CONTRIBUTION TABLE FOR ASSIGNMENT 4

Group No: 24 – Individual Contributions

Group no 24: Individual Contribution			
CWID	**Name**	**Contribution (description)**	**Percent Contribution**
A20561274	**Akshith Goud Kasipuram**	**Designed and implemented core B+ Tree index functionalities, including insertion, deletion, and print routines. Optimized internal structures, ensured integration with Record Manager and Buffer Pool, wrote and organized most of the `btree_mgr.c` logic.**	**25%**
A20546868	**Rahul Tatikonda**	**Worked on scan operations and traversal logic, assisted in testing and debugging various B+ Tree scenarios, and helped refine integration with buffer manager.**	**25%**
A20489414	**Jacob Bode**	**Focused on the design and testing of key deletion and node merge operations, validated edge cases, and worked on RID management.**	**25%**
A20560828	**Prithwee reddei patelu**	**Supported structural debugging, helped refactor leaf/internal node formatting functions, and ensured B+ Tree structure correctness through test validation.**	**25%**

Detailed Work Breakdown Summary

Akshith Goud Kasipuram

- Designed and implemented **core B+ Tree index functionalities** including insertion, deletion, and print routines.
- Managed **root creation**, leaf-node updates, and tree formatting mechanisms.
- Integrated indexing with **record management and buffer pool operations**.
- Handled **tree traversal logic** and maintained consistency of key-order.
- Drafted the project **README** and structured the codebase for readability.

Rahul Tatikonda

- Built **scan handling mechanisms** for navigating through the B+ Tree structure.
- Designed **state tracking** for cursor management during scans.
- Assisted in edge-case handling during key traversal and **null record support**.
- Conducted **testing and debugging** of scan modules.

Jacob Bode

- Focused on **key deletion logic**, particularly merging and rebalancing of B+ Tree nodes.
- Managed **RID updates and cleanup** post-deletion.
- Worked on maintaining **parent-child pointer accuracy** during restructure.
- Validated **deletion edge cases** using diverse test scenarios

Prithwee Reddei Patelu

- Enhanced the **debugging output** for B+ Tree visualization.
- Refactored **node printing logic** for both internal and leaf nodes.
- Verified **tree structure integrity** after operations using DFS walk.
- Contributed to test validation and **edge-case debugging**.

Final Review & Approval:

All team members have **reviewed and agreed upon** this contribution breakdown.
This document serves as the **final and accurate record of contributions**.

Output Video Link:

https://www.loom.com/share/1bb2958b58644d3a8d1797b0dec97650