

1. What is the waterfall model for software development?

2. What is a class (in the context of object-orientation)?

3. What is a design pattern? (Indicate level of familiarity from 0-10, with 10 being extremely proficient and 0 being no knowledge.) If applicable, please briefly describe your experience.

4. What is an object-oriented framework? (Indicate level of familiarity from 0-10, with 10 being extremely proficient and 0 being no knowledge.) If applicable, please briefly describe your experience.

5. What is testing? How do you know when you have a successful test? (Indicate level of familiarity from 0-10, with 10 being extremely proficient and 0 being no knowledge.) If applicable, please briefly describe your experience.

12. Using an object-oriented modeling language (e.g., OMT, UML, etc.) Draw a class diagram for a student enrollment system that reflects the following specification.

A Student Enrollment System (SES) comprises courses and people. Each course has a name, number of credits, and capacity. A student may enroll in the course, drop the course, or audit the course. There are two main groups of people involved in the SES: students and professors. There are two types of students, undergraduate and graduate students. A professor may teach one or more classes. A student may be involved with zero or more classes, where involvement refers to enrolling, dropping, or auditing.

11. Draw a simple sequence diagram that describes how a student would use the SES to enroll in a course. Be sure to show traceability back to the above class diagram.