cis20.2, spring 2010, project I
software development

- This is the project for Unit I. It is worth **10 points** (10% of your term grade).
- It is due on MONDAY FEB 22 by midnight.
- SUBMIT your assignment via email to: `sklar@sci.brooklyn.cuny.edu`

In the labs so far, you have been designing two different systems:

- **bigNightOut**
  as discussed in class on the first day, this system will support a range of features that let the user plan a big night out on the town, including (but not limited to): restaurants, movies, friends to go out with, etc.; system resources will include access to reviews, times, prices, locations and availability (in real-time)
- **betterPortal**
  as you have probably experienced in the last week, this system will aim to satisfy your frustrations with the existing college registration system, including (but not limited to): courses offered, degree progress, advice, etc.; system resources will include access to reviews, times, lcoations and availability (in real-time)

I will present the design for a third system:

- **sportsMonkey**
  This system will support a range of features to satisfy the sports fan who wants to keep track of when her favorite teams are playing on TV and at local venues. System features will include: sports and teams/athletes to choose from, schedule of games/events on TV, schedule of games/events in local area, etc.; system resources will include access to reviews of TV commentators, times of games/events (on TV and at local arenas), prices of tickets at local arenas and availability (in real-time)

By the end of class on Feb 16, you will have seen a presentation from the "customer" of each system describing their System Requirements. With this PROJECT, your job is to:

A. develop a SYSTEM SPECIFICATION from the customer's requirements; and

B. decide how you can best contribute to a DEVELOPMENT TEAM to help build the system (throughout the term).

For this project, you need to submit a WRITTEN DOCUMENT that answers the questions below. Preferably, submit a **PDF** or **PS** (postscript) document. I can also read RTF and DOC, but PDF or PS are best, to make sure that the fonts and figures look the way you designed them.

A. SYSTEM SPECIFICATION

You need to begin to design the underlying software to make the system work and fulfill the customer's requirements. Think about how you would build the system that the customer has described. Answer the following questions, thoughtfully and as completely as possible. I know that there are tools and technologies that you have not learned yet—and will learn during the term. Don't worry about the minute details of the system specification. Think on a **high (abstract) level** about what the functional components of the system need to be, how they will communicate with each other, how the user will communicate with the system, how data will get put into the system, what data will be needed, etc.

1. What will the **major software components** of your system be? How will the components fit together, from a high-level software standpoint?
   (2 points)

2. What data elements will you need in the system? Where will you get the information for those data (i.e., ask the user? research on the internet? from a retailer?...)
   (2 points)

3. What will the user interface look like (roughly)? i.e., what are the components of the interface? You don't have to come up with a beautiful design right now. I just want a sketch of the functionality that has to be in the user interface. For example, a part of the screen in which to play movie trailers.
   (1 point)

4. What will be the major project milestones in building and testing the system?
   (2 points)

5. Do you have questions for the customer? If so, what are they? i.e., are there aspects of the customer's requirements that are unclear to you? are there choices that you would like the customer to make?
   (1 point)

Use drawings or diagrams if you think they will be helpful.

B. YOUR ROLE on the development team

You will be one member of a 5-person development team. Your role on the development team will be to take responsibility for one of the following components:

- user database
- content database (e.g., movies, restaurants, courses, sports teams,...)
- user interface
- quality control (i.e., software testing)
- system administrator interface

Pretend that I am your manager, and I am putting together the development team. Here is your chance to help me decide what role you will be assigned. Pretend that you have to bid for a role on the team.

Pick two roles that you think you could fulfill. Why did you choose these roles? What special skills do you have that make you a good candidate for each role?
(2 points)