

Program 8 :- Double linked list (DLL)

→ Pseudocode:-

(a) Create a doubly linked list

```
void create(){
```

```
    temp = (struct node *) malloc (1 * size of (struct node));
```

```
    temp -> prev = NULL;
```

```
    temp -> next = NULL;
```

```
    printf ("In Enter the value to the node::");
```

```
    scanf ("%d", &data);
```

```
    temp -> n = data;
```

```
    count ++
```

```
}
```

```
exit create.
```

(b) Insert the new node to be left of the node. (beginning).

```
Void insert_beg(){
```

```
    if (h = NULL)
```

```
    {
```

```
        create();
```

```
        h = temp;
```

```
        temp1 = h
```

```
    }
```

```
    else
```

```
    {
```

```
        create();
```

```
        temp -> next = h;
```

```
        h -> prev = temp
```

```
        h = temp
```

```
    }
```

```
}
```

```
exit insert_beg.
```

(c) Delete the node o from the specific position or value.

→ void delete_atpos() {

int i = 1, pos;

→ take input of position (pos)

temp = h

if ((pos < 1) || (pos > count + 1))

{ print error

}

if (h == NULL)

{ print error

}

else {

while (i < pos)

{

temp2 = temp2 → next;

i++;

}

if (i == 1)

temp2 → prev → next = temp2 → next;

if (i == 1)

h = temp2 → next;

free (temp2);

}

count--;

}

(d) display the contents of list.

void display_beg() {

temp2 = h;

if (temp2 == NULL)

{

print error

}

while (temp2 → next != NULL)

{ printf("%d ", temp2 → n);

temp2 = temp2 → next;

}

printf("%d", temp2 → n);

}