

An GREEN Binary Search Tree Class

Version 1b

The green search tree module

A green search tree (GST) can handle duplicate values. Here is a conforming *gst.h* file:

```
/** green binary search tree class */

#ifndef __GST_INCLUDED__
#define __GST_INCLUDED__

#include <stdio.h>

typedef struct gst GST;

extern GST *newGST(
    void (*)(void *,FILE *),          //display
    int (*)(void *,void *)),          //comparator
    void (*)(void *));                //freeing function
extern void insertGST(GST *,void *);
extern int findGSTcount(GST *,void *);
extern void *findGST(GST *,void *);
extern void *deleteGST(GST *,void *);
extern int sizeGST(GST *);
extern int duplicatesGST(GST *);
extern void statisticsGST(GST *,FILE *);
extern void displayGST(GST *,FILE *);
extern void displayGSTdebug(GST *,FILE *);
extern void freeGST(GST *);

#endif
```

The implementation of the class methods are similar to that of the *AVL class*.