# CS 461 – ARTIFICIAL INTELLIGENCE

## Term Project Proposal

### Tentative Title of Your Project

Functional Dependency And Normalization Solver

## Project Partners:

1. Batuhan Tüter – Section 1 (CONTACT)
2. Serkan Demirci – Section 1

## Project Goals:

This project helps students to learn functional dependency and normalization concepts that is taught in database courses. Our program would be capable of finding canonical cover of given set of functional dependencies, and decompose the relations with given functional dependencies into BCNF-3NF forms to reduce redundancy. It will show each step in detail, which will be the intelligence part of our project. There are similar programs on the web but they are not capable of showing and reasoning the steps, also they do not decompose relations. Javascript programing will be used and project will be available online for portability.

### AI Content

Wyss, C., Giannella, C., & Robertson, E., 2001, “Fastfds: A heuristic-driven, depth-first algorithm for mining functional dependencies from relation instances (extended abstract),” in *Data Warehousing and Knowledge Discovery,* Springer Berlin Heidelberg, pp. 101-110.