Plan for the Master Project

- 1. Core (Antidote Client, Docker, MapDB)
- 2. GUI
- 3. YCSB
- 4. Results Visualization
- 5. Benchmark Configurations for Antidote

Core Tasks

- 1. Finish implementation of the basic Docker Interface
 - -> Kevin Bartik
- 2. Finish implementation of the basic Antidote Client
 - -> Alka Scaria
- 3. Ensure that MapDB is working correctly when using concurrency
 - -> Kevin Bartik
- 4. Implement the management of Dockerfiles and Images so that multiple branches/commits of the Antidote database can be benchmarked
 - -> Kevin Bartik
- 5. Implement the management of configuration files
 - -> Alka Scaria
- 6. Add configuration implementation to the Antidote Client
 - -> Alka Scaria
- 7. Integration of the YCSB interface
 - -> Kevin Bartik, Alka Scaria
- 8. Feature Additions and Code Refactoring
 - -> Kevin Bartik, Alka Scaria
- 9. Document the important functionality
 - -> Kevin Bartik, Alka Scaria

GUI Tasks

- 1. Finish implementation of the basic GUI.
 - -> Kevin Bartik
- 2. Extend the GUI to support new functionality in Benchmarking
 - -> Kevin Bartik

YCSB Tasks

Core -> 1, 2, 3 GUI -> 1

YCSB -> 1, 2, 3

Results Visualization -> 1, 2

1. Create a Document that explains the YCSB Benchmark. 2. Describe the Interface that must be implemented. -> Vishnu 3. Describe the configuration file that is used. -> Vishnu 4. Integrate the necessary features in the Core. 5. Implement the interface for one datatype. -> Vishnu 6. Implement the interface for another datatype -> Vishnu 7. Implement the interface for most datatypes -> All **Results Visualization Tasks** 1. Research existing implementations for Results Visualization (Java) -> Maxime 2. Implement examples for evaluation -> Maxime 3. Write a document about how the data must be structured to be visualized -> Maxime 4. Integrate the Visualization in the GUI -> Maxime, Kevin Bartik Benchmark Configurations for Antidote 1. Define possible Benchmark Configurations for Antidote (Data Centers, Nodes, Connections, ...) 2. Implement additional Benchmark Configurations in YCSB and Core -> All Goals for the next 2 weeks

Goal for the next 3 weeks after that

Core -> 4, 5, 6, 7 YCSB -> 4, 5 Result Visualization -> 3, 4 Benchmark Configurations -> 1

Goal for the next 3 weeks after that

Core -> 8, 9
GUI -> 2
YCSB -> 6, 7
Benchmark Configurations -> 2

Goal for the rest of the time

Run Benchmarks

Make Code more extensible

Maybe write some automated Benchmarking and Tests