo $0
echo $1
b4.sh (END)
```

\$@ = ค่า args ที่ใส่ลงไปทุกตัวหลังคำสั่งรัน ./b4.sh
\$# = จำนวน args ที่ใส่ลงไปหลังคำสั่งรัน ./b4.sh
\$0 = args[0] = คำสั่งรัน
\$1 = ค่าของ args[1]

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b4.sh 11 22 33
11 22 33
3
./b4.sh
11
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B5

```
#!/bin/bash

hour=`date +%H`

if [ "$hour" -lt 12 ]
then
    echo "AM:"
else
    echo "PM:"
fi
b5.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b5.sh
PM:
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B6

```
#!/bin/bash

hour=`date +%H`

if [ "$hour" -lt 12 ]
then
    echo "AM:"
else
    echo "PM:"
fi

# =
# !=
# -eq
# -ne
# -gt
# -ge
# -lt
# -le
b6.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b6.sh
PM:
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

```
#!/bin/bash

echo "Put the number: "
read num

if [ "$num" -lt 100 ]
then
    echo "$num is less than 100"
elif [ "$num" -lt 1000 ]
then
    echo "$num is less than 1000 and more than 100"
else
    echo "$num is more than 1000"
fi
b7.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b7.sh
Put the number:
123456789
123456789 is more than 1000
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

```
#!/bin/bash

echo "Put your score: "
read num

if [ "$num" -ge 0 -a "$num" -lt 7 ]
then
    echo "You have to Phayayamm much more!"
elif [ "$num" -ge 7 -a "$num" -lt 15 ]
then
    echo "Thammada!"
elif [ "$num" -ge 15 -a "$num" -le 20 ]
then
    echo "Great!"
else
    echo "Your score must be 0-20."
fi
b8.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b8.sh
Put your score:
500
Your score must be 0-20.
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b8.sh
Put your score:
19
Great!
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b8.sh
Put your score:
7
Thammada!
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B9

```
#!/bin/bash

echo "Write your teacher: "
read name

if [ "$name" = "Narathip" -o "$name" = "Thanyarak" ]
then
    echo "You are class A"
elif [ "$name" = "Somchai" -o "$name" = "Somsri" -o "$name" = "Somyot" ]
then
    echo "You are class B"
elif [ "$name" = "Tukky" -o "$name" = "Tsubasa" ]
then
    echo "Your are Johnny Junior's fan"
else
    echo "Unavailable!"
fi
b9.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b9.sh
Write your teacher:
Somchai
You are class B
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b9.sh
Write your teacher:
somchai
Unavailable!
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B10

```
#!/bin/bash

if [ "$1" = "" ]
then
    echo "Write your teacher'name in command line."
elif [ "$1" = "Narathip" -o "$1" = "Thanyarak" ]
then
    echo "You are class A"
elif [ "$1" = "Somchai" -o "$1" = "Somsri" -o "$1" = "Somyot" ]
then
    echo "You are class B"
elif [ "$1" = "Tukky" -o "$1" = "Tsubasa" ]
then
    echo "Your are Johnny Junior's fan"
else
    echo "Unavailable!"
fi
b10.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b10.sh
Write your teacher'name in command line.
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b10.sh Tsubasa
Your are Johnny Junior's fan
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b10.sh subasa
Unavailable!
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B11

```
#!/bin/bash

while [ "$1" != "" ]
do
    echo $1
    shift
done
b11.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b11.sh 555
555
```

B12

```
#!/bin/bash

num=3
while [ "$num" -lt 10 ]
do
    echo '$num' is '$num'
    num=`expr $num + 1`
done
b12.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b12.sh
$num is 3
$num is 4
$num is 5
$num is 6
$num is 7
$num is 8
$num is 9
```

B13

```
#!/bin/bash

num=$1
while [ "$num" -lt 10 ]
do
    echo '$num' is $num
    num=`expr $num + 1`
done
b13.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b13.sh
./b13.sh: line 4: [: : integer expression expected
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b13.sh 5
$num is 5
$num is 6
$num is 7
$num is 8
$num is 9
```


B14 // GUESS THE NUMBER !

```
#!/bin/bash

num=$RANDOM

echo "Put your favorite number: "

while true
do
    echo "Put --> 0-32767"
    read x
    if [ $x -gt $num ]
    then
        echo "less than your number!"
    elif [ $x -lt $num ]
    then
        echo "more than your number"
    else
        echo "OK!"
        break
    fi
done
b14.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b14.sh
Put your favorite number:
Put --> 0-32767
555
more than your number
Put --> 0-32767
```

B15 // CREATE TEMP.TXT FILE

```
#!/bin/bash

i=1
while [ "$i" -le 100 ]
do
    touch temp${i}.txt
    i=`expr $i + 1`
done
b15.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ls
a1.html  b18.sh  b3.sh      temp14.txt  temp25.txt  temp36.txt  temp47.txt  temp58.txt  temp69.txt  temp7.txt  temp90.txt
a2.html  b19.sh  b4.sh      temp15.txt  temp26.txt  temp37.txt  temp48.txt  temp59.txt  temp6.txt  temp80.txt  temp91.txt
a3.html  b1.sh   b5.sh      temp16.txt  temp27.txt  temp38.txt  temp49.txt  temp5.txt  temp70.txt  temp81.txt  temp92.txt
b10.sh   b20.sh  b6.sh      temp17.txt  temp28.txt  temp39.txt  temp4.txt  temp60.txt  temp71.txt  temp82.txt  temp93.txt
b11.sh   b21.sh  b7.sh      temp18.txt  temp29.txt  temp3.txt  temp50.txt  temp61.txt  temp72.txt  temp83.txt  temp94.txt
b12.sh   b22.sh  b8.sh      temp19.txt  temp2.txt  temp40.txt  temp51.txt  temp62.txt  temp73.txt  temp84.txt  temp95.txt
b13.sh   b22.txt b9.sh      temp1.txt  temp30.txt  temp41.txt  temp52.txt  temp63.txt  temp74.txt  temp85.txt  temp96.txt
b14.sh   b23.sh  temp100.txt temp20.txt  temp31.txt  temp42.txt  temp53.txt  temp64.txt  temp75.txt  temp86.txt  temp97.txt
b15.sh   b24.sh  temp10.txt  temp21.txt  temp32.txt  temp43.txt  temp54.txt  temp65.txt  temp76.txt  temp87.txt  temp98.txt
b16.sh   b25.sh  temp11.txt  temp22.txt  temp33.txt  temp44.txt  temp55.txt  temp66.txt  temp77.txt  temp88.txt  temp99.txt
b17.ls   b26.sh  temp12.txt  temp23.txt  temp34.txt  temp45.txt  temp56.txt  temp67.txt  temp78.txt  temp89.txt  temp9.txt
b17.sh   b2.sh   temp13.txt  temp24.txt  temp35.txt  temp46.txt  temp57.txt  temp68.txt  temp79.txt  temp8.txt
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B16

```
#!/bin/bash

i=1
while [ "$i" -le 100 ]
do
    if [ "$i" -lt 10 ]
    then
        num=00${i}
    elif [ "$i" -lt 100 ]
    then
        num=0${i}
    else
        num=${i}
    fi

    mv temp${i}.txt temp${num}.txt
    i=`expr $i + 1`
done
b16.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b16.sh
mv: 'temp100.txt' and 'temp100.txt' are the same file
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ls
a1.html  b1.sh    b7.sh    temp012.txt  temp026.txt  temp040.txt  temp054.txt  temp068.txt  temp082.txt  temp096.txt
a2.html  b20.sh   b8.sh    temp013.txt  temp027.txt  temp041.txt  temp055.txt  temp069.txt  temp083.txt  temp097.txt
a3.html  b21.sh   b9.sh    temp014.txt  temp028.txt  temp042.txt  temp056.txt  temp070.txt  temp084.txt  temp098.txt
b10.sh   b22.sh   temp001.txt  temp015.txt  temp029.txt  temp043.txt  temp057.txt  temp071.txt  temp085.txt  temp099.txt
b11.sh   b22.txt  temp002.txt  temp016.txt  temp030.txt  temp044.txt  temp058.txt  temp072.txt  temp086.txt  temp100.txt
b12.sh   b23.sh   temp003.txt  temp017.txt  temp031.txt  temp045.txt  temp059.txt  temp073.txt  temp087.txt
b13.sh   b24.sh   temp004.txt  temp018.txt  temp032.txt  temp046.txt  temp060.txt  temp074.txt  temp088.txt
b14.sh   b25.sh   temp005.txt  temp019.txt  temp033.txt  temp047.txt  temp061.txt  temp075.txt  temp089.txt
b15.sh   b26.sh   temp006.txt  temp020.txt  temp034.txt  temp048.txt  temp062.txt  temp076.txt  temp090.txt
b16.sh   b2.sh    temp007.txt  temp021.txt  temp035.txt  temp049.txt  temp063.txt  temp077.txt  temp091.txt
b17.ls   b3.sh    temp008.txt  temp022.txt  temp036.txt  temp050.txt  temp064.txt  temp078.txt  temp092.txt
b17.sh   b4.sh    temp009.txt  temp023.txt  temp037.txt  temp051.txt  temp065.txt  temp079.txt  temp093.txt
b18.sh   b5.sh    temp010.txt  temp024.txt  temp038.txt  temp052.txt  temp066.txt  temp080.txt  temp094.txt
b19.sh   b6.sh    temp011.txt  temp025.txt  temp039.txt  temp053.txt  temp067.txt  temp081.txt  temp095.txt
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B17

```
#!/bin/bash

while [ "$1" != "" ]
do
    name=`echo $1 | cut -f1 -d'.'`
    echo $1, $name
    shift
done
b17.sh (END)
```

Echo ในรูปแบบ

args ทั้งก่อน,args ก่อนเดิมแต่ตัดเอามาแค่ส่วนที่อยู่ก่อน (.)

(name=`echo \$1 | cut -f1 -d'.'`)

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b17.sh temp054.txt
temp054.txt, temp054
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b17.sh 555
555, 555
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b17.sh abc 123
abc, abc
123, 123
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b17.sh temp100.txt temp100.txt
temp100.txt, temp100
temp100.txt, temp100
```

B18

```
#!/bin/bash

while [ "$1" != "" ]
do
    name=`echo $1 | cut -f1 -d'.'`
    fname=${name}_e.html
    echo $1, $fname
    shift
done
b18.sh (END)
```

ผลคล้ายๆข้อ b17

args ทั้งก่อนที่ตัดช่วงหลัง (.) ทั้ง , เหมือนก่อนแรกแต่เติม _e.html

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b18.sh temp.txt
temp.txt, temp_e.html
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b18.sh temp100.txt 100
temp100.txt, temp100_e.html
100, 100_e.html
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B19

```
#!/bin/bash

while [ "$1" != "" ]
do
    name=`echo $1 | cut -f1 -d'.'`
    fname=${name}_e.html
    cat $1 > $fname
    mv $fname ~/public_html
    chmod 604 ~/public_html/$fname
    shift
done
b19.sh (END)
```

B20

```
#!/bin/bash

i=1
while [ "$i" -le 100 ]
do
    echo "***** ${i} *****"
    if [ temp0${i}.txt ]
    then
        echo "temp0${i}.txt already exists !"
    fi
    i=`expr $i + 1`
done
b20.sh (END)
```

```
***** 96 *****
temp096.txt already exists !
***** 97 *****
temp097.txt already exists !
***** 98 *****
temp098.txt already exists !
***** 99 *****
temp099.txt already exists !
***** 100 *****
temp0100.txt already exists !
```

B21

```
#!/bin/bash

i=1
while [ "$i" -le 100 ]
do
    echo "***** ${i} *****"
    if [ ! -e temp${i}.txt ]
    then
        touch tmp${i}.txt
    fi
    i=`expr $i + 5`
done
b21.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b21.sh
***** 1 *****
***** 6 *****
***** 11 *****
***** 16 *****
***** 21 *****
***** 26 *****
***** 31 *****
***** 36 *****
***** 41 *****
***** 46 *****
***** 51 *****
***** 56 *****
***** 61 *****
***** 66 *****
***** 71 *****
***** 76 *****
***** 81 *****
***** 86 *****
***** 91 *****
***** 96 *****
```

B22

```
#!/bin/bash

for file in tmp1.txt tmp4.txt tmp6.txt
do
    echo "*** ${file} ***"
done
b22.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b22.sh
*** tmp1.txt ***
*** tmp4.txt ***
*** tmp6.txt ***
```

B23

```
#!/bin/bash

for file in `ls tmp1.txt`
do
    echo "*** ${file} ***"
done
b23.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b23.sh
*** tmp1.txt ***
```

B24

```
#!/bin/bash

for file in $(ls tmp*.txt)
do
    echo "*** ${file} ***"
done
b24.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b24.sh
*** tmp11.txt ***
*** tmp16.txt ***
*** tmp1.txt ***
*** tmp21.txt ***
*** tmp26.txt ***
*** tmp31.txt ***
*** tmp36.txt ***
*** tmp41.txt ***
*** tmp46.txt ***
*** tmp51.txt ***
*** tmp56.txt ***
*** tmp61.txt ***
*** tmp66.txt ***
*** tmp6.txt ***
*** tmp71.txt ***
*** tmp76.txt ***
*** tmp81.txt ***
*** tmp86.txt ***
*** tmp91.txt ***
*** tmp96.txt ***
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```

B25

```
#!/bin/bash

for file in `ls tmp*.txt`
do
    i=`echo $file | sed -e "s/tmp/" | sed -e "s/.txt/"`

    if [ "$i" -lt 10 ]
    then
        num=00${i}
    elif [ "$i" -lt 100 ]
    then
        num=0${i}
    else
        num=${i}
    fi

    mv tmp${i}.txt tmp${num}.txt
done
b25.sh (END)
```

```
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ls
a1.html b12.sh b17.ls b20.sh b25.sh b4.sh b8.sh tmp1.txt tmp41.txt tmp66.txt tmp86.txt
a2.html b13.sh b17.sh b21.sh b26.sh b5.sh b9.sh tmp21.txt tmp46.txt tmp6.txt tmp91.txt
a3.html b14.sh b18.sh b22.sh b2_new.sh b6_new.sh b_e.html tmp26.txt tmp51.txt tmp71.txt tmp96.txt
b10.sh b15.sh b19.sh b23.sh b2.sh b6.sh tmp11.txt tmp31.txt tmp56.txt tmp76.txt
b11.sh b16.sh b1.sh b24.sh b3.sh b7.sh tmp16.txt tmp36.txt tmp61.txt tmp81.txt
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ./b25.sh
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell# ls
a1.html b12.sh b17.ls b20.sh b25.sh b4.sh b8.sh tmp011.txt tmp036.txt tmp061.txt tmp086.txt
a2.html b13.sh b17.sh b21.sh b26.sh b5.sh b9.sh tmp016.txt tmp041.txt tmp066.txt tmp091.txt
a3.html b14.sh b18.sh b22.sh b2_new.sh b6_new.sh b_e.html tmp021.txt tmp046.txt tmp071.txt tmp096.txt
b10.sh b15.sh b19.sh b23.sh b2.sh b6.sh tmp001.txt tmp026.txt tmp051.txt tmp076.txt
b11.sh b16.sh b1.sh b24.sh b3.sh b7.sh tmp006.txt tmp031.txt tmp056.txt tmp081.txt
root@MR-A5MSBRFBL103:~/BasicShellScript/source_shell#
```