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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 -

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

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

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

```c
    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 -