# Worksheet –3

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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 occurence: ");

**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 -

