**Python code for user defined lists**

class Node:

def \_\_init\_\_(self, v = None):

self.value = v

self.next = None

return

def isempty(self):

if self.value == None:

return(True)

else:

return(False)

def append(self,v): # append, recursive

if self.isempty():

self.value = v

elif self.next == None:

newnode = Node(v)

self.next = newnode

else:

self.next.append(v)

return

def insert(self,v):

if self.isempty():

self.value = v

return

newnode = Node(v)

# Evchange values in self and newnode

(self.value, newnode.value) = (newnode.value, self.value)

(self.next, newnode.next) = (newnode, self.next)

return

def delete(self,v): # delete, recursive

if self.isempty():

return

if self.value == v:

self.value = None

if self.next != None:

self.value = self.next.value

self.next = self.next.next

return

else:

if self.next != None:

self.next.delete(v)

if self.next.value == None:

self.next = None

return

def \_\_str\_\_(self):

selflist = []

if self.value == None:

return(str(selflist))

temp = self

selflist.append(temp.value)

while temp.next != None:

temp = temp.next

selflist.append(temp.value)

return(str(selflist))