

Lecture Note: 9

if statement

Statement execute set of command like when condition is true and its syntax is

```
    If (condition)
Statement;
```

The statement is executed only when condition is true. If the if statement body is consists of several statement then better to use pair of curly braces. Here in case condition is false then compiler skip the line within the if block.

```
void main()
{
    int n;
    printf (" enter a number:");
    scanf("%d",&n);
    If (n>10)
    Printf(" number is grater");
}
```

Output:

```
Enter a number:12
Number is greater
```

if.....else ... Statement

it is bidirectional conditional control statement that contains one condition & two possible action. Condition may be true or false, where non-zero value regarded as true & zero value regarded as false. If condition are satisfy true, then a single or block of statement executed otherwise another single or block of statement is executed.

Its syntax is:-

```
if (condition)
{
Statement1;
Statement2;
}
else
{
Statement1;
Statement2;
}
```

Else statement cannot be used without if or no multiple else statement are allowed within one if statement. It means there must be a if statement with in an else statement.

Example:-

```
/* To check a number is eve or odd */
```

```

void main()
{
    int n;
    printf ("enter a number:");
    scanf ("%d", &n);
    If (n%2==0)
        printf ("even number");
    else
        printf("odd number");
}

```

Output: enter a number:121

odd number

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Nesting of if ...else

When there are another if else statement in if-block or else-block, then it is called nesting of if-else statement.

Syntax is :-

```

    if (condition)
    {

```

```

        If (condition)
            Statement1;
    else
        statement2;
    }
        Statement3;

```

If...else LADDER

In this type of nesting there is an if else statement in every else part except the last part. If condition is false control pass to block where condition is again checked with its if statement.

Syntax is :-

```

        if (condition)
            Statement1;
    else if (condition)
        statement2;
    else if (condition)
        statement3;
    else
        statement4;

```

This process continue until there is no if statement in the last block. if one of the condition is satisfy the condition other nested “else if” would not executed.

But it has disadvantage over if else statement that, in if else statement whenever the condition is true, other condition are not checked. While in this case, all condition are checked.

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ARRAY

Array is the collection of similar data types or collection of similar entity stored in contiguous memory location. Array of character is a string. Each data item of an array is called an element. And each element is unique and located in separated memory location. Each of elements of an array share a variable but each element having different index no. known as subscript.

An array can be a single dimensional or multi-dimensional and number of subscripts determines its dimension. And number of subscript is always starts with zero. One dimensional array is known as vector and two dimensional arrays are known as matrix.

ADVANTAGES: array variable can store more than one value at a time where other variable can store one value at a time.

Example:

```
int arr[100];
```