

Usage of Pointers

Ex No: 8

a] WAP to create, initialize, assign and access a pointer variable

Aim: To create initialize assign and access pointer

Algorithm:

step 1: start

step 2: Use pointer variable

step 3: Display the required output

step 4: stop

Program,

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
int num;
```

```
int *num;
```

```
pnum = &num;
```

```
num = 100;
```

```
printf("Using variable num: \n");
```

```
printf("Variable of num: %d In address of  
num: %u\n", num, &num);
```

```
printf("Using pointer variable: \n");
```

```
printf("Value of num: %d In address of  
num %u\n", *pnum, pnum);
```

```
}
```

Result: The program has been ~~Exeuted~~ Executed successfully.

Output

Using pointer variable

Value of num: 100

address of num: 1297150612

Using variable num

Value of num: 100

Address of num: 1297150612

6] WAP to Swap 2 values by using call by reference mechanism with/without using 3 variable

Aim: To write program to swap 2 values using call by reference mechanism with/without using 3rd variable.

Algorithm:

- Step 1: start the program
- Step 2: Use the Required variable
- Step 3: Swap the 2 variable
- Step 4: Display the Required output
- Step 5: stop the program

Program

```
#include <stdio.h>
void main
{
    int a, b;
    int *x, *y;
    printf("Enter 2 values");
    scanf("%d %d", &a, &b);
    x = &a;
    y = &b;
    void swap(int *x, int *y)
    {
        int temp;
        temp = *x;
        *x = *y;
        *y = temp;
        return;
    }
    printf("value of a before swapping is %d", a);
    printf("value of b before swapping is %d", b);
    swap(&a, &b);
    printf("the value of 'a' after swapping is %d", a);
}
```

Output

Enter 'a' value : 4

Enter 'b' value : 5

value of 'a' after swapping: 5

value of 'b' after swapping: 4

```
printf("value of 'b' after swapping  
%d/n", *y);
```

y

Result

This program

Result

This program has been executed
successfully.