

Java

① Write a C program to search for a key element using linear search.

② Write a C program to sort the numbers using selection sort and bubble sort.

① ~~#include <stdio.h>~~

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void main()

```
{
    int a[10];
    int i, n, key;
```

printf("Enter the number of elements");

scanf("%d", &n);

printf("Enter the elements");

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

{

scanf("%d", &a[i]);

}

printf("Key element");

scanf("%d", &key);

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

{

if(key == a[i])

{

printf("The key found %d", i);

}

exit(0);

{

printf("The key not found");

}

}

Output :-

Enter the number of elements 4

Enter the elements

1 2 3 4

Key element 3

the Key found 2

② Bubble sort :-

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

```
void main()
```

```
{
```

```
    int a[10];
```

```
    int n, temp, i, j;
```

```
    printf("Enter the number of element ");
```

```
    scanf("%d", &n);
```

```
    printf("Enter the elements");
```

```
    for(i=0; i<n; i++)
```

```
    {
```

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

```
        {
```

```
            if(a[i] > a[j])
```

```
            {
```

```
                temp = a[i]
```

```
                a[i] = a[j]
```

```
                a[j] = temp;
```

```
            }
```

```
        }
```

```
    printf("The sorted elements are ");
```

```
    for(i=0; i<n; i++)
```

```

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

```

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Output:-

Enter the number of elements 5

Enter the elements 8 5 5 7 4

The sorted elements are 4 5 5 7 8

[Signature]

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0 1 0 0
1 1 0 0
2 1 0 0
3 1 0 0
4 1 0 0
5 1 0 0
6 1 0 0
7 1 0 0
8 1 0 0
9 1 0 0

9 1
10 10
11 10
12 10
13 10
14 10
15 10
16 10
17 10
18 10
19 10