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LAB-8

WAP to implement DLL with primitive operations
a) Create a doubly linked list
b) Insert a new node to the left of the node.
c) Delete the node based on a specific value
d) Display the contents of the list.

```
void insert_beg()
{
 struct node *ptr;
 int item;
ptr = (struct node *)malloc (sizeof (struct node));
 if (ptr == NULL)
 {
   printf ("\n Overflow \n");
 }
else
 {
   printf ("\n Enter Value to be inserted \n");
   scanf ("%d", &item);
   if (head == NULL)
   {
      ptr->next = NULL;
      ptr->prev = NULL;
      ptr->data = item;
      head = ptr;
   }

void delete_specified()
{
 struct node *ptr, *temp;
 int val;
```

```
printf ("\n Enter the data after which the
node is to be deleted \n");
scanf ("%d", &val);
ptr = head;
while (ptr -> data != val)
ptr = ptr -> next;
if (ptr -> next == NULL)
{
printf ("\n Can't be deleted \n");
}

else if (ptr -> next -> next == NULL)
{
ptr -> next = NULL;
printf ("\n Node deleted \n");
}

else
{
temp = ptr -> next;
ptr -> next = temp -> next;
temp -> next -> prev = ptr;
free (temp);
printf ("\n Node deleted \n");
}
}

Void display()
{
struct node * ptr

if (head == NULL)
{
printf ("\n The list is empty");
}
```

```
else
{
printf("\n The values in the Doubly list are \n");
  ptr = head;
  while (ptr != NULL)
  {
    printf("\n %d", ptr->data);
    ptr = ptr -> next;
  }
}
}
```