

# Binary Trees

```
public class BinaryTree
{
    static public void main( String [ ] args )
    {
        BinaryTree t1 = new BinaryTree( "1" );   BinaryTree t3 = new BinaryTree( "3" );
        BinaryTree t5 = new BinaryTree( "5" );   BinaryTree t7 = new BinaryTree( "7" );
        BinaryTree t2 = new BinaryTree( );       BinaryTree t4 = new BinaryTree( );
        BinaryTree t6 = new BinaryTree( );

        t2.merge( "2", t1, t3 );   t6.merge( "6", t5, t7 );   t4.merge( "4", t2, t6 );

        System.out.println( "t4 should be perfect 1-7; t2 empty" );
        System.out.println( "-----" );
        System.out.println( "t4" );
        t4.printInOrder( );
        System.out.println( "-----" );
        System.out.println( "t2" );
        t2.printInOrder( );
        System.out.println( "-----" );
        System.out.println( "t4 size: " + t4.size( ) );
        System.out.println( "t4 height: " + t4.height( ) );
    }
}
```