



# CMPE 208: Programming Project

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# Goal of this Project

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- Evaluate the ability of students to work in a team and produce working code involving some Internet protocol or protocols.



# Research Report Project

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- This project will be worth 15% of your total grade.
- The project must be prepared **in groups of 3 people**.
- A text report of 10 pages maximum--including everything (cover, index, etc)--of readable font size on a regular computer screen must accompany your work.
- The project work will be presented live.
- The idea of this programming project is to show that you (future engineers graduates from SJSU) are self-sufficient and can produce working code in a reasonable time.
- Programming environment: Linux, programming languages C or C++. (other languages may also be acceptable).



# Text Report

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- Explain Assumptions.
- How the work was divided.
- System Architecture, Modules, pseudo code.
- Testing performed, results.
- Conclusions and recommendations.
- Bibliography



# Specification and Requirements

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- Write a distributed DNS server.
  - You must write a basic DNS server that interfaces with a common DNS database.
  - You must make the DNS server to reply to IPv4 queries, other types of queries are optional.
  - Your server must forward queries that cannot resolve locally to an outside DNS server configured by the user



# Specification and Requirements

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- Your backend server must interface with your DNS servers via a protocol that you design for such interaction.
- You must be able to configure at least two DNS servers to use the same backend database.
- You must be able to manually edit the backend server data to add new entries.



# Specification and Requirements

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- Note that your DNS server must be able to serve any domain name configured in the database even if they span various actual domains.
- If a name is not found in your local database, the query must never be replied to as a failure but it must be forwarded to an external DNS server.



# Due Date

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- Project is due on 04/29/2015 in class time.
- Progress report due March 18, 2015.