//Aim 11: Write a Program in C to delete a node from any position in Doubly Linked List
Code:

```
#include<stdio.h>
typedef struct doubly_linkedlist
{
 int data;
 struct doubly_linkedlist *prev,*next;
}node;
node *temp,*ttemp,*first,*p,*q;

void createfirst()
{
 first=(node*)malloc(sizeof(node));
 printf("Enter the data of node 1: ");
 scanf("%d",&first->data);
 first->prev=first->next=NULL;
}

void addnode(int i)
{
 temp=first;
 while(temp->next!=NULL)
  temp=temp->next;
 ttemp=(node*)malloc(sizeof(node));
 printf("Enter the data of node %d: ",i);
 scanf("%d",&ttemp->data);
 temp->next=ttemp;
 ttemp->next=NULL;
 ttemp->prev=temp;
}

void display()
{
 p=first;
 printf("Values of node of linked list are: ");
 while(p!=NULL)
 {
  printf("%d\t",p->data);
  p=p->next;
 }
}

int delete_at_n(int pos)
{
 int x,i;
 temp=first;
 for(i=1;i<pos;i++)
 temp=temp->next;
```

```
 q=temp->prev;
 p=temp->next;
 q->next=p;
 p->prev=q;
 temp->next=NULL;
 free(temp);
 if(pos==1)
 first=p;
}
void main()
{
 int pos1,n,i;
 clrscr();
 printf("Enter the total number of nodes: ");
 scanf("%d",&n);
 createfirst();
 for(i=2;i<=n;i++)
 addnode(i);
 display();
 printf("\nEnter the position at which node is to be deleted: ");
 scanf("%d",&pos1);
 delete_at_n(pos1);
 display();
 getch();
}
```

OUTPUT 11: