**SELECTION SORT**

**CODE:**

// C program for implementation of selection sort

#include <stdio.h>

void swap(int\* xp, int\* yp)

{

int temp = \*xp;

\*xp = \*yp;

\*yp = temp;

}

void selectionSort(int arr[], int n)

{

int i, j, min\_idx;

// One by one move boundary of unsorted subarray

for (i = 0; i < n - 1; i++) {

// Find the minimum element in unsorted array

min\_idx = i;

for (j = i + 1; j < n; j++)

if (arr[j] < arr[min\_idx])

min\_idx = j;

// Swap the found minimum element with the first

// element

swap(&arr[min\_idx], &arr[i]);

}

}

/\* Function to print an array \*/

void printArray(int arr[], int size)

{

int i;

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

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

printf("\n");

}

// Driver program to test above functions

int main()

{

int arr[] = { 64, 25, 12, 22, 11 };

int n = sizeof(arr) / sizeof(arr[0]);

selectionSort(arr, n);

printf("Sorted array: \n");

printArray(arr, n);

return 0;

}

**OUTPUT:**

