

Class dated 12/07/2021

To insert an element in an array:

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

```
int main()
```

```
{
```

```
    int arr[5] = {10,20,40,50}; //10,20,40,50,50 // 10,20,40,40,50 //10,20,30,40,50
```

```
    int val = 30;
```

```
    int p;
```

```
    printf("org arr\n");
```

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

```
    {
```

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

```
    }
```

```
    //to determine the pivot index to insert
```

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

```
    {
```

```
        if(val<arr[i])
```

```
        {
```

```
            p = i;
```

```
            break;
```

```
        }
```

```
    }
```

```
    //to move remaining elements to the right side
```

```
    for(int i=4;i>p;i--)
```

```
    {
```

```
        arr[i] = arr[i-1];
```

```
    }
```

```
    //to insert new element in its appropriate place
```

```
    arr[p]=val;
```

```
    //to print the array
```

```
    printf("\nafter insertion\n");
```

```
    for(int i=0;i<5;i++)
```

```
    {
```

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

```
    }
```

```
    return 0;
```

```
}
```