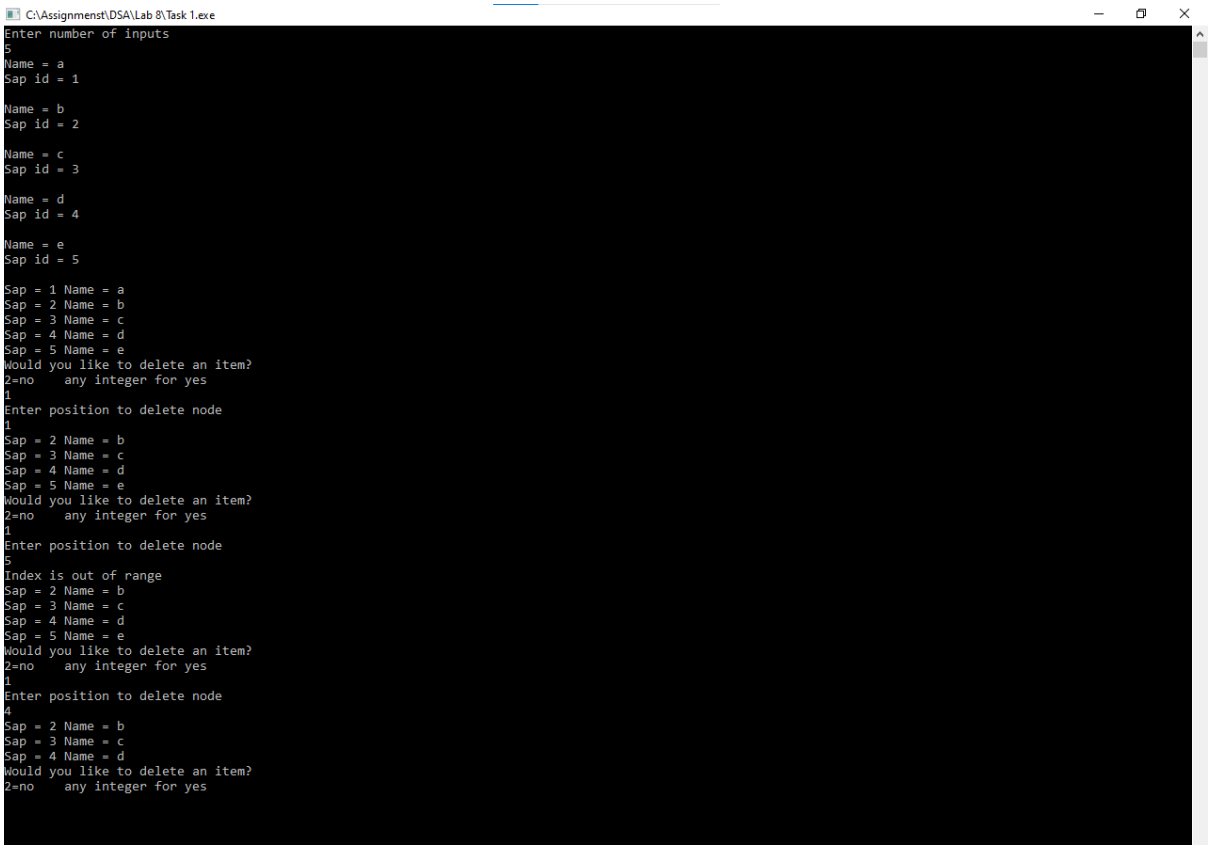


```
#include <iostream>

using namespace std;

// Node class to represent a node of the linked list.

class Node{

public:

string name;

        int SAP;


        Node* next;

        Node()

        {

        name="";

                SAP = 0;

                next = NULL;

        }

        Node(int SAP,string ran)

        {
```

```
        this->name=ran;
                this->SAP = SAP;
                this->next = NULL;
        }
};

class Linkedlist {
        Node* head;
public:
        Linkedlist() { head = NULL; }
void insertNode(int data,string ran)
{
        Node* newNode = new Node(data,ran);
        if (head == NULL) {
                head = newNode;
                return;
        }
        Node* temp = head;
        while (temp->next != NULL) {
                temp = temp->next;
        }
        temp->next = newNode;
}
void printList()
{
        Node* temp = head;

        if (head == NULL) {
                cout << "List is empty" << endl;
                return;
        }
```

```
        while (temp != NULL) {
                cout <<"Sap = "<< temp->SAP <<" Name = "<<temp->name<< endl;
                temp = temp->next;
        }
}
void deleteNode(int nodepos)
{
        Node *temp1 = head, *temp2 = NULL;
        int ListLen = 0;
        if (head == NULL) {
                cout << "LIST IS EMPTY deletion not performed" << endl;
                return;
        }
        while (temp1 != NULL) {
                temp1 = temp1->next;
                ListLen++;
        }
        if (ListLen < nodepos) {
                cout << "Index is out of range"<< endl;
                return;
        }
        temp1 = head;
        if (nodepos == 1) {
                head = head->next;
                delete temp1;
                return;
        }
        while (nodepos-- > 1) {
                temp2 = temp1;
                temp1 = temp1->next;
        }
```

```
        temp2->next = temp1->next;


        delete temp1;
}
};



int main()
{ string inp;
int in,i,ch=0,pos;
        Linkedlist list;
        cout<<"Enter number of inputs "<<endl;
        cin>>i;
        for(i;i>0;i--){
                cout<<"Name = ";
                        cin>>inp;
                        cout<<"Sap id = ";
        cin>>in;
        cout<<endl;
        list.insertNode(in,inp);
        }


        list.printList();
                cout<<"Would you like to delete an item?\n2=no\tany integer for yes"<<endl;
        cin>>ch;
while(ch!=2){
        cout<<"Enter position to delete node"<<endl;
        cin>>pos;
        list.deleteNode(pos);
        list.printList();
        cout<<"Would you like to delete an item?\n2=no\tany integer for yes"<<endl;
```

```
        cin>>ch;
}
list.printList();
        return 0;
}
```