

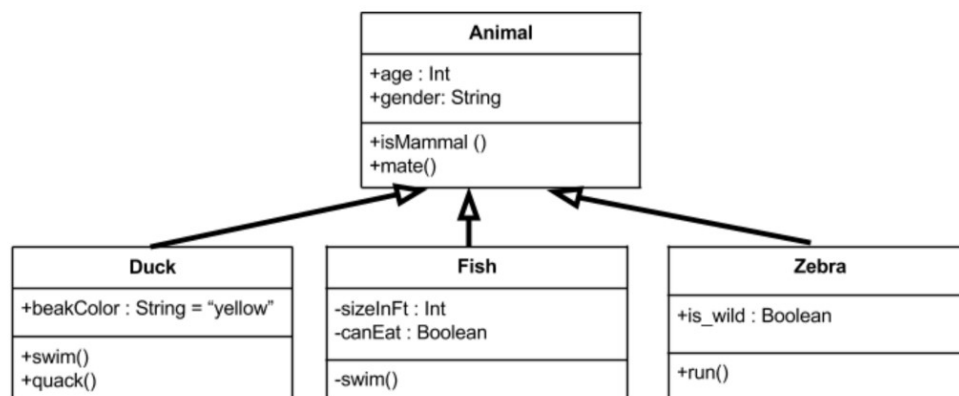
NATIONAL SCHOOL OF BUSINESS MANAGEMENT

Midterm Exam

CS205.3 SOFTWARE ARCHITECTURE

- Answer all four (4) questions; Duration One (1) hours.
 - Must use the front page provided to answer the questions
 - You may use hand drawn images for illustrative questions
 - Answers are subjected to plagiarism (above 40% means 40 marks max)
 - Marks will be capped to 40% after the allowed time limit
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1. Briefly explain the advantages of explicit software architecture.
(10 Marks)
2. Name and explain three architectural styles widely used in web application development.
(20 Marks)
3. UML is a family of graphical notations. Answer the questions below about UML.
 - a. Name three (3) UML diagrams widely used in OO development.
 - b. Take a look at the class diagram below. Write Java/C# code snippets described in the diagram.(30 Marks)



4. Design pattern is "A proven solution to a common problem in a specified context." Answer the questions below about design patterns.
- Name and briefly explain three (3) design patterns.

```
public class Logger
{
    public Logger() {}

    public void LogMessage() {
        //Open File "log.txt"
        //Write Message
        //Close File
    }
}
```

- Identify why the above code might fail.
- Suggest which design pattern is appropriate to make the Logger a unique object.

(40 Marks)