**Distributed banking system – Panagiotis Kolaitis – M1436**

**High level analysis and estimations**

Start date May 22nd

* Implement a node js bank backend api, that would allow for (by May 25th)
  + User registration & authentication
  + Deposits
  + Withdraws
  + Transfers
  + Interests
* Provide configurations for distributed architecture (by June 3rd)
  + Many replicas (add / remove)
  + Trigger failures and restarts (manual or random)
  + Latency between replicas
* Implement EPaxos revisited consensus (explore different versions of Paxos and choose most suitable or the most comprehensible for development) (by June 15th) – Maybe look into blockchain to record information
* Synthesize datasets to (by June 5th)
  + feed to api,
  + simulate real world cases and
  + evaluate correctness of execution
* Design a front-end app for visualization and manual interactions (by June 10th)
* Evaluate (by June 25th)
  + Application sanity
  + Correctness
  + Execution latency
  + Recover from replica failure

Extra features (by June 23th)

Documentation & Slides (by June 28th)

The project presentation will include an app demo, with interactions, datasets preparation, visuals via the front-end app, and some charts created beforehand

I will do this project alone, putting in an average of 6 hours a week

Current semester week load

Work 40h / week

Classes 4 hours / week

Finalizing thesis project 8 hours / week