

```
/*array insertion*/
```

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

```
int main()
```

```
{
```

```
    int n,i,key,location;
```

```
    printf("enter the value of n\n");
```

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

```
    int a[n];
```

```
    printf("enter the values of array\n");
```

```
    {
```

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

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

```
    }
```

```
    printf("your entered array elements are\n");
```

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

```
    {
```

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

```
    }
```

```
    printf("enter the location of new element to be inserted\n");
```

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

```
    printf("enter the value of new element to be inserted\n");
```

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

```
    n++;
```

```
    i=n-1;
```

```
    while(i>=location)
```

```
    {
```

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

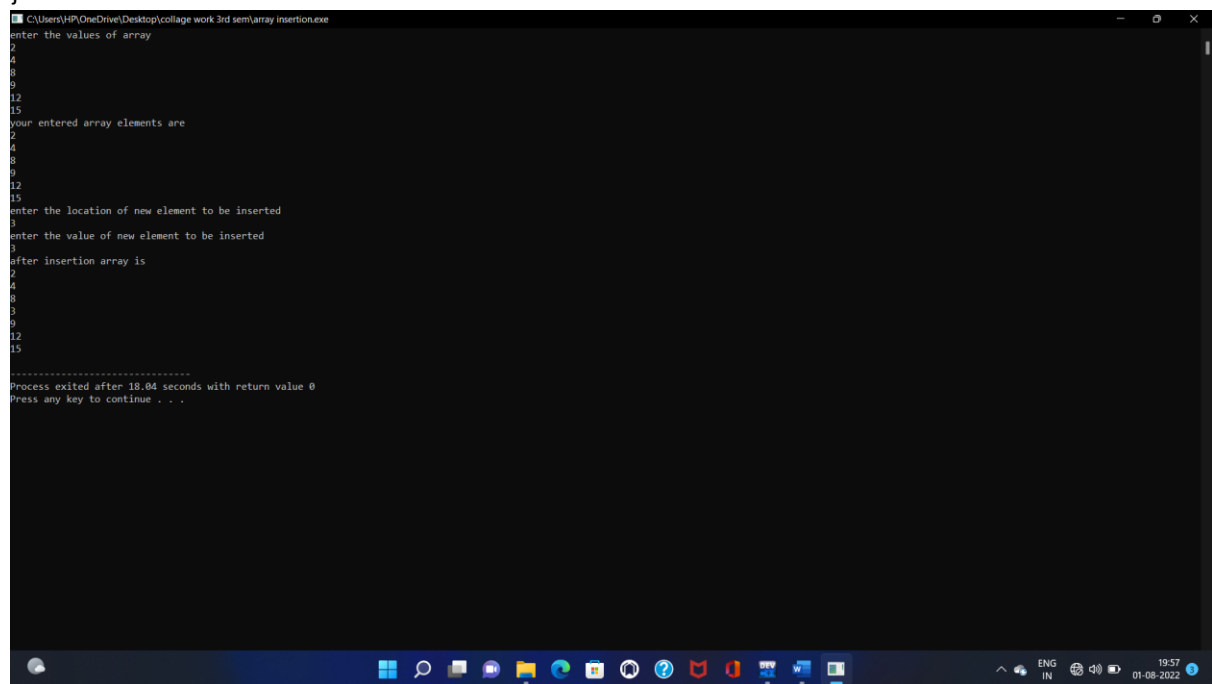
```
        i--;
```

```
    }
```

```
    a[location]=key;
```

```
    printf("after insertion array is\n");
```

```
for(i=0;i<n;i++)  
{  
printf("%d\n",a[i]);  
}  
return 0;  
}
```



The screenshot shows a Windows command prompt window titled "C:\Users\HP\OneDrive\Desktop\collage work 3rd sem\array insertion.exe". The program prompts the user to "enter the values of array" and lists indices 2, 4, 8, 9, 12, 15. The user enters the values 2, 4, 8, 9, 12, 15. The program then prompts for the "location of new element to be inserted" (index 3) and the "value of new element to be inserted" (3). After insertion, the array is displayed as 2, 4, 3, 8, 9, 12, 15. The program exits after 18.04 seconds with return value 0, and prompts the user to "Press any key to continue . . .".

```
C:\Users\HP\OneDrive\Desktop\collage work 3rd sem\array insertion.exe  
enter the values of array  
2  
4  
8  
9  
12  
15  
your entered array elements are  
2  
4  
8  
9  
12  
15  
enter the location of new element to be inserted  
3  
enter the value of new element to be inserted  
3  
after insertion array is  
2  
4  
3  
8  
9  
12  
15  
-----  
Process exited after 18.04 seconds with return value 0  
Press any key to continue . . .
```