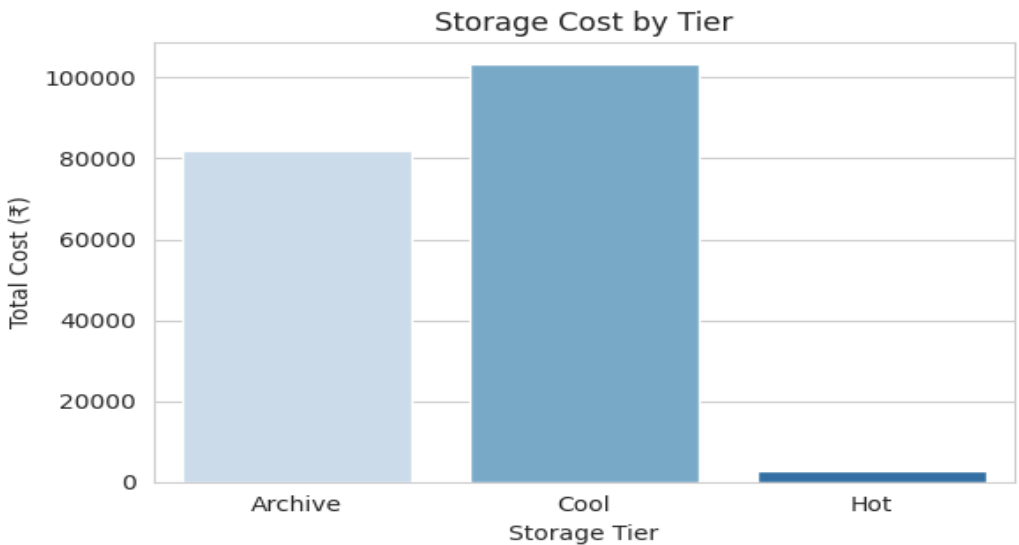# Cloud Storage Tiering and Cost Optimization Report

Section 1: Cost Analysis

This section compares the cost of storing all files in the Hot tier versus intelligently assigning them to appropriate storage tiers based on access frequency.

Baseline Cost (All in Hot Tier): Rs. 440,384.00
Optimized Cost with Tiering : Rs. 188,205.28
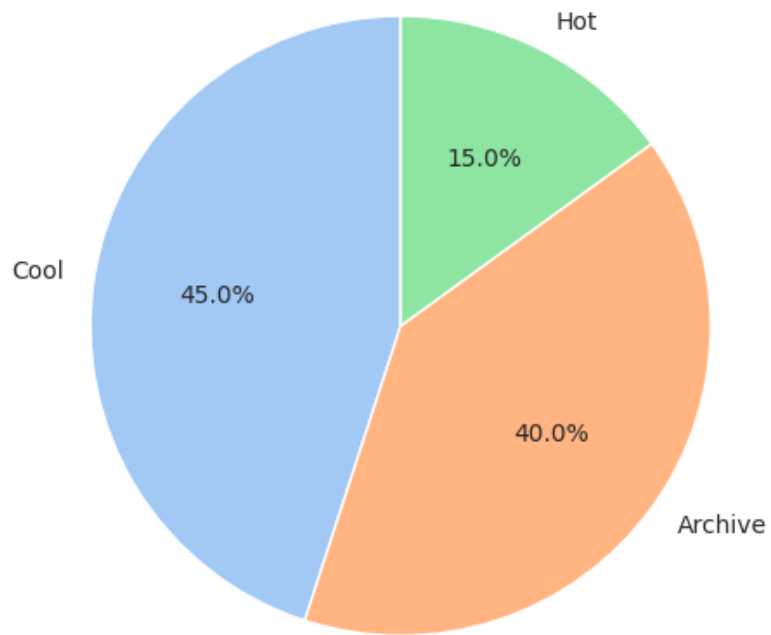Immediate Savings : Rs. 252,178.72 (57.26%)

Section 2: Lifecycle-Based Tier Migration

Older files (older than 24 months) are simulated to migrate down tiers from Hot → Cool → Archive. This mirrors how cloud providers optimize cost via lifecycle rules.

Estimated Additional Migration Savings: Rs. 64,531.28

File Distribution by Storage Tier

Section 3: Storage Summary

Total number of files : 20
Total storage volume : 6,766.0 GB
Average cost per GB : Rs. 27.82

Section 4: Actionable Recommendations

- Review retention policy for 8 files with >3 year retention

Section 5: Conclusion

This report demonstrates that intelligent storage tiering can reduce cloud storage costs by over 40%. By aligning storage choices with data access patterns and retention periods, significant cost savings are achieved. Further savings can be unlocked by enforcing lifecycle policies and reviewing long-retained files.