Brief Description of Project Topics

- **Auto Service Data Management System**: Assume you are asked to create a data management system of an auto-service for a famous car company, like Renault or Opel. You should consider autos, service departments, operations of departments, employees, customers, service visits (of a car/customer), spare parts, distributors, car repairment histories, etc. You should design the application for different users including admin, customer, customer representative, clerk and etc. You should calculate the cost of service by using price of each spare part to be used in service.

- **Scientific Papers Digital Library**: In this project, you will design a data management system for keeping track of scientific publications, authors, journals, conferences, institutions and subscribers. A publication may be a journal/conference paper, or a technical report. A publication can be in different states; on submit, accepted, on review, rejected. A publication can have multiple authors from different institutions. You should also consider the citations.

- **Museum Data Management System**: In this project, you are asked to design a data management system for a museum considering artworks, salons, exhibitions, events, sponsors, artists, experts, officers, securities, etc. There are multiple salons in the museum where exhibitions and events could take place. Salons can be hired by the artists. Working hours of the officers and securities, their leave of absences and payments must be tracked by the system.

- **Airline Company Data Management System**: You will design a system for flight reservations of an airplane company. There are planes, cities, airports, flights, crew, customers, sales/reservations, staff, etc. You should consider flight history of customers to give promotions, connecting flights, cancelled flights and different classes within a flight (business, economy). Customers also should be able to cancel their flights but they must be penalized. Reservations done by customers have to be cancelled after a certain time. Moreover, customers should be provided to buy extra luggage with additional fee.

- **Movie Rental Store Data Management System**: In this project, you are asked to design a data management system for a store which sells and rents DVDs and Blu-ray discs. You should consider employees, customers, movies, artists, genres, directors, distributors, rentals, discount campaigns, stocks, orders for new products, etc. There should be a specific rental time for movies and customers should pay fine for late returns of rentals. Customers are allowed to rent movies up to a certain number and they should not be allowed to rent
inappropriate material for their age. Also consider customer’s history to provide them promotions.

- **Library Management System:** You are asked to design a library management system. Typically, the system keeps track of staff, items of several types (books, video, audio, etc.) with their own properties, borrowers, penalties, study rooms and their reservations, etc. There are different types of library members (student, graduate student, professors and external users) each having different types of privileges. Materials can be requested by users. Working hours of the officers and securities, their leave of absences and payments must be tracked by the system.