

MODUL 3

IF

CASE

RELATIONAL

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D2H

To conditionally execute statements, you can use the if or the if...else statement.

The general form of the if statement is

```
if(expr) {  
    s1 ;  
    s2 ;  
    ....  
}
```

expr is a Boolean expression that returns true (nonzero) or false (zero).

```
#include <stdio.h>
```

```
main(){  
    int i = 3,j = 5;  
    if(i < j){  
        printf("i < j \n");  
    }  
}
```

The general format for the if-else if statement is:

```
if (condition 1)  
    simple or compound statement  
else if (condition 2)  
    simple or compound statement  
else if ( condition 3)  
    simple or compound statement  
.....  
else if ( conditon n )  
    simple or compound statement
```

```
#include <stdio.h>
```

```
main(){  
    int i = 2;  
    if(i == 0){  
        printf(" i == 0. \n");  
    } else if(i == 1){  
        printf(" i == 1. \n");  
    } else if(i == 2){  
        printf(" i == 2. \n");  
    }  
}
```

To take one of a number of possible actions.

switch is preferred over multiple if...else statements.

The general form of a switch statement is

```
switch(switch_expr)
{
    case constant expr1 : S1;
                        S2;
                        break;
    case constant expr1 : S3;
                        S4;
                        break;
    .....
    default              : S5;
                        S6;
                        break;
}
```

```
#include <stdio.h>
```

```
main(){
```

```
    int iResponse = 0;
    printf("\nPlease select a category (1-4): ");
    scanf("%d", &iResponse);
```

```
    switch (iResponse) {

        case 1:
            printf("\nYou selected 1\n");
            break;
        case 2:
            printf("You selected 2\n");
            break;
        case 3:
            printf("You selected 3\n");
            break;
        case 4:
            printf("You selected 4\n");
            break;
    }
```

```
}  
}
```

Comparison
Meaning or Pronunciation
"True" Example

< Less than
1 < 5, 8 < 9

==
Equal to
7 == 7, 1 == 1

> Greater than
7 > 5, 10 > 0

<= Less than or equal to
4 <= 5, 8 <= 8

>= Greater than or equal to
6 >= 5, 2 >= 2

!= Not equal to
1 != 0, 1 != 3.99

if Comparison	else Statement Executed By This Condition
<	>=
==	!=
>	<=
<=	>

>=	<
!=	==

```
#include <stdio.h>
```

```
main()  
{
```

```
    int iResponse = 0;
```

```
    printf("Enter a number from 1 to 10: ");  
    scanf("%d", &iResponse);
```

```
        if ( iResponse < 1 || iResponse > 10 )  
            printf("\nNumber not in range\n");
```

```
        else  
            printf("\nThank you\n");
```

```
}
```