

Quiz 1: ComS 362 - Object-Oriented Analysis and Design  
Fall 2006 offering by Hridesh Rajan  
Time: 20 minutes    Points: 10

Name: \_\_\_\_\_

**Please carefully read the following description and answer questions 1, 2 & 3.**

**Problem Description:** *There are a number of issues with current methods of organizing and evaluating undergraduate admission applications. The problem is that these applications are paper based. A paper-based application is bulky and difficult to handle. They are also prone to damage during handling. In addition, making a copy of these applications is expensive. Often a number of copies are required during evaluation. For example, evaluators, colleges, financial aid office, etc, require copies. This administrative burden on the admissions office consumes most of its resources.*

**Informal Requirement Document #1:** The machine should,

1. make it easier to handle admission applications,
2. make it easier and cheaper to create copies of the admission applications, and,
3. reduce the likelihood of damage to the admission applications during handling.

**Informal Requirement Document #2:** The machine should,

1. provide a database to store information contained in the admission applications, possibly a MySQL based database should keep the lost low,
2. provide a mechanism to scan paper applications and use an algorithm for converting scanned applications into text data that should be used to populate the database,
3. provide a web-based interface for the admissions office, college, financial aid office and the evaluators to handle application, if possible it should also provide another web-based interface for the applicants to fill in the required information so that scanning is not necessary. Perhaps AJAX based web-service should be used, and,
4. provide a redundant server configuration in a UPS backed up server farm.

**Q-1** Based on the notion of the world and the machine, what are the key differences between these two different requirement descriptions? (3-5 lines) (3 Points)

**Q-2** As an analyst, you are asked to solve the problem on the previous page. Usually, the first step in this process is to conduct requirement elicitation to understand the issues. During a requirement elicitation activity, you have to understand the problem from the point of view of each stakeholder. Which stakeholders would you like to involve in this process, and why? (Preferable answer format is stakeholder followed by a single sentence justification.) (2 points)

**Q-3.** Based on the description above and your own knowledge of undergraduate application process and the university, draw a domain model for the system identifying conceptual classes, attributes of the conceptual classes, and their associations. (5 points)