```
#include <iostream>
using namespace std;

struct Node{
   char value;
   struct Node* next;
   struct Node* prev;

};

class Doublylinkedlist{
   public:
   Node *head, *curr;

   Doublylinkedlist(){
      head = NULL;
      curr = NULL;
   }
   void Insertathead(char a){
   Node* bh = newnode();

   if(head==NULL){
      head=bh;
      curr=bh;
   }
```

```
    temp->next = head;
    head->prev = bh;
    curr->next = bh;

    head = bh;

}

void Insertattail(char a){
    Node* bh = newnode();

    if(head==NULL){
        head=bh;
        curr=bh;
    }
    curr->next=bh;
    temp->prev = curr;

    curr = bh;
 }


bool searchdata(char a){
   Node *m = head;
   while(m != NULL){
```

```
    if(m->value == a){
      return true;
    }
    else {
      m = m->next;
    }
  }
  return 0;

}

void deletedata(char a){
   if(head==NULL)
      return;
   if(a==1){
      head = head->next;

      if(head->next==NULL)
         curr=NULL;
      else
        head->next->prev = NULL;
      return;
   }
   Node *bh;
   Node *bh1;
```

```
   int i = 1;


   bh = head;


  while((i < a) && bh->next !=NULL){
   bh = bh->next;
   i++;
  }
  if(i==a){
       bh1 = bh->prev;
       bh1->next = bh->next;


       if(bh->next==NULL)
          curr=bh1;
       else
          bh->next->prev = bh1;
  }
  else
   cout<<"Not Exist"<<endl;


}


void printforward(){
   cout<<"Print forward order";
```

```
    Node *listdata;
    listdata = head;

    while(1) {
        if(head==NULL || curr==NULL) break;
            cout<<listdata->value<<" ";

        if(listdata==curr) break;
         listdata = listdata->next;

    }
}

void printbackward(){
    cout<<"Print backward order";

    Node *listdata;
    listdata
    while(1) {
        if(head==NULL || curr==NULL) break;
            cout<<listdata->value<<" ";

        if(listdata->prev==NULL) break;
            listdata=listdata->prev;
```

```
    }
}
};
int main(){

    head = NULL;
    Insertathead(t);
    Insertathead(h);
    Insertathead(k);
    searchdata(t);
    Insertathead(l);
    Insertathead(m);
    deletedata(l);
    printforward();
    printbackward()



}
```