

# Review

# Exam Breakdown

exam  
project

Design	4
Process and Model	4
Modeling Software	4
Layered Systems	4
Shared Information Systems	8
Dataflow Systems	4
Clients, Servers, Brokers, and Components	4
Modularity	8
Module Development	8
Separation of Concerns	4
Database Technology for Embedded Control	4
Aspect-Oriented Programming	4
Feature Interaction	4
Generative Programming and Feature Modeling	4
OO Design Principles	8
Something Else	4
Project Material	20
<b>Total</b>	<b>100</b>

Draw an architectural diagram of your (group's) implementation of the IPPhone system showing all subsystems and their interfaces all dependency relationships between subsystems and the organization of the system into layers. Label everything carefully.

Draw a dataflow diagram which illustrates the communication between subsystems (of your IPPhone system) involved in the following scenarios

a billing period comes to an end and a bill is generated for a customer

a customer's account is closed and his phone service is terminated

For each communication path in the diagram, describe the events or communications which pass along it during the scenario.

Choose two modules in your IPPhone system which are coupled in one direction only and are implemented in different programming languages.

(If your system is entirely in one language, choose a coupling from a module of yours to an off-the-shelf module.)

Describe the dependency and characterize the coupling.

(Use the coupling terminology introduced in class.)

For this particular case in your design, suppose that the dependent module is actually more stable than the depended-on module. What change to the architecture might be appropriate under this assumption, and why?