

Worksheet –3

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SEM – 3RD
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Ques : 1

Write a program to print the total number of occurrences of a given item in the linked list.

ALGO –

Step 1 : Create a function which takes a linked list, a number as arguments and give the count of the number in the given linked list.

Step 2 : Initialize count equal to 0.

Step 3 : Traverse in Linked List, compare with the given number, if found a number equal to it, update count.

a) If the element data equal to the required number increment count.

b) After reaching the end of the Linked List return count.

Step 4 : call the function on given linked list and number you want to know occurrences. It prints the number of occurrences.

CODE IN COMPILER -

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

int occur(int [], int, int);

int main()
{
    int size, key, count;
    int list[20];
    int i;
```

```

printf("Enter the size of the list: ");
scanf("%d", &size);
printf("Printing the list:\n");
for (i = 0; i < size; i++)
{
    list[i] =rand() % size;
    printf("%d  ", list[i]);
}
printf("\nEnter the key to find it's occurrence: ");
scanf("%d", &key);
count = occur(list, size, key);
printf("%d occurs for %d times.\n", key, count);
return 0;
}

int occur(int list[], int size, int key)
{
    int i, count = 0;

    for (i = 0; i < size; i++)
    {
        if (list[i] == key)
        {
            count += 1;
        }
    }
    return count;
}

```

OUTPUT -

```

31     for (i = 0; i < size; i++)
32     {
33     if (list[i] == key)
PROBLEMS  OUTPUT  TERMINAL  1: Code
cd "/Volumes/RAJ 2/CODE/" && gcc r.c -o r && "/Volumes/RAJ 2/CODE/"r
rajdeepjaiswal@Rajdeeps-Air CODE % cd "/Volumes/RAJ 2/CODE/" && gcc r.c -o r && "/Volumes/RAJ 2/CODE/"r
Enter the size of the list: 12
Printing the list:
7  1  5  2  10  8  0  2  11  1  0  5
Enter the key to find it's occurrence: 2
2 occurs for 2 times.
rajdeepjaiswal@Rajdeeps-Air CODE %
Ln 34, Col 10  Spaces: 4  UTF-8

```