**Array Insertion**

**Aim:**

Program to insert an element into an Array

**Code:**

void main()

{

int i, size, x, pos;

int arr[] = {2, 4, 6, 8, 12};

size = sizeof(arr)/sizeof(arr[0]);

printf("The array elements before insertion operation:\n");

for(i = 0; i < size; i++)

printf("arr[%d] = %d\n",i, arr[i]);

printf("\nEnter the element to be insert: ");

scanf("%d", &x);

printf("\nEnter the position where you wish to insert the element: ");

scanf("%d", &pos);

size = size + 1;

printf("\nThe array elements after insertion operation are:\n");

for(i = size - 1; i >= pos - 1; i--)

arr[i+1] = arr[i];

arr[pos-1] = x;

for(i = 0; i < size; i++)

printf("arr[%d] = %d\n",i, arr[i]);

}

**Output:**

The array elements before insertion operation:

arr[0] = 2

arr[1] = 4

arr[2] = 6

arr[3] = 8

arr[4] = 12

Enter the element to be insert: 10

Enter the position where you wish to insert the element: 5

The array elements after insertion operation are:

arr[0] = 2

arr[1] = 4

arr[2] = 6

arr[3] = 8

arr[4] = 10

arr[5] = 12

**Array Deletion**

**Aim:-**

Program to delete an element from an array

**Code:**

void main()

{

int i, size, pos;

int a[] = {2, 4, 6, 8, 12};

size = sizeof(a)/sizeof(a[0]);

printf("The array elements before deletion operation:\n");

for(i = 0; i < size; i++)

printf("a[%d] = %d\n", i, a[i]);

printf("\nEnter the position from where you wish to delete the element: ");

scanf("%d", &pos);

printf("\nThe array elements after deletion operation are:\n");

for(i = pos - 1; i < size; i++)

a[i] = a[i+1];

size = size - 1;

for(i = 0; i < size; i++)

printf("a[%d] = %d\n", i, a[i]);

}

**Output:**

The array elements before deletion operation:

a[0] = 2

a[1] = 4

a[2] = 6

a[3] = 8

a[4] = 12

Enter the position from where you wish to delete the element: 3

The array elements after deletion operation are:

a[0] = 2

a[1] = 4

a[2] = 8

a[3] = 12

**Array Traversal**

**Aim:-**

Program to traverse array elements

**Code:**

void main()

{

int i, size;

int arr[] = {1, -9, 17, 4, -3}; //declaring and initializing array "arr"

size = sizeof(arr)/sizeof(arr[0]); //sizeof(arr) will give 20 and sizeof(arr[0]) will give 4

printf("The array elements are: ");

for(i = 0; i < size; i++)

printf("\narr[%d]= %d", i, arr[i]);

}

**Output:**

The array elements are:

arr[0]= 1

arr[1]= -9

arr[2]= 17

arr[3]= 4

arr[4]= -3