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Project 3

This project builds on top of a standard binary search tree to implement a fully functional splay tree. The project supports int, float, and char type splay trees and is simulated through a user menu that supports insertion, deletion, tree traversal, and program termination.

Running the Program

To run the program, first download the "project3.cpp", "bstSplay.h", and "dsexceptions.h" files to a CSE machine. Once you are in the directory that contains these files, compile the program by typing "g++ project3.cpp". Finally, run the program by typing "./a.out".

After running the program you will then be prompted to enter a data type for the splay tree simulation. Once a data type is entered you will be given a menu with 4 options. To execute an option, simply type the parentheses-enclosed number that is associated with the command.

Example of Running the Program

Compiling:

```
chs0090@cse03:~/csce_3110/project3$ ls
a.out   bstSplay.h   dsexceptions.h   project3.cpp
chs0090@cse03:~/csce_3110/project3$ g++ project3.cpp
```

Running:

```
chs0090@cse03:~/csce_3110/project3$ ./a.out
```

User Menu:

```
What splay tree data type (int, float, char)? int
+---------------------------------------+
Enter option choice 1 - 4:
(1) insert integer into tree
(2) remove integer from tree
(3) print tree traversals
(4) exit program
+---------------------------------------+
```