

## Distributed Systems Assignment

CS17B034

2.

Write a report on how you would implement MapReduce using Go.

A high level design document of workers, masters, and their interaction etc. A worker might not respond, in such a situation describe how the master will re assign the work to a different thread.

Master detects the workers failure, if the worker doesnot respond to the masters ping in the required time period.

When a map worker fails

Map tasks in-progress at failed worker are set to idle for rescheduling.

Map tasks completed at failed worker are reset to idle.

Output of map is stored on local disk. If the worker goes down after task completion.

Still the local files are inaccessible and requires to redo and reduce workers gets notified regarding the same.

When Reduce worker is failed

In progress tasks are reset to idle.