

Selected Topics in Computer Networks

Nguyễn Quốc Đính

Faculty of IT, Ho Chi Minh City University of Industry

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Instructor

- Me
 - Nguyễn Quốc Đính nqdingh@hui.edu.vn
- Site <https://github.com/chuyendemang/chuyendemang-dhth8>
 - lecture notes
 - assignments
 - updated information

Outlines

- Become familiar to the principle of cloud services
 - P2P, membership, NFS, VM, MapReduce
- Write a distributed system for key-value storage with redundancy
 - In C++
 - Not so easy, but worth you efforts
- Use existing open source (Xen, VMWare, Hadoop ...) for essays.

Tentative syllabus

- Introduction, SaaS, PaaS, IaaS
- Gossip, Membership, Grids
- Programming 1 intro, git intro
- More on P2P
- Key value stores NoSQL, time and ordering
- MapReduce
- Programming 2 intro (optional)
- DFS
- Visualization
- Essays

Notes

- You are not required to attend the lectures
- Grade: midterm, endterm, exercise
- Programming exercise is
 - with C++, with GCC
 - hard (begin early)