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1. conversion of character to decimal

Algorithm:-

Step 1: Start

Step 2: Declare a variable 'a' as integer and character 'c'.

Step 3: Read c

Step 4: Assign a = c

Step 5: Display the 'a' as a result

Step 6: Stop

Pseudocode:

Step 1: Start

Step 2: Read and declare the integer and character variable.

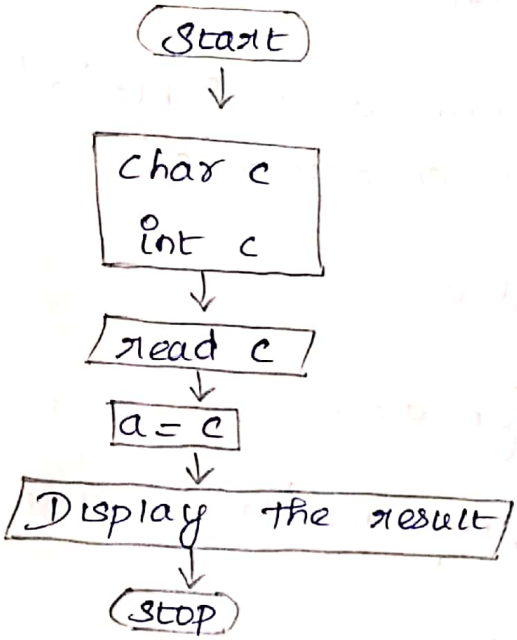
```
char c;
int a;
Printf("\n Enter the character");
scanf("%c", &c);
```

Step 3: Assign a = c ;

Step 4: display the result

printf("\n the value of c in decimal")

Flow chart



Program

```
# include <stdio.h>
# include <conio.h>
void main ( )
{
    char c ;
    int a ;
    printf ("\n Enter the character ");
    scanf ("%.c", &c);
    a = c ;
    printf ("\n the decimal value of given
    charcter is = %.d", a);
    getch ( );
}
```

2. Conversion of Decimal to character

Algorithm

Step 1: Start

Step 2: Declare the integer variable a and character variable c.

Step 3: read a

Step 4: Assign c = (char) a

Step 5: display the result

Step 6: stop.

Pseudocode

Step 1: declare two variable

```
int a;
char c;
```

Step 2: read 'a'

```
scanf("%d", &a);
```

Step 3: Assign

```
c = (char) a
```

Step 4: display the result

```
printf("\n the value of decimal in
        character %c", c);
```

Flow chart:

Start

int a; char c;

read a

c = (char) a

Display the result

stop

program:

```
# include <stdio.h>
# include <conio.h>
void main()
{
    int a;
    char c;
    printf("\n enter the decimal number:");
    scanf("%d", &a);
    c = (char) a
    printf("\n The value of the decimal in cha
            %c, c);
    getch()
}
```

3. Base Conversion

Algorithm

step 1: start

step 2: Declare integer variable i=0, n, b, j, r[]

step 3: Using while loop with condition n>0

step 4: Do the statement n%.b and n=n/b until condition fails.

step 5: Using for loop for the condition j=i-1 and j>=0, j-- and print result until condition fails.

step 6: stop.

Pseudocode:

step 1: Declare variable

```
int i=0, j>=n, b, r[i];
```

step 2: Using while loop having condition

```
while (n>0)
```

step 3: {

```
n [i++] = n%.b
    n   = n/b;
```

}

step 4: Using for loop having condition

```
for (j = i-1; j>=0, j++).
{
  printf ("%d", r[j]);
}
```

Step 5 : Display the result.

Start

Declare int i=0, j, b, n, r[i]

read n

n > 0

n[i++] = n % b

n = n / b

j = i - 1

j >= 0

Print("%d", r[j]);

i++

stop.

Program

```
#include<stdio.h>
void main()
{
    int i=0, n, b, j=0, r[i];
    printf("enter the decimal number:");
    scanf("%d", &a);
    printf("enter the base:");
    scanf("%d", &b);
    while(n>0)
    {
        r[i++] = n % b
        n = n/b;
    }
    for(j=i-1, j>=0, j--)
    }
    getch();
}
```