```
prateekghanti@Prateeks-MBP doubly_linked_lists % gcc dll.c
prateekghanti@Prateeks-MBP doubly_linked_lists % ./a.out

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
1
enter the item at front end
10

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
2
enter the item at rear end
10

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
1
```

```
1
enter the item at front end
30

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
  7: delete all except one
  8:insert left
  9: insert right
  10: exit
enter the choice
2
enter the item at rear end
30

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
  7: delete all except one
  8:insert left
  9: insert right
  10: exit
enter the choice
2
enter the item at rear end
30

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
  7: delete all except one
  8:insert left
  9: insert right
  10: exit
enter the choice
```

```
enter the choice
7
Enter the item to be deleted: 10
key found at 1 positions and are deleted

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
5
contents of dq
30
10
30
30


1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
6
Enter the item whose duplicates are to be deleted: 30
key found at 3 positions and are deleted

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
```

```
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
5
contents of dq
10


1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
8
enter the key item
10
enter towards left of 10=5

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
9
Enter key item10
enter towards right of 10=15

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
```

```
1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
9
Enter key item10
enter towards right of 10=15

1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
5
contents of dq
5
10
15


1:insert front
2:insert rear
3:delete front
4:delete rear
5:display
6:delete duplicates
 7: delete all except one
 8:insert left
 9: insert right
 10: exit
enter the choice
10
prateekghanti@Prateeks-MBP doubly_linked_lists %
```