

C LANGUAGE

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CRS :- Customer Requirement Specification

SRS :- software Requirement Specification

KT :- Knowledge Transfer

- **TYPES OF SOFTWARE :**

- 1) System software
- 2) Programming software
- 3) Application software

- **APPLICATION SOFTWARE :**

- 1) Web app
- 2) Mobile app (ex :- instagram , whatsapp, facbook)
- 3) System app (ex :- word , excel)

- **SDLC :- SOFTWARE DEVELOPER LIFE CYCLE**

- 1) Planning
- 2) Implementation (coding)
- 3) Testing
- 4) Documentation
- 5) Deployment (Live :- mobile app,play store)
- 6) Ongoing support and maintaince

=> FLOWCHART :- FLOWCHART IS A GRAPHICAL REPENSTATION OF A PROGRAM.

=> VARIABLE :- VARIABLE IS A STORAGE CONTAINER OF A SPECIFICE TYPES.

=> IDENTIFIER :- IDENTIFIER IS A NAME OF VARIABLE.

=> KEYWORD :- KEYWORD IS A SPECIAL WORD WHOSE MEANING IS ALREADY STORAGE IN THE COMPILER.

- **TYPES OF OPOPERATER :**

- 1) Arithmetic Opperater :- (+ , - , * , / , %)
- 2) Relational Opperater :- (> , < , >= , <= , == , !=)
- 3) Assignment Opperater:- (= , += , -= , *= , /= , %=)
- 4) Logcal Opperater :- (&& , || , !)

=> FUNCTION :- FUNCTION IS A BLOCK OF CODE WE HAVE THE MAIN BUSINESS LOGIC IS RETURN.

=> DATATYP IS TYPE OF DATA.

DATA TYPE :- (Int , float , double , char , long int , long double , etc....)

=> TYPE CASTING CONVERT ONE TYPE DATA IN TO ANOTHER .

- **TYPES OF CONTROL STATEMENT:**

- 1) If
- 2) If else

- 3) Nasted if
- 4) Else if ladder
- 5) Switch

1) **If (condition ? True statement : false statement);**

2) **If - else**

```
if (condition)
printf("_____");
```

```
else
printf("_____");
```

3) **Nasted if** (if ke andar if // greatest of 3 number)

```
if (condtion)
{
    If (condition)
    printf("_____");
    else
    printf("_____");
}
```

```
else
{
    if (condtion)
    printf("_____");
    else
    printf("_____");
}
```

4) **Else if ladder**

```
if (condition)
{
    printf("_____");
}
else if (condition)
{
    printf("_____");
}
else if (condition)
{
    printf("_____");
}
```

```
else
printf("_____");
```

5) **Switch** (you can select the option by using switch case)

```
switch (variable)
{
    case 1:
    printf("_____");
    break;
```

```
case 2:
printf("_____");
break
```

```
default:
printf("_____");
break;
}
```

- **LOOP :**

TYPES OF LOOP :

- 1) For loop
- 2) While loop
- 3) Do while loop

- 1) **FOR LOOP**

FOR (initialization ; condition ; incree\ decrement)

- 2) **WHILE LOOP**

```
initialazition
while(condition)
{
    printf("_____");
    (increment );
}
```

- 3) **DO WHILE LOOP**

```
initialazition
do
{
    printf("_____");
    increment
} WHILE(condition)
```

- **DEFERENT BETWEEN WHILE AND DO WHILW LOOP.**

WHILE :- First condition is checked and than statement is print.

DO WHILE :- First statement is print and than condition is check.

- **ARRAY**

=> **Array** :- Array is collection of data of similar typs.

=> Array will always start with 0.

=> **Array declction.**

```
int a[]={1,2,3,4,5,6};
int a[10];
```

=> **TYPES OF ARRAY.**

- 1) 1-D (dimension)
- 2) 2-D (matrix)

2) 2-D ARRAY

=> First row and first column is same.

- **STRING**

STRING : String is group of character .

=> String me space print nahi hoti so **scanf** ki jagah pe **gets(a)**.

Scanf ----> **gets(a);**

Printf -----> **puts(a);**

=> **FUNCTION OF STRING**

- 1) Strrev
- 2) Strcmp
- 3) Strcpy
- 4) Strlwr
- 5) Strupr
- 6) Strcat
- 7) Strlen

TYPES OF FUNCTION :

- 1) Inbuilt / predefined / library
- 2) User defined

THERE ARE FOUR WAY TO WRITE FUNCTION :

- 1) Function without parameter and without return type.
- 2) Function with parameter and without return type.
- 3) Function without parameter and with return type.
- 4) Function with parameter type and without return.

STAGE OF FUNCTION :

- 1) Declaration
- 2) Definition
- 3) Calling

- **UNION :**

=> union unites all the variable and store it in same address.

=> union have same address of all variable.