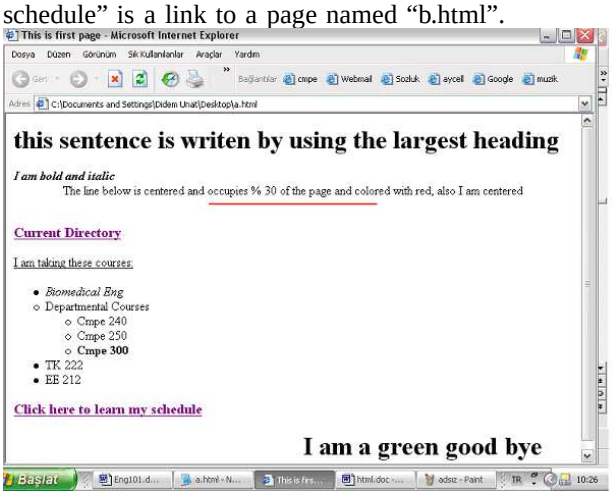
CSE 300 Midterm 1

Olcay Taner YILDIZ

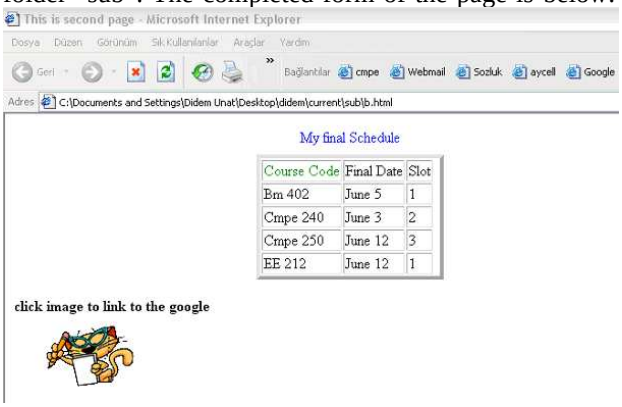
I. Question (35 points)

Follow these steps and form two web pages:

- Create a folder with your name.
- Create another folder with name “current” and put it into the folder you created in previous step.
- Create another folder with name “sub” and put it into the folder “current”.
- Create a web page with name “a.html” and put it into the “current directory”. This web page’s format: Use format and color of the text as you see below. Note: “Current directory” is a link to a.html. “Click here to learn my schedule” is a link to a page named “b.html”.



- Create a web page named “b.html” and put it into the folder “sub”. The completed form of the page is below:



II. Question (30 points)

Notown Records has decided to store information about musicians who perform on its albums (as well as other company data) in a database. The company has wisely chosen to hire you as a database designer (at your usual consulting fee of $2,500/day).

- Each musician that records at Notown has an SSN, a name, an address, and a phone number. Poorly paid musician soften share the same address, and no address has more than one phone.
- Each instrument that is used in songs recorded at Notown has a name (e.g., guitar, synthesizer, ute) and a musical key (e.g., C, B-at, E-at).
- Each album that is recorded on the Notown label has a title, a copyright date, a format (e.g., CD or MC), and an album identifier.
- Each song recorded at Notown has a title and an author.
- Each musician may play several instruments, and a given instrument maybe played by several musicians.
- Each album has a number of songs on it, but no song may appear on more than one album.
- Each song is performed by one or more musicians, and a musician may perform a number of songs.
- Each album has exactly one musician who acts as its producer. A musician may produce several albums, of course.

Draw the ER diagram for your schema. Be sure to indicate all key and cardinality constraints and any assumptions that you make.

III. Question (35 points)

Consider the following relations about the suppliers-parts-projects database. The significance of an shipment row is that the specified supplier supplies the specified part to the specified project in the specified quantity.

Suppliers(sid:integer, sname:string, status:integer, city:string)

Parts(pid:integer, pname:string, color:string, weight:integer, city:string)

Projects(prjid:integer, prjname:string, city:string)

Shipment(sid:integer, pid:integer, prjid:integer, quantity:integer)

Given the relations above, write the following queries in SQL.

1) Get full details of all projects.
2) Get part numbers for parts supplied by a supplier in London to a project in London.
3) Get the total quantity of part P1 supplied by supplier S1.
4) Get part numbers of parts supplied to some project in an average quantity of more than 350.
5) Get part numbers for parts supplied to all projects in London.
6) Get part number for parts that are supplied either by a London supplier or to a London project.
7) Get supplier numbers for suppliers supplying some project with a part P1 in a quantity greater than the average shipment quantity of part P1 for that project.