week-9

```
#include<stdio.h>
#include<stdlib.h>
struct node
{
   int data;
   struct node *next;
   struct node *prev;
};
struct node *head=NULL;
void insert_beg()
{
  Structnode *new_node;
  new_node =(struct node*)malloc(sizeof(struct node));
  printf("Enter the item\n");
  scanf("%d",&new_node->data);
  new_node->next=NULL;
  new_node->prev=NULL;
   if(head==NULL)
   {
      head=new_node;
   }
    else
    {
       newnode->next=head;
       head->prev=new_node;
        head=new_node;
    }
  }
```

```
void del()
{
  struct node *temp;
  int ele;
  if (head == NULL)
  {
    printf("Empty list\n");
    return;
  }
  printf("Enter the element to be deleted \n");
  scanf("%d", &ele);
  temp = head;
  while (temp->data != ele)
{
  temp = temp->next;
  if (temp == NULL)
  {
  printf("Element is not in the list\n");
  break;
  }
  }
  if (temp == head)
  {
    head = head->next;
  }
  else if (temp->next == NULL)
  {
    temp = temp->prev;
    temp->next = NULL;
  }
  else
```

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    }
    temp->prev->next = temp->next;
    temp->next->prev = temp->prev;
  }
}

void display()
{
  struct node *temp;
  temp = head;
  while(temp != NULL)
  {
    printf("%d\t", temp->data);
    temp = temp->next;
  }
  printf("\n");
}

int main()
{
  int choice;
  while(1)
  {
    printf("1. Insert at the beg\n");
    printf("2. Delete\n");
    printf("3. Display\n");
    printf("4. Exit\n");
    printf("Enter your choice\n");
    scanf("%d", &choice);
    switch(choice)
    {  case 1: insert_beg(); break;
       case 2: del(); break;
       case 3: display(); break;
       case 4: exit(0);
    }
```