6 June

**Create Write a program in C to rotate an array by N positions.**

#include <stdio.h>

void shiftArr1Pos(int \*arr1, int arrSize)

{

int i, temp;

temp = arr1[0];

for(i = 0; i < arrSize-1; i++)

{

arr1[i] = arr1[i+1];

}

arr1[i] = temp;

}

void arr1Rotate(int \*arr1, int arrSize, int rotFrom)

{

int i;

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

{

shiftArr1Pos(arr1, arrSize);

}

return;

}

int main()

{

int arr1[] = {0,3,6,9,12,14,18,20,22,25,27};

int ctr = sizeof(arr1)/sizeof(arr1[0]);

int i;

//---------- print original array ------------------------

printf("The given array is : ");

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

{

printf("%d ", arr1[i]);

}

printf("\n");

//---------- print the values from 4th position ------------------------

printf("From 4th position the values of the array are : ");

for(i = 4; i < ctr; i++)

{

printf("%d ", arr1[i]);

}

printf("\n");

//---------- print the values before 4th position ------------------------

printf("Before 4th position the values of the array are : ");

for(i = 0; i < 4; i++)

{

printf("%d ", arr1[i]);

}

printf("\n");

//------------ after rotating the array --------------------

arr1Rotate(arr1, ctr, 4);

printf("\nAfter rotating from 4th position the array is: \n");

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

{

printf("%d ", arr1[i]);

}

return 0;

}

Output:

The given array is : 0 3 6 9 12 14 18 20 22 25 27

From 4th position the values of the array are : 12 14 18 20 22 25 27

Before 4th position the values of the array are : 0 3 6 9

After rotating from 4th position the array is:

12 14 18 20 22 25 27 0 3 6 9