

# Term Project

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# Outline

- About the term project
- Proposal layout
- Topics
- Possible extensions
- Grading standard

# About the term project

- Work in a group of 3 to 4 people.
- Present your project two times, lecturer and TAs will give you suggestions in the first time and you can improve it in the second time.
  - First presentation: 6/8
  - Second presentation: 6/15
- Topics are equally distributed to every team by TA.
- Term project accounts for 15% of the semester grade.
  - You can get up to 5% grade if you do the bonus item.

# Proposal layout

- Requirements Analysis
  - Understand who your user is.
  - List the requirements.
  - Show or describe your solution in the diagram.
  - You can make some assumptions of the requirements.
- System block diagram(s)
- Components description
- Data and/or control flow diagrams
- Reference

# Topic 1: DNS Hosting

- You are a Solution Architect in a DNS hosting service company.
- There are many services that your company provides:
  - A website for user to register, show the status, update profile, pay the bill, ...
  - A relational database may store these user information and DNS records.
  - Provides DNS hosting for users' domain name.
  - Host the DNS around the world.

# Topic 2: Temporary Mail

- You are going to design a temporary mail service
- The mail service should have features that:
  - User can get an randomly generated email address
  - User can receive mails with this address
  - Each email address got invalid after a period of time



# Grading standard

- Requirements Analysis
- Functional/Data Architecture
- Engagement
  - e.g., Q&A
- [Bonus] Possible extensions

# Possible extensions

- Backup (and restore) plan
- User management
- Multi-tenant
- Resource limitation
  - disk
  - bandwidth
- BCP (Business Continuity Plan)
  - high availability
  - disaster recovery
- Monitoring and alerting
- Sensitive data management



# Notice

- Focus on **“You are a Solution Architect”**
  - We don’t focus on software architecture or database schema.
  - We care about these kind of where your firewall are and how you isolates subnets
- There are no “standard answers” in the real world. The relationship between scenario and your design should be logical coherence. For example, “in order to reduce the delay, so I choose to use XXX protocol.”
- Be aware of practical and cost effective