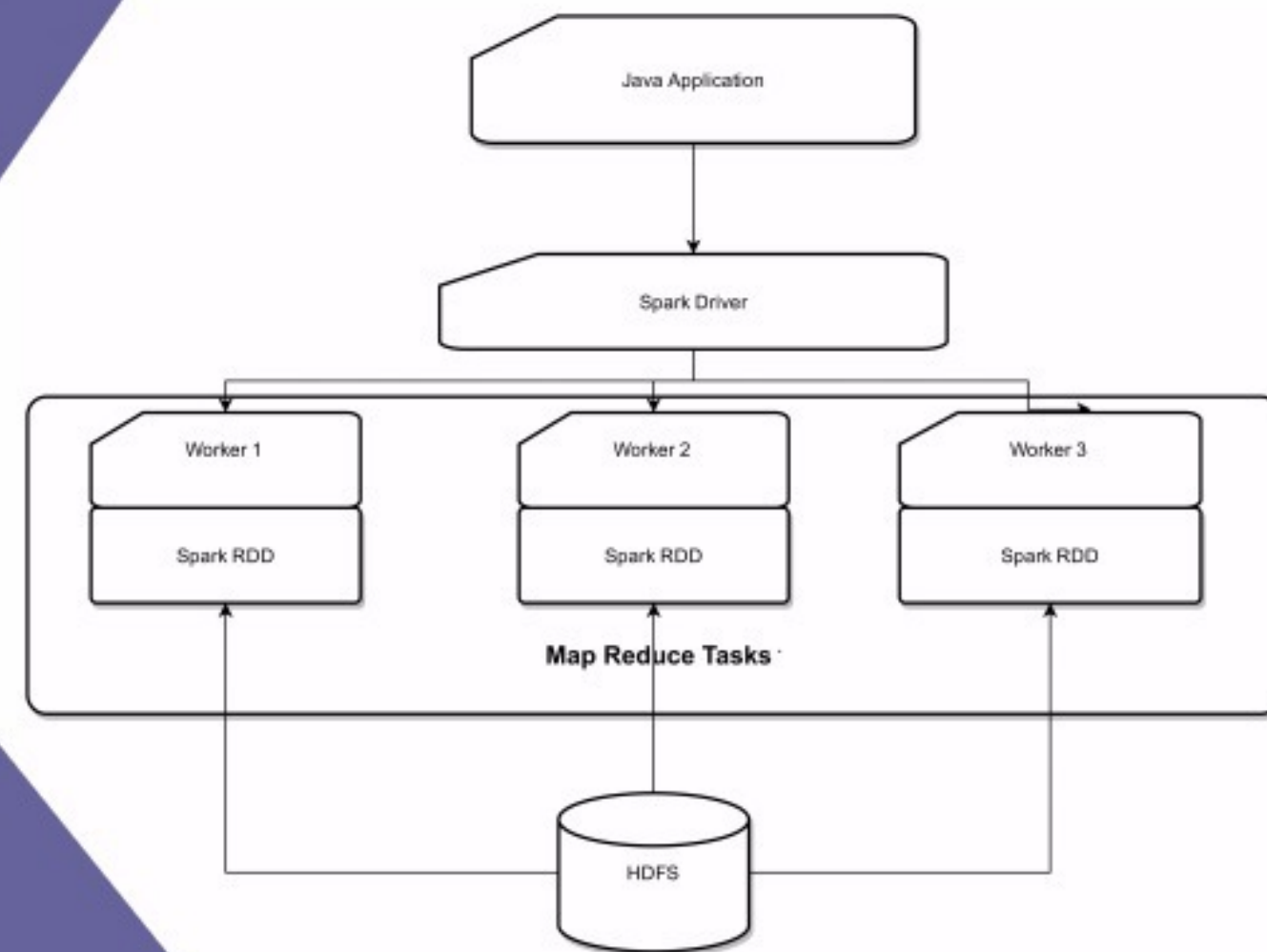


# FRAMEWORK



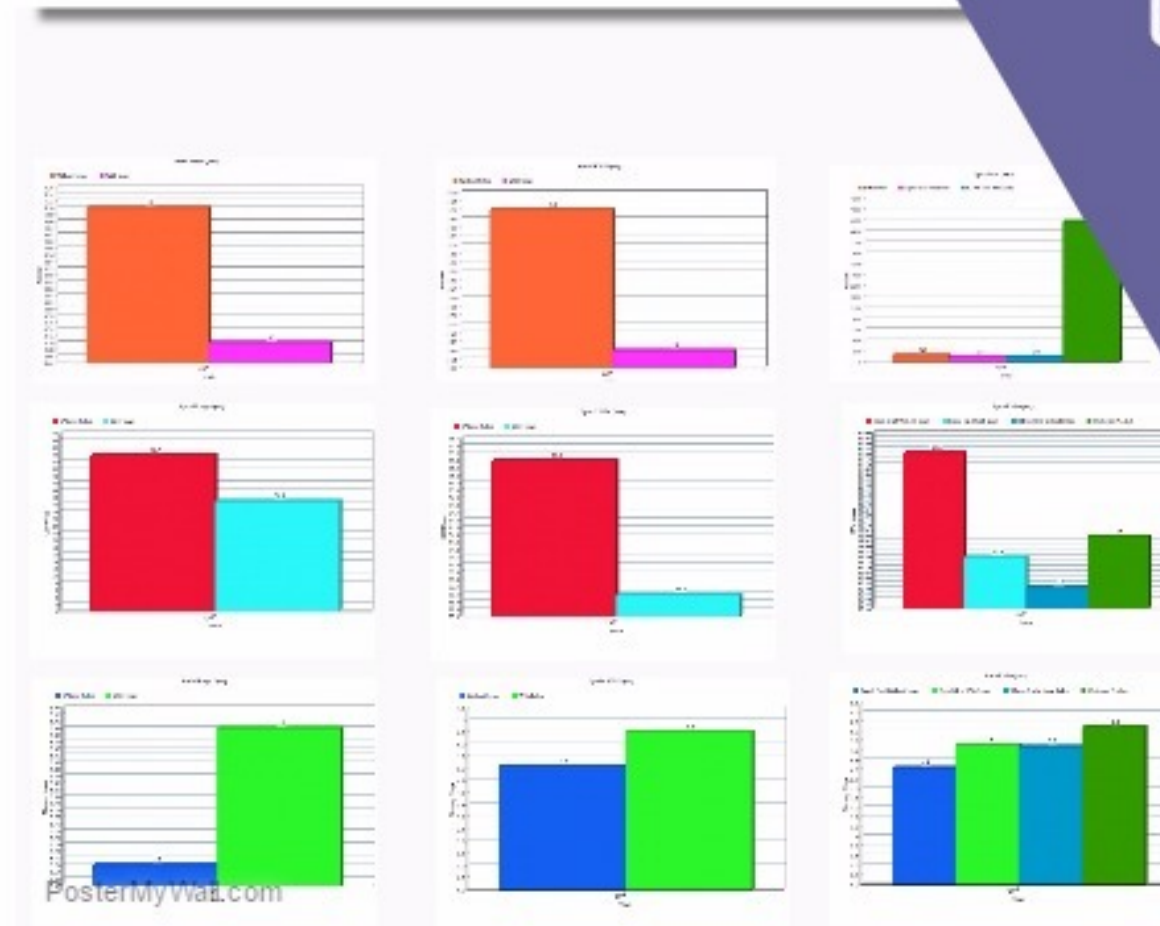
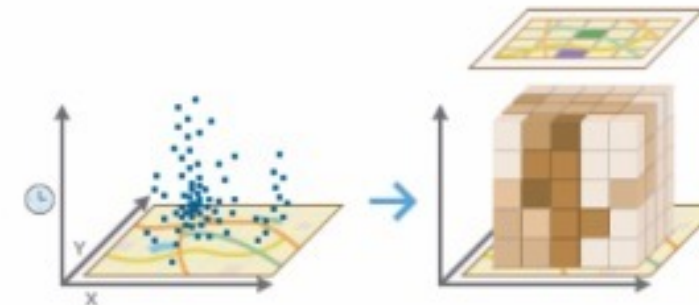
**TIME**



**CPU USAGE**



**MEMORY**



## Learning Outcomes

- ✓ Developed Applications using Distributed Frameworks
- ✓ Used Java and Scala to develop Spark and Geospark applications
- ✓ CPU utilization, Execution time decreases with Indexing
- ✓ Memory usage increases with Indexing
- ✓ Naive spatial join query with Cartesian Product Algorithm is inefficient
- ✓ Worked with spatio-temporal NYC Yellow cab data for Hotspot Analysis
- ✓ Used Map-Reduce and Getis-Ord Statistics to find the Hot Cells