Double Linked

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#include <stdio.h>
#include <stdlib.h>

struct Node { int data;
              struct Node* prev;
              struct Node* next; };
struct Node* head;

struct Node* GetNode(int x)
{ struct Node* newNode = (struct Node*)malloc
                         (sizeof(struct Node));
  newNode -> data = x;
  newNode -> prev = Null;
  newNode -> next = Null;
  return newNode; }

void Insert(int x)
{ struct Node* newNode = GetNode(x);
  if(head == = Null)
   { head = newNode; return; }
  head -> prev = newNode;
  newNode -> next = head;
  head = newNode; }
```

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void Print()
{ struct Node * temp = head;
  while (temp != Null)
{ printf("%d ", temp->data);
  temp = temp->next; } }

void delete()
{ int i=1, pos; struct Node* temp2 = head;
printf("Enter position");
scanf("%d", &pos);

if (head == null)
{ printf("Empty"); } return; }

else
{ while (i<pos)
{ temp2 = temp2->next; i++; }

if (i==1)
{ if (temp2->next == null)
{ printf("Node deleted");
  free (temp2);
  temp2 = head = null;
  return; } }
```

```
if (temp2->next == null)
{ temp2->prev->next = null;
  free(temp2)
  printf("Node deleted"); return; }

temp2->next->prev = temp2->prev;
if (i != 1)
  temp2->prev->next = temp2->next;
if (i == 1)
  head = temp2->next;
printf("\n Node deleted");
free(temp2); } }

int main()
{ int choice; int x
  while (1) { printf("1. Create");
              printf("2. Insert");
              printf("3. delete");
              printf("4. Exit");
              scanf("%d", &choice);
switch (choice)
{ case 1: printf("Enter element");
          scanf("%d", &x); head = GetNode(
          break;
case 2: Print(); break;
```

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case 3: printf("Enter element");
        scanf("%d", &x); insert(x);
        break();
case 4: delete(); break;
case 5: exit(0); break;
default: printf("Invalid"); break; }
return 0; }
```