Output

```
Welcome to DrJava.  Working directory is C:\Users\Home\Work\CISC1115
> run Assignment_4

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
1
```
Please enter the Entery # 1
```
1
```
Please enter the Entery # 2
```
2
```
Please enter the Entery # 3
```
3
```
Please enter the Entery # 4
```
4
```
Please enter the Entery # 5
```
5
```
Please enter the Entery # 6
```
6
```
Please enter the Entery # 7
```
7
```
Please enter the Entery # 8
```
8
```
Please enter the Entery # 9
```
9
```
Please enter the Entery # 10
```
10
```
Please enter the Entery # 11
```
11
```
Please enter the Entery # 12
```
12
```
Please enter the Entery # 13
```
13
```
Please enter the Entery # 14
```
14
```
Please enter the Entery # 15
```
15
```

Please enter the Entery # 16
```
16
```
Please enter the Entery # 17
```
17
```
Please enter the Entery # 18
```
18
```
Please enter the Entery # 19
```
19
```
Please enter the Entery # 20
```
20
```
Please enter the Entery # 21
```
999
```

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
2
```
Pre_Order
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Post_Order
20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
In_Order
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
4
```
The Tree Has Nodes = 20

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```

Output

```
5
```

```
Node 1 Number of Children = 19
Node 2 Number of Children = 18
Node 3 Number of Children = 17
Node 4 Number of Children = 16
Node 5 Number of Children = 15
Node 6 Number of Children = 14
Node 7 Number of Children = 13
Node 8 Number of Children = 12
Node 9 Number of Children = 11
Node 10 Number of Children = 10
Node 11 Number of Children = 9
Node 12 Number of Children = 8
Node 13 Number of Children = 7
Node 14 Number of Children = 6
Node 15 Number of Children = 5
Node 16 Number of Children = 4
Node 17 Number of Children = 3
Node 18 Number of Children = 2
Node 19 Number of Children = 1
Node 20 Number of Children = 0
```

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
1
```
```
Please enter the Entery # 1
```
```
21
```
```
Please enter the Entery # 2
```
```
999
```

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
3
```
```
Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **
```
```
1
```

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
1
```
```
Please enter the Entery # 1
```
```
0
```
```
Please enter the Entery # 2
```
```
999
```

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
3
```
```
Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **
```
```
10
```

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
3
```
```
Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **
```
```
11
```

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
3
```

Output

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

```
5
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
3
```
Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

```
2
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
1
```
Please enter the Entery # 1

```
10
```
Please enter the Entery # 2

```
999
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
2
```
Pre_Order
0 10 3 4 6 7 8 9 12 13 14 15 16 17 18 19 20 21
Post_Order
10 0 21 20 19 18 17 16 15 14 13 12 9 8 7 6 4 3
In_Order
0 10 3 4 6 7 8 9 12 13 14 15 16 17 18 19 20 21

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.

3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
4
```

The Tree Has Nodes = 23

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
5
```

Node 987987 Number of Children = 22
Node 0 Number of Children = 1
Node 10 Number of Children = 0
Node 987987 Number of Children = 19
Node 3 Number of Children = 18
Node 4 Number of Children = 17
Node 987987 Number of Children = 16
Node 6 Number of Children = 15
Node 7 Number of Children = 14
Node 8 Number of Children = 13
Node 9 Number of Children = 12
Node 987987 Number of Children = 11
Node 987987 Number of Children = 10
Node 12 Number of Children = 9
Node 13 Number of Children = 8
Node 14 Number of Children = 7
Node 15 Number of Children = 6
Node 16 Number of Children = 5
Node 17 Number of Children = 4
Node 18 Number of Children = 3
Node 19 Number of Children = 2
Node 20 Number of Children = 1
Node 21 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
6
```

The Tree is Free Now!

Output

```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
4
The Tree Has Nodes = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
1
Please enter the Entery # 1
3
Please enter the Entery # 2
1
Please enter the Entery # 3
5
Please enter the Entery # 4
999

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
3
Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **
77

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```

```
2
Pre_Order
3 1 5
Post_Order
1 5 3
In_Order
1 3 5

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
4
The Tree Has Nodes = 3

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
5
Node 3 Number of Children = 2
Node 1 Number of Children = 0
Node 5 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
3
Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **
3

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
```

Output

```
3
```

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

```
1
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
2
```

Pre_Order
5
Post_Order
5
In_Order
5

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
4
```

The Tree Has Nodes = 3

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
5
```

Node 987987 Number of Children = 2
Node 987987 Number of Children = 0
Node 5 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.

4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
6
```

The Tree is Free Now!

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
4
```

The Tree Has Nodes = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
1
```

Please enter the Entery # 1

```
999
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
3
```

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

```
15
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
1
```

Output

Please enter the Entery # 1

30

Please enter the Entery # 2

5

Please enter the Entery # 3

10

Please enter the Entery # 4

20

Please enter the Entery # 5

999

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

2

Pre_Order
30 5 10 20
Post_Order
20 10 5 30
In_Order
5 10 20 30

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

3

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

20

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

3

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

5

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

3

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

15

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

3

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

30

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

2

Pre_Order

Post_Order

In_Order

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.

Output

2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
4
```
The Tree Has Nodes = 4

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
5
```
Node 987987 Number of Children = 3
Node 987987 Number of Children = 2
Node 987987 Number of Children = 1
Node 987987 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
6
```
The Tree is Free Now!

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
1
```
Please enter the Entery # 1
```
2
```
Please enter the Entery # 2
```
999
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.

1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
2
```
Pre_Order
2
Post_Order
2
In_Order
2

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
4
```
The Tree Has Nodes = 1

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
5
```
Node 2 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
3
```
Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **
```
2
```

Please choose what you want to do from below (1 - 2 - 3 - 4).

Output

1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
2
```

Pre_Order

Post_Order

In_Order

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
4
```

The Tree Has Nodes = 1

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
5
```

Node 987987 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
6
```

The Tree is Free Now!

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.

4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
1
```

Please enter the Entery # 1

```
11
```

Please enter the Entery # 2

```
25
```

Please enter the Entery # 3

```
75
```

Please enter the Entery # 4

```
12
```

Please enter the Entery # 5

```
37
```

Please enter the Entery # 6

```
60
```

Please enter the Entery # 7

```
90
```

Please enter the Entery # 8

```
8
```

Please enter the Entery # 9

```
15
```

Please enter the Entery # 10

```
32
```

Please enter the Entery # 11

```
45
```

Please enter the Entery # 12

```
50
```

Please enter the Entery # 13

```
67
```

Please enter the Entery # 14

```
97
```

Please enter the Entery # 15

```
95
```

Please enter the Entery # 16

```
999
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.

Output

```
2
```

Pre_Order
11 8 25 12 15 75 37 32 60 45 50 67 90 97 95
Post_Order
8 15 12 32 50 45 67 60 37 95 97 90 75 25 11
In_Order
8 11 12 15 25 32 37 45 50 60 67 75 90 95 97

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
4
```

The Tree Has Nodes = 15

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
5
```

Node 11 Number of Children = 14
Node 8 Number of Children = 0
Node 25 Number of Children = 12
Node 12 Number of Children = 1
Node 15 Number of Children = 0
Node 75 Number of Children = 9
Node 37 Number of Children = 5
Node 32 Number of Children = 0
Node 60 Number of Children = 3
Node 45 Number of Children = 1
Node 50 Number of Children = 0
Node 67 Number of Children = 0
Node 90 Number of Children = 2
Node 97 Number of Children = 1
Node 95 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.

```
3
```

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

```
37
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
3
```

Please Eneter the Vlaue to be Deleted.
** The Value will be replaced and voided, but the Node will stay in the tree **

```
15
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
1
```

Please enter the Entery # 1

```
40
```

Please enter the Entery # 2

```
99
```

Please enter the Entery # 3

```
999
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.

```
2
```

Pre_Order

Output

```
11 8 25 12 75 32 40 60 45 50 67 90 97 95 99
Post_Order
8 12 40 32 50 45 67 60 95 99 97 90 75 25 11
In_Order
8 11 12 25 32 40 45 50 60 67 75 90 95 97 99

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
4
```
```
The Tree Has Nodes = 17

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
5
```
```
Node 11 Number of Children = 16
Node 8 Number of Children = 0
Node 25 Number of Children = 14
Node 12 Number of Children = 1
Node 987987 Number of Children = 0
Node 75 Number of Children = 11
Node 987987 Number of Children = 6
Node 32 Number of Children = 1
Node 40 Number of Children = 0
Node 60 Number of Children = 3
Node 45 Number of Children = 1
Node 50 Number of Children = 0
Node 67 Number of Children = 0
Node 90 Number of Children = 3
Node 97 Number of Children = 2
Node 95 Number of Children = 0
Node 99 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```

```
6
```
```
The Tree is Free Now!

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
1
```
```
Please enter the Entery # 1
```
```
50
```
```
Please enter the Entery # 2
```
```
40
```
```
Please enter the Entery # 3
```
```
60
```
```
Please enter the Entery # 4
```
```
30
```
```
Please enter the Entery # 5
```
```
70
```
```
Please enter the Entery # 6
```
```
20
```
```
Please enter the Entery # 7
```
```
80
```
```
Please enter the Entery # 8
```
```
10
```
```
Please enter the Entery # 9
```
```
90
```
```
Please enter the Entery # 10
```
```
999
```
```
Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
```
2
```
```
Pre_Order
50 40 30 20 10 60 70 80 90
```

Output

Post_Order
10 20 30 40 90 80 70 60 50
In_Order
10 20 30 40 50 60 70 80 90

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
4
```
The Tree Has Nodes = 9

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
5
```
Node 50 Number of Children = 8
Node 40 Number of Children = 3
Node 30 Number of Children = 2
Node 20 Number of Children = 1
Node 10 Number of Children = 0
Node 60 Number of Children = 3
Node 70 Number of Children = 2
Node 80 Number of Children = 1
Node 90 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
6
```
The Tree is Free Now!

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.

6- Free the Tree.
```
4
```
The Tree Has Nodes = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
1
```
Please enter the Entery # 1
```
30
```
Please enter the Entery # 2
```
40
```
Please enter the Entery # 3
```
20
```
Please enter the Entery # 4
```
10
```
Please enter the Entery # 5
```
50
```
Please enter the Entery # 6
```
999
```

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
```
2
```
Pre_Order
30 20 10 40 50
Post_Order
10 20 50 40 30
In_Order
10 20 30 40 50

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.

Output

```
5- Count the Children of each Node.
6- Free the Tree.
    4
The Tree Has Nodes = 5

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
    5
Node 30 Number of Children = 4
Node 20 Number of Children = 1
Node 10 Number of Children = 0
Node 40 Number of Children = 1
Node 50 Number of Children = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
    6
The Tree is Free Now!

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
    2
Pre_Order

Post_Order

In_Order


Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
```

```
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
    4
The Tree Has Nodes = 0

Please choose what you want to do from below (1 - 2 - 3 - 4).
1- Insert Records.
2- Print the Tree.
3- Delete Records.
4- Count the Nodes.
5- Count the Children of each Node.
6- Free the Tree.
    000
>
```