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Task 1:

A)

```
[dubejz@compile lab7]$ ./lab7

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 10

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :  10
```

B)

```
List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 10

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :  10

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 4
Size of the list is 1
```

C)

```
List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 20

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 30

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   10   20   30
```

D)

```
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 20

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 30

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   10   20   30

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 4
Size of the list is 3
```

Task 2:

A)

```
[dubejz@compile lab7]$ gcc -g lab7.c -o lab7
[dubejz@compile lab7]$ ./lab7

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 10

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   10
```

B)

```
List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 10

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   10

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 4
Size of the list is 1
```

C)

```
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 20

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 30

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 40

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :  40  20  10  30
```

D)

```
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 30

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 40

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :  40  20  10  30

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 4
Size of the list is 4
```

Task 3:

A)

```
List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 10

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   10
```

B)

```
List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   10

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 5
Enter the number to delete : 10
10 deleted successfully

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
List is Empty
```

C)

```
List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 20

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   20
```

D)

```
List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   20

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 5
Enter the number to delete : 20
20 deleted successfully

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
List is Empty
```
E)

```
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 20

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 5
Enter the number to delete : 20
20 deleted successfully

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 5
Enter the number to delete : 10
10 deleted successfully

List Operations
================
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   20
```

Task 4:
A)

```
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 20

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 10

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 5
Enter the number to delete : 20
20 deleted successfully

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 3
Element(s) in the list are :   10   10   20
```

B)

```
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 1
Enter the number to append : 20

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 2
Enter the number to push : 10

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 5
Enter the number to delete : 20
20 deleted successfully

List Operations
===============
1.Append
2.Push
3.Display
4.Size
5.Delete
6.Exit
Enter your choice : 6
==20210==
==20210== HEAP SUMMARY:
==20210==     in use at exit: 0 bytes in 0 blocks
==20210==   total heap usage: 4 allocs, 4 frees, 64 bytes allocated
==20210==
==20210== All heap blocks were freed -- no leaks are possible
==20210==
==20210== For lists of detected and suppressed errors, rerun with: -s
==20210== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
```