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if-else statement
switch statement
for statement
while statement

Simple if statement

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```
if (<boolean expression>
    statement1;
statement2;
statement3;
```

A store gives discount of 5% on purchase of 100 items or more.
Calculate the total price, given ITEMS and PRICE.

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```
scanf( "%d %f",  &ITEM,    &PRICE);
```

```
If ( ITEMS > =100)
```

```
    PRICE = 0.95 * PRICE
```

```
TOTAL = ITEMS * PRICE
```

Printing floating point values

```
float priceA, priceB;  
printf("Please enter the prices of A and B:");  
  
scanf("%f %f", &priceA, &priceB );  
  
if ( priceA > priceB )  
    {printf( "\n item A costlier");  
     printf( "A costs Rs. %f . ", priceA);  
    }  
  
else  
    printf( "\n item A NOT costlier. ");
```

Exercise:

Compute income tax for a person as per following table:

income $\leq$ 1,00,000

: no tax

income between 1,00,000 and
3,00,000

: 10% of income

income between 3,00,000 and
8,00,000

: 20% of income

income above 8,00,000

: 30% of income

```
int marks;  
scanf( " %d ", &marks);  
switch (marks)  
{  
case 10: printf( " grade    = 'A' ");  
        break;  
case 9:    
case 8:  printf( " grade    = 'B' ");  
        break;  
case 7:  printf( " grade    = 'C' ");  
        break;  
case 6:  printf( " grade    = 'D' ");  
        break;  
default: printf( " grade    = 'F' ");  
}
```

The real power of computers is in their ability to repeat an operation or a series of operations many times

This repetition, called **looping**, is one of the basic structured programming concepts.

The looping can be done for a fixed number of times,

for loop

or dependent on satisfaction of some condition

while loop.