# Logic Building Assignment : 39

## Consider below code snippet to solve given problem statements.

```
#define TRUE 1
#define FALSE 0

typedef int BOOL;

struct node
{
   int Data;
   node *Next;
};

typedef struct node NODE;
typedef struct node* PNODE;
typedef struct node** PPNODE;

void InsertFirst(PPNODE Head int no )
{
   PNODE newn = NULL;

   newn = (PNODE)malloc(sizeof(NODE));

   newn->Next = NULL;
   newn->Data = no;
   if (*Head == NULL)
   {
      *Head = newn;
   }
   else
   {
      newn -> Next = *Head;
      *Head = newn;
   }
}

int main()
{
      PNODE First = NULL;

      InsertFirst(&First, 101);
      InsertFirst(&First, 51);
      InsertFirst(&First, 21);
      InsertFirst(&First, 11);

      // Call all functions for below problem statements.
      return 0;
}
```

**1. Write a program which search first occurrence of particular element from singly linear linked list.**
**Function should return position at which element is found.**

Function Prototype :int SearchFirstOcc( PNODE Head , int no );

Input linked list : |10|->|20|->|30|->|40|->|50|->|30|->|70|

Input element : 30

Output : 3

**2. Write a program which search last occurrence of particular element from singly linear linked list.**
**Function should return position at which element is found.**

Function Prototype :int SearchLastOcc( PNODE Head, int no );

Input linked list : |10|->|20|->|30|->|40|->|50|->|30|->|70|

Input element : 30

Output : 6

**3. Write a program which returns addition of all element from singly linear linked list.**

Function Prototype :int Addition( PNODE Head);

Input linked list : |10|->|20|->|30|->|40|

Output : 100

**4. Write a program which return largest element from singly linear linked list.**

Function Prototype :int Maximum( PNODE Head);

Input linked list : |110|->|230|->|320|->|240|

Output : 320

**5. Write a program which return smallest element from singly linear linked list.**

Function Prototype :int Minimum( PNODE Head);

Input linked list : |110|->|230|->|20|->|240|->|640|

Output : 20