CENG 351 Data Management and File Structures
Fall 2014 – Written Assignment #1
Due Date: Oct. 14, 2014

Prepare your solution in hardcopy and leave it into the box at A206. Do not forget to print your name and student id.

You and a few friends created a software company called Elma Inc. An investor comes up to your fresh company with a project. He wants you to create a web page to store popular events and wants the public to be able to search for events in that page in a very easy way. Your part at the project is to create the ER diagram and list the relations of the ER in 10 days. Below are some specifications;

We have "categories" named; music, sports, performing arts, kids, education, etc. Each category is uniquely identified by category_id and we keep name of the category. Under each of the categories, we may have some "titles" defined (a title can belong to only one category); for example music category has titles Jazz, rock etc., sports category has motorsports, athletics etc. We store name and description of the titles and they should be identified by title_id.

There are events that are uniquely identified by event_id. We store name of the event such as "23rd Akbank Jazz Festival", "Florida Smooth Jazz Festival", etc. We also store official website, twitter address, facebook address and sponsor of events. An "event" cannot be defined under more than one title and a title may have many events.

An event is either a single event or a combined event. We should be able to store minimum price and a specific note to the single event, such as "There is 18 age limit" and/or "No cameras or any type of recording devices are allowed into the event area".

If event is combined, it should include more than one single event. *In addition, a single event cannot be covered by more than one combined event.* Music festivals or concert tours are examples of combined events. We store "start date" and "end date" of combined events.

We keep track of venues. Single events must occur at only one venue on a specific date. Venues are identified by venue_id. We store each venue's name, seat capacity, city information and the address.

A venue may have one or more seats. A seat in a venue is identified with its position (like A-1, B-16). Seat positions are unique within a venue; but different venues may have seats with the same positions (e.g., both venues "ankara arena" and "metu vi" can have seats at position A-1). We also store availability of seats.

What to submit?

1. A page for the E-R diagram according to the given specifications above.

2. A page consisting of the list of relations (the tables and their columns). You should also underline primary keys.

E.g.   Employees: <u>ssn</u>, name, lot

        Dept_Mgr: <u>did</u>, dname, budget, ssn, since

Best Wishes