switch - case :- **multiple choice**

syntax

```
switch ( variable )
{
    case  1 :  statements
               -_____
               break;
    case  2 :  statements
               -_____
               break;
    case  3 :  statements


               break;
               .
    case  n :  statements
               break;
    default  : printf(" INVALID CHOICE \n ");
}
```

---

case VARIABLE --> integer , char

case 1 :

case 'a' :

---

case 3.2 : float ----> X

PRINT → 1. monday

.

7 . sunday

-_____

```
#include<stdio.h>
    int main()
    {
        int d;
        printf(" ENTER CHOICE ( 1 - 7) \n " );
        scanf("%d", &d);
        switch (d)
        {
            case 1 : printf(" MONDAY " ) ; break;
            case 2 : printf(" TUESDAY " ); break;
```

```
                case  3 :  printf(" WEDNESDAY " ); break;
                case  4 :  printf(" THUSDAY " );   break;
                case  5 :  printf(" FRIDAY " );    break;
                case  6 :  printf(" SAT " );       break;
                case  7 :  printf(" SUN " );       break;
                default  : printf(" INVALID CHOICE \n " );
        } // switch
  }
```

2. PRINT 0. ZERO 1. ONE .....9. NINE

```
#include<stdio.h>
    int  main()
    {     int  d;
          printf(" ENTER CHOICE BETWEEN 0 TO 9 \n " );
          scanf("%d", &d);
              switch (d)
              {
                 case  0 :  printf(" ZERO ");      break;
                 case  1 :  printf(" ONE " ) ;     break;
                 case  2 :  printf(" TWO " );      break;
```

```
                case  3 :  printf(" THREE " );     break;
                case  4 :  printf(" FOUR " );      break;
                case  5 :  printf(" FIVE " );      break;
                case  6 :  printf(" SIX " );       break;
                case  7 :  printf(" SEVEN " );     break;
                case  8 :  printf(" EIGHT " );     break;
                case  9 :  printf(" NINE " );      break;
                default  : printf(" INVALID CHOICE \n " );
            } // switch
  }
```

3. MENU DRIVEN AIRTHMATIC OPERATION

```
#include<stdio.h>
int   main()
{
            int  a , b , c , d;
            printf(" ENTER TWO NOS \n " );
            scanf("%d%d", &a, &b);
            printf("   MENU \n" );
```

```
            printf(" 1. ADD \n" );
            printf(" 2. SUB \n" );
            printf(" 3. MUL \n" );
            printf(" ENTER CHOICE \n ");
            scanf("%d", &d);
        switch (d)
        {
            case  1 :   c = a + b ;
                        printf(" SUM = %d\n " , c);
                        break;
            case 2  :  c = a - b;
                       printf(" SUB = %d\n" , c);
                       break;
            case   3 :  c = a * b ;
                        printf(" MUL = %d\n" , c);
                        break;
            default  : printf(" INVALID CHOICE \n " );
         } // switch
    }
```

INFINITE LOOP

1. while (1) // NON - ZERO --> TRUE
2. for(;;)

PROGRAM TERMINATION

exit(0) ---> stdlib.h

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
        int  a , b , c , d;
        printf(" ENTER TWO NOS \n " );
        scanf("%d%d", &a, &b);
        while(1)    // infinite loop
        {
                printf("   MENU \n" );
                printf(" 1. add \n" );
                printf(" 2. SUB \n" );
```

```
            printf(" 3. MUL \n" );
            printf(" 4. EXIT \n");
            printf(" ENTER CHOICE \n ");
            scanf("%d", &d);
        switch (d)
        {
            case  1 :   c = a + b ;
                        printf(" SUM = %d\n " , c);  break;
            case  2 :   c = a - b;
                        printf(" SUB = %d\n" , c);      break;
            case  3 :   c = a * b;
                       printf(" MUL = %d\n" , c); break;

            case  4 :   exit(0);      // stdlib.h

            default  :  printf(" INVALID CHOICE \n " );
         } // switch

    } // while
}
```

5. MENU DRIVEN PROGRAM FOR AITHMATIC OPERATION

```
#include<stdio.h>
#include<stdlib.h>
int
{   int      a , b , c ;
      char d;
     printf(" ENTER TWO NOS \n " ); scanf("%d%d", &a, &b);
     while(1) // infinite loop
{
     printf("      MENU \n" ); printf(" '+' \n" );
     printf(" '-' \n" );
     printf(" '*' \n" );
     printf(" 'E': EXIT \n");

     printf("      MENU \n" ); printf(" '+' \n" );
     printf(" '-' \n" );
     printf(" '*' \n" );
     printf(" 'E': EXIT \n");
     printf(" ENTER CHOICE \n "); fflush(stdin);
     scanf("%c", &d);
```

```
printf(" ENTER CHOICE \n ");
fflush(stdin);
scanf("%c", &d);
```

```
        switch (d)
        {
                case  '+'  :   c = a + b ;
                               printf(" SUM = %d\n " , c);
                               break;

                case  '-'  :   c = a - b;
                               printf(" SUB = %d\n" , c);
                               break;

                case   '*' :  c = a * b;
                               printf(" MUL = %d\n" , c);
                               break;
                case   'E' :case   'e' :  exit(0);      // stdlib.h

                default  :  printf(" INVALID CHOICE \n " );

        } // switch
} // while
```

6. WAP FOR CHECK INPUT CHARACTER IS VOWEL OR CONSONENT.

```
#include<stdio.h>
int    main()
{
        char   d;
        printf(" ENTER CHARACTER \n " );
        scanf("%c", &d);
        switch (d)
        {
                    case  'a' :case  'e' :case  'i' :     case  'o' :  case  'u' :

                    case  'A' :  case  'E' :   case 'I' : case 'O' : case 'U' :

                          printf(" VOWELS " ); break;

                   default  :   printf(" CONSONENT \n " );
        }
   }
```