Producer Report 1 for B-tree Visualization Project

Director: Samuel Morrison

Producer: Brayden Peck

Other team members: Conley O'Neill, Thomas Wood

# Section 1 Current Tasks

Tasks for this period.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Task | Complete/Incomplete | Assigned to | Start Date | Time spent (total) | Comments |
| Familiarize with C++ and Qt | Complete | All | 8/23 | 17 |  |
| Look into the existing code | Complete | All | 8/23 | 1 |  |
| Research B, B+, and B\* tree | Complete | All | 8/23 | 9 |  |
| Recode existing code in C++ | Incomplete | All | 9/2 | 24 | This part took much longer than expected to get the b tree classes working in C++ |
| Rough GUI Implementation | Complete | Conley, Thomas | 9/2 | 5 | Rough GUI has been completed |
| Create B tree node | Incomplete | Brayden | 9/2 | 4 | This class has been constantly adjusted with new methods being added frequently |
| Search method B tree | Incomplete | Brayden | 9/2 | ~ | This is blocked until the insert method is working properly |
| Insert method B tree | Incomplete | Brayden | 9/2 | 5 | This method is mostly working but there is still some bugs that need to be sorted out |
| Delete method B tree | Incomplete | Brayden | 9/2 | ~ | This is blocked until the insert method is working properly |
| Create B+ tree node | Incomplete | Samuel | 9/2 | 8 | Restructured class. Node methods have been more complicated than expected |
| Search method B+ tree | Incomplete | Samuel | 9/2 | ~ | This is blocked until the insert method is working properly |
| Insert method B+ tree | Incomplete | Samuel | 9/2 | 2 | Rough start but got scrapped in favor of restructuring node class |
| Delete method B+ tree | Incomplete | Samuel | 9/2 | ~ | This is blocked until the insert method is working properly |

# Section 2 Completed Tasks

Completed tasks:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task | Assigned to | Estimated completion time | Actual completion time | Start Date |
| Familiarize with C++ and Qt | All | 12 | 17 | 8/23 |
| Look into the existing code | All | 2 | 1 | 8/23 |
| Research B, B+, and B\* tree | All | 8 | 9 | 8/23 |
| Rough GUI implementation | Conley, Thomas | 5 | 5 | 9/2 |

The main roadblocks that we have right now are creating the b and b+ trees. Our node classes are mostly complete but there are always additions being made to the class as we find them necessary. Currently both trees are stuck on getting the insert method to function properly with proper node splitting when required. Once the insert method works correctly then we can start working on the search and delete methods.

The following image is meant to serve as a visualization to our current roadblocks. We are hoping that once the insert methods of the B-tree’s are completed that the search and delete methods will be much simpler.

A diagram of a process flow

Description automatically generated

Meeting schedule

|  |  |  |
| --- | --- | --- |
| Date | Time | Attendance |
| 8/26 | 8:00am – 8:50am | All |
| 8/28 | 8:00am – 8:50am | All |
| 8/30 | 8:00am – 8:50am | All |
| 9/4 | 8:00am – 8:50am | All |
| 9/6 | 8:00am – 8:50am | All |
| 9/9 | 8:00am – 8:50am | All |
| 9/11 | 8:00am – 8:50am | All |
| 9/13 | 8:00am – 8:50am | All |
| 9/16 | 8:00am – 8:50am | Samuel, Conley, Thomas |
| 9/18 | 8:00am – 8:50am | All |

# Section 3 Upcoming Tasks

Upcoming / Incomplete tasks

|  |  |  |  |
| --- | --- | --- | --- |
| Task | Assigned to | Estimated Time Spent | Estimated Start Date |
| Finalize B tree node | Brayden | 5 | 9/2 |
| Search method B tree | Brayden | 5 | 9/2 |
| Insert method B tree | Brayden | 5 | 9/2 |
| Delete method B tree | Brayden | 5 | 9/2 |
| Finalize B+ tree node | Samuel | 5 | 9/2 |
| Search method B+ tree | Samuel | 5 | 9/2 |
| Insert method B+ tree | Samuel | 5 | 9/2 |
| Delete method B+ tree | Samuel | 5 | 9/2 |
| GUI resizing | Conley, Thomas | 4 | 9/18 |