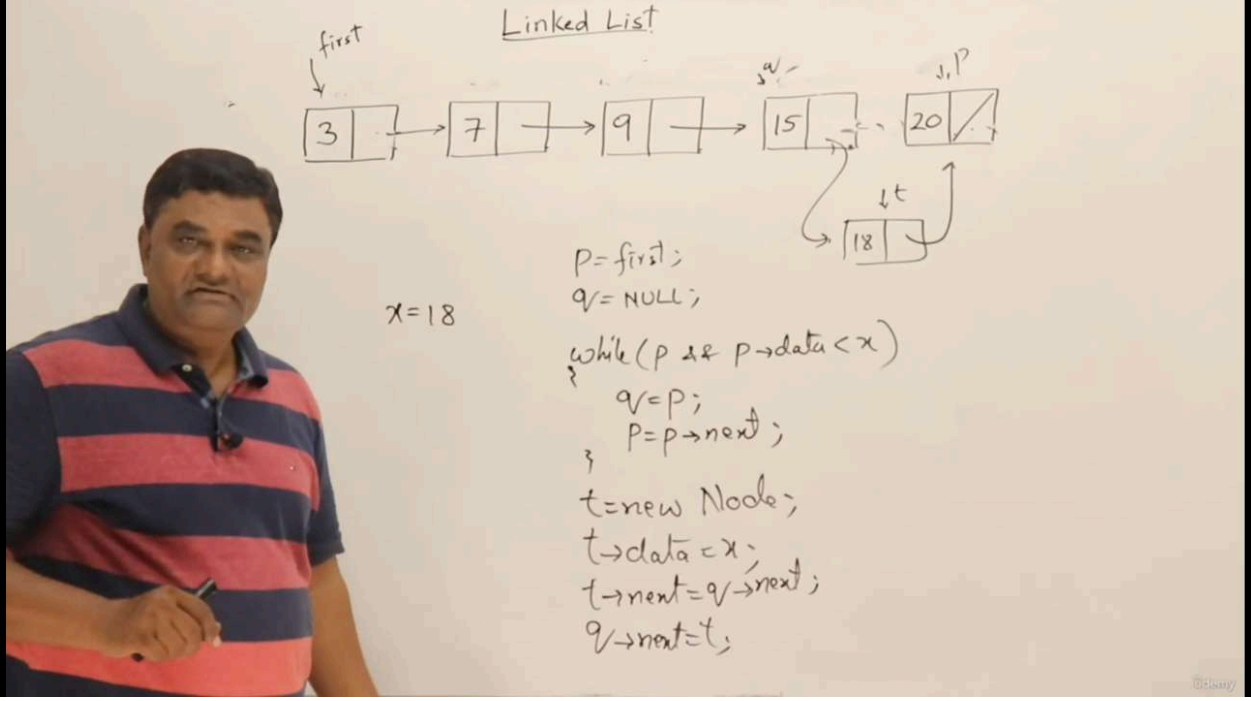
Linked List
first
3
7
9
15
20
18
q
p
t
x=18
p=first;
q=NULL;
while(p && p->data<x)
{
q=p;
p=p->next;
}
t=new Node;
t->data=x;
t->next=q->next;
q->next=t;

Inserting in a Sorted Linked List

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

struct Node
{
    int data;
    struct Node *next;
}*first=NULL,*second=NULL,*third=NULL;

void Display(struct Node *p)
{
    while(p!=NULL)
    {
        printf("%d ",p->data);
        p=p->next;
    }
}




void create(int A[],int n)
{
    int i;
    struct Node *t,*last;
    first=(struct Node *)malloc(sizeof(struct Node));
    first->data=A[0];
    first->next=NULL;
    last=first;

    for(i=1;i<n;i++)
    {
        t=(struct Node*)malloc(sizeof(struct Node));
        t->data=A[i];
        t->next=NULL;
        last->next=t;
        last=t;
    }
}


void SortedInsert(struct Node *p,int x)
{
    struct Node *t,*q=NULL;
```

```
    t=(struct Node*)malloc(sizeof(struct Node));
    t->data=x;
    t->next=NULL;

    if(first==NULL)
        first=t;
    else
    {
        while(p && p->data<x)
        {
            q=p;
            p=p->next;
        }
        if(p==first)
        {
            t->next=first;
            first=t;
        }
        else
        {
            t->next=q->next;
            q->next=t;
        }
    }

}

int main()
{

    int A[]={10,20,30,40,50};
    create(A,5);


    printf("%d\n",SortedInsert(first,15));
    Display(first);


    return 0;
}
```