**Name: Saif Alam**

**Roll: 61, CSBS**

**Practical 4 ITW**

**Aim:** Write a MATLAB Program For Bubble Sort.

**Program:**

arr = [5, 3, 1, 4, 2];

n = length(arr);

for i = 1:n

swapped = false;

for j = 1:(n - i)

if arr(j) > arr(j + 1)

% Swap elements

temp = arr(j);

arr(j) = arr(j + 1);

arr(j + 1) = temp;

swapped = true;

end

end

% If no two elements were swapped in inner loop, the array is sorted.

if ~swapped

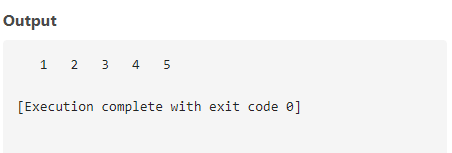
break;

end

end

disp(arr);

**Output:**

****