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*****SUBHAS NATH*****
*****PROGRAM OF LINEAR LINKED LIST*****

#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#define NULL 0
struct link
{
    int info;
    struct link *next;
};
typedef struct link node;
void main()
{
    node *head;
    clrscr();
    void create(node *);
    void show(node *);
    node *insert_fst(node *);
    node *insert_lst(node *);
    head=(node *)malloc(sizeof(node)); //CREATE STORAGE FOR FIRST NODE
    printf("\n\tCreate the linked list:\n");
    create(head);
    printf("\n\tDisplay the linked list:\n");
    show(head);
    printf("\n\n\tInsertion at 1st position.\n");
    head=insert_fst(head);
    show(head);
    printf("\n\n\tInsertion at last position.\n");
    head=insert_lst(head);
    show(head);
    getch();
}

*****CREATE LINKED LIST*****


void create(node *temp)
{
    char ans;
    printf("\nEnter the info:-  ");
    scanf("%d",&temp->info);
    temp->next=NULL;
    printf("\nWant Another?  ");
    fflush(stdin); //CLEAR THE BUFFER
    ans=getchar();
    if(ans!='y')
        return;
    else
    {
        temp->next=(node *)malloc(sizeof(node));//CREATE STORAGE FOR NEXT NODE
        create(temp->next); //RECURSIVE CALL TO CREATE NEXT NODE
    }
}

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*****DISPLAY LINKED LIST*****
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void show(node *temp)
{
    if(temp->next==NULL)
        printf("%d",temp->info); //DISPLAY LAST NODE
    else
    {
        printf("%d->",temp->info);//DISPLAY CURRENT INFO
        show(temp->next); //RECURSIVE CALL TO DISPLAY NEXT INFO
    }
}
```

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*****INSERTION AT FIRST POSITION*****
```

```
node *insert_fst(node * temp)
{
    node * list;
    list=(node *)malloc(sizeof(node));
    printf("\nEnter the element:- ");
    scanf("%d",&list->info);
    list->next=temp;
    temp=list;
    return(temp);
}
```

```
*****INSERTION AT LAST POSITION*****
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```
node *insert_lst(node *temp)
{
    node *last,*first;
    first=temp;
    while(temp->next!=NULL)
    {
        temp=temp->next;
    }
    if(temp->next==NULL)
    {
        last=(node *)malloc(sizeof(node));
        printf("\nEnter the element:- ");
        scanf("%d",&last->info);
        temp->next=last;
        last->next=NULL;
    }
    return(first);
}
```