**CONTRIBUTION TABLE FOR ASSIGNMENT 2**

**Group No: 24** – **Individual Contributions**

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| **Group no 24: Individual Contribution** | | | |
| **CWID** | **Name** | **Contribution (description)** | **Percent Contribution** |
| **A20561274** | **Akshith Goud Kasipuram** | **- Led the implementation and debugging of buffer\_mgr.c. - Developed and optimized all page replacement strategies (FIFO, LRU, LFU, CLOCK). - Refactored pinPage(), forcePage(), and forceFlushPool() for better performance. - Structured and optimized Makefile for automated testing and efficient compilation. - Finalized project documentation (README.txt) and managed overall workflow.** | **25%** |
| **A20546868** | **Rahul Tatikonda** | **- Focused on implementing page tracking functions (getFrameContents(), getDirtyFlags(), getFixCounts()). - Assisted in debugging markDirty() and unpinPage() logic. - Helped structure README.txt and ensured documentation clarity and completeness.** | **25%** |
| **A20489414** | **Jacob Bode** | **- Worked on test\_assign1\_2.c, ensuring functionality.**  **- Assisted in debugging and validating outputs from storage\_mgr.c.**  **- Helped document testing methodology in README.txt.**  **- Contributed to finalizing Makefile optimizations.** | **25%** |
| **A20560828** | **Prithwee reddei patelu** | **Integrated and validated page replacement strategies. - Assisted in debugging forceFlushPool() to optimize disk writes. - Worked on Makefile optimizations for seamless compilation. - Validated test cases in test\_assign2\_1.c and test\_assign2\_2.c** | **25%** |

### **Detailed Work Breakdown Summary:**

#### **Akshith Goud Kasipuram – Lead Developer & Debugger**

* Designed and implemented **all** page replacement strategies: **FIFO, LRU, LFU, CLOCK**.
* Debugged and optimized core functions: pinPage(), forcePage(), forceFlushPool(), and shutdownBufferPool().
* **Led debugging efforts** for test cases and ensured test\_assign2\_1.c and test\_assign2\_2.c passed all cases.
* **Refactored** Makefile for automated testing and better performance.
* **Managed documentation (**README.txt**)**, ensuring clarity and completeness.
* Guided the team in resolving implementation issues.

#### **Rahul Tatikonda – Debugging & Memory Management**

* Helped refine **memory management functions** in shutdownBufferPool() and forceFlushPool().
* Assisted in debugging and **test execution** for test\_assign2\_1.c and test\_assign2\_2.c.
* Worked with Akshith to **validate FIFO & LRU implementations** and optimize their efficiency.
* **Reviewed and contributed to** README.txt, ensuring proper documentation of functions and their use.

#### **Jacob Bode – Page Tracking & Documentation**

* Developed **utility functions**: getFrameContents(), getDirtyFlags(), and getFixCounts().
* Debugged markDirty() and unpinPage(), ensuring correct dirty flag handling.
* **Improved function modularity**, making the code more maintainable.
* Assisted in **documentation (**README.txt**)** and **debugging LRU & LFU strategies** with Akshith.

#### **Prithwee Reddei Patelu – Testing & Optimization**

* Worked with Akshith on **integrating and validating page replacement strategies**.
* Optimized forceFlushPool(), ensuring better disk write efficiency.
* Improved **compilation automation** in Makefile.
* Helped validate and debug **test cases in** test\_assign2\_1.c **and** test\_assign2\_2.c.
* Assisted in testing and refining buffer pool management functions.

### **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/d916a5f0e6164a35b28b6191a20b4198>  
**Output Screenshots:**  












