

ESO207 Programming Assignment 2.2

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1 Data Structure Usage

Two-Three tree ADT controlled using a class **twth** and structure **twthnode**.

2 Strategy Used

3 Structure Used

The structure used for the program **twthnode** is declared as follows -

Algorithm 1: Structure Declaration

```
1 struct twthnode {
2     int type;
3     /* 0 null 1 single 2 leaf 3 twonode 4 threenode */
4     int d1,d2;
5     /* 2 values are stored and when not needed they are set to
        -1 */
6     struct twthnode* parent;
7     struct twthnode* left;
8     struct twthnode* middle;
9     struct twthnode* right;
10 }
```

4 Pseudo Code

- Split(T,x)
- Repair()

5 Runtime Complexity Analysis