

Decision statment

1 - if else statment

```
if (condition(s)) {  
    block ;  
} else {  
    block;  
}
```

```
if (condition (s)) {  
    ....  
} else {  
    if (condition) {  
    }  
}
```

what About this ?
if (x==1) ;

EX1 : write code to check if the number is even or odd

EX2 : write a program take score from user and check if :
score \geq 90 print A , score \geq 80 print B , score \geq 70 ,
and use logical && //

2- Switch ... case .. statment

check for int && char only
check for equal only
single check no &&
check against constant no var
ex, case 1

ex : write a program ask user
to enter number from 1 to 4
if the user enter 1 print you
press 1
use Switch case

simple menu

```
switch (x) {  
    case 1 :  
    {  
        block ;  
    }  
    case 2 :  
    {  
        block ;  
    }  
    default : // optional  
    {  
        block ;  
    }  
}
```

switch case has 2 scenairio

```
graph TD; A[switch case has 2 scenairio] --> B[Fall throught]; A --> C[fall out]
```

Fall throught

once a case is true
the execution will continue
inside the switch case
for the rest of the cases

until break

fall out

every case continue its
own break so only one case
will be excuted



Loops

*****if you know the number of iteration ??? called it Closed Loop

1- for Loop

```
for (counter start ; counter end , counter step ){  
    block  
}
```

ex : write a program to cal bank interest for given amount & years from user

ex : write a program to print the even numbers from 0 to 100

*****if you donot know the number of iteration ??? called it Open Loop

2- While Loop

```
while (condition ){  
  
}
```

check for condition before
executing code

do .. while

```
do {  
  
}while (condition );
```

execute code block first
and check for condition for repeat

ex1 : write a program take input from the user until the total will be 1000
(while loop)