

# **CSE 451: Operating Systems**

## **Hard Lessons Learned**

### **Windows**

### **Generic Table Package using**

### **Splay Tree**

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# A simple package to look up keyed data

- Create() a table, specify a generic ordering function
- Add() an entry to the table
- Lookup() an entry based on a key
- Remove() an entry
  
- Great for things like symbol tables in a compiler or tracking opened files
  
- Added a way to enumerate a table from beginning to end, really as a debug tool

# Splay trees: the perfect solution

- Just a binary search tree
- Self adjusting based on lookup

# Performance gains

- Locality of lookups

# What could possibly go wrong?

- My simple solution for enumerating a table linearized the tree. Augh!

# Back to the drawing board.

- Red Black replaced Splay