CSE 208

Offline 6: Splay Tree

Submission Deadline: Week 9

You have to implement a height balanced splay tree (CPP/ Java object oriented code). Implement the following functions.

| Task | Function | Description | Expected Complexity | Marks |
|------|-----------|---|------------------------|----------------------|
| 1 | Print(T) | Print the tree T, get the code here. You can modify the code according to your Splay Tree code. | Doesn't matter | 1 [but' it's a must] |
| 2 | Splay(x) | Do the splay operations and bring x to the root. | O(log n) | 8 |
| 3 | Search(x) | Do the Search operation using the splay operation. | O(log n) | 2 |
| 4 | Insert(x) | Do the Insert operation using the splay operation. Make sure you are using Split(x). | O(log n) | 4 |
| 5 | Delete(x) | Do the Delete operation using the splay operation. Make sure you are using Join(L,R). | O(log n) | 5 |

**Submit only the source code named as <u>1505xxx splay.cpp or 1505xxx splay.java</u>, along with relevant source files. Executables or the project codes must not be submitted.