Experiment 11

To perform various operations on linked list using python

```
# create empty linked list

ll=[]
ll.append("India")
ll.append("Japan")
ll.append("America")
print('the existing list =',ll)

# display menu
choice =0
while choice<5:
  print('Linked list operation')
  print('1 Add element')
  print('2 Remove element')
  print('3 Replace element')
  print('4 search element')
  print('5 Exit element')
  choice=int(input('your choice: '))
  if choice==1:
    element=input('Enter element: ')
    pos=int(input('At what position: '))
    ll.insert(pos,element)
  elif choice==2:
    try:
      element=input('Enter element: ')
      ll.remove(element)
    except ValueError:
      print('element not found')

  elif choice==3:
    element=input('Enter element: ')
    pos=int(input('At what position: '))
    ll.pop(pos)
    ll.insert(pos,element)

  elif choice==4:
    element=input('Enter element: ')
    try:
      pos=ll.index(element)
      print('element found at position',pos)

    except ValueError:
      print('element not found')
  else:
    break
  print('List=',ll)
```

```
the existing list = ['India', 'Japan', 'America']
Linked list operation
1 Add element
2 Remove element
3 Replace element
4 search element
5 Exit element
your choice: 1
Enter element: Mumbai
At what position: 0
List= ['Mumbai', 'India', 'Japan', 'America']
Linked list operation
1 Add element
2 Remove element
3 Replace element
4 search element
5 Exit element
your choice: 2
Enter element: America
List= ['Mumbai', 'India', 'Japan']
Linked list operation
1 Add element
2 Remove element
3 Replace element
4 search element
5 Exit element
your choice: 3
Enter element: Russia
At what position: 2
List= ['Mumbai', 'India', 'Russia']
Linked list operation
1 Add element
2 Remove element
3 Replace element
4 search element
5 Exit element
your choice: 5
```