Traversing of link list

Step 1:[INITILIZE]SET PTR=START

Step 2:Repeat step 3 and 4 while PTR!=NULL

Step 3: Apply Process PTR->DATA

Step 4: SET PTR=PTR->NEXT

[END OF LOOP]

Step 5:EXIT

PRINT A LINK LIST

Step 1:SET COUNT =0

Step 2:[INITILIZE] SET PTR=START

Step 3:Repeat step 4 and 5 while PTR!=NULL

Step 4:SET COUNT = COUNT + 1

Step 5:SET PTR=PTR->NEXT

[END OF LOOP]

Step 6:Write COUNT

Step 7:EXIT

Searching link list

Step 1:[INITILIZE] SET PTR=START

Step 2:Repeat step 3 and 4 while PTR!=NULL

Step 3:IF VAL==PTR->DATA

SET POS=PTR

GO TO Step 5

ELSE

SET PTR=PTR->NEXT

[END OF IF]

[END OF LOOP]

Step 4:SET POS=NULL

Step 5:EXIT

INSERTING A NEW NODE AT THE DEGINNING

Step 1:IF AVIAL==NULL

Write OVERFLOW

Go to Step 6

Step 2:SET NEW\_NODE=AVAIL

Step 3:SET AVAIL=AVAIL->NEXT

Step 4:SET NEW\_NODE->DATA=VAL

Step 5:SET NEW\_NODE->NEXT=START

Step 6:SET START = NEW\_NODE

Step 7:EXIT

INSERTING a new node at the end

Step 1:IF AVAIL==NULL

Write OVERFLOW

Go to Step 10

Step 2:SET NEW\_NODE=AVAIL

Step 3:SET AVAIL=AVAIL->NEXT

Step 4:SET NEW\_NODE->DATA= VAL

Step 5:SET NEW\_NODE->NEXT=NULL

Step 6:[INITILIZE] SET PTR=START

Step 7:Repeat Step 8 while PTR->NEXT!=NULL

Step 8:SET PTR=PTR->NEXT

[END OF LOOP]

Step 9:SET PTR->NEXT=NEW\_NODE

Step 10:EXIT

INSERTING a new node after a given val

Step 1: IF AVAIL==NULL

Write OVERFLOW

Go to Step 12

Step 2:SET NEW\_NODE=AVAIL

Step 3:SET AVAIL=AVAIL->NEXT

Step 4:SET NEW->DATA=VAL

Step 5:SET PTR=START

Step 6:SET PREPTR=PTR

Step 7:Repeat Step 7 and 8 while PTR->DATA!=NUM

Step 8: SET PREPTR=PTR

Step 9:SET PTR=PTR->NEXT

[END OF LOOP]

Step 10:PREPTR->NEXT=NEW\_NODE

Step 11:SET NEW\_NODE->NEXT=PTR

Step 12:EXIT

Delete first node

Step 1:IF START==NULL

Write UNDERFLOW

Go to Step 5

Step 2:SET PTR=START

Step 3:SET START=START->NEXT

Step 4:FREE PTR

Step 5:EXIT

Delete last node

Step 1:IF START==NULL

Write UNDERFLOW

Go to Step 9

Step 2:[INITILIZE]SET PTR=START

Step 3:Repeat Step 4 and 5 while PTR->NEXT!=NULL

Step 4:SET PREPTR=PTR

Step 5:SET PTR=PTR->NEXT

[END OF LOOP]

Step 6:SET TEMP=PTR

Step 7:SET PREPTR->NEXT=NULL

Step 8:FREE TEMP

Step 9:EXIT

Delete node after a given node

Step 1:IF START==NULL

Write UNDWRFLOW

Go to Step 10

Step 2:[INITILIZE] SET PTR=START

Step 3:[INITILIZE]SET PREPTR=PTR

Step 4:Repeat Step 4 and 5 while PREPTR->DATA!=NUM

Step 5:SET PREPTR=PTR

Step 6:SET PTR=PTR->NEXT

[END OF LOOP]

Step 7:SET TEMP=PTR

Step 8:SET PREPTR->NEXT=PTR->NEXT

Step 9:FREE PTR

Step 10:EXIT