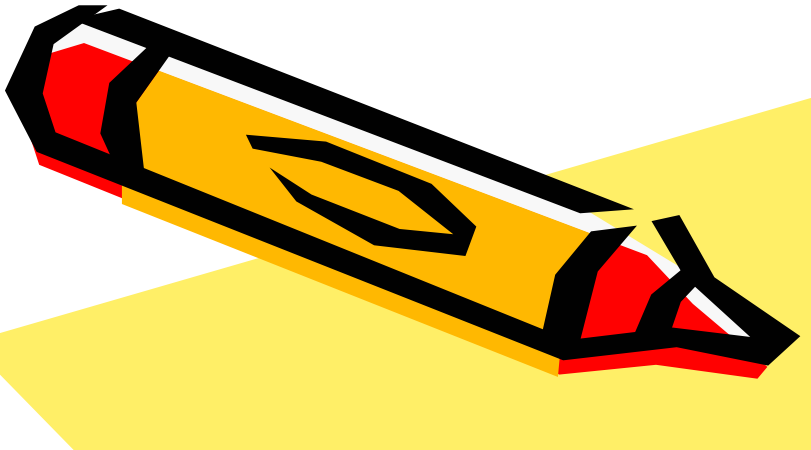
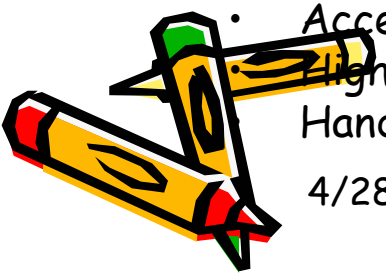


# Final Review

Bina Ramamurthy

# Summary of Topics Covered

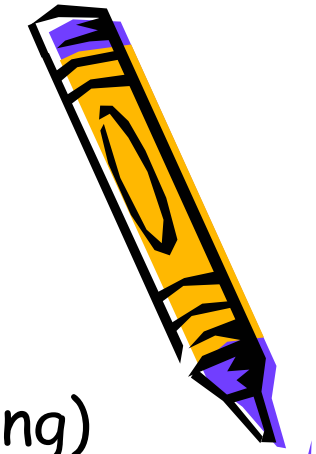
- Client-server programming
- Request-response model
- Open database connectivity, Oracle 9i database
- Declarative vs programmatic specification of capabilities
- Java Messaging and Notification
- Enterprise Java beans
- Enterprise Java Programming with J2EE and Macromedia JRun4
- Grid: compute, data and service-oriented grid
- Grid services and their capabilities
- Open Grid Services Architecture (OGSA) and Open Grid Services Infrastructure (OGSI)
- Virtual Organization
- Globus core services
- Grid higher level concepts such as virtualization and federation
- Sotomayor's tutorial: Modified versions in basic grid service
- Access ecommerce open API such as Amazon's E-Commerce Service
- Higher level services such as index services and discovery services
- Hands-on applications using Globus(3.0.2)-based services



# Final exam

- Date: 5/5/2005
- Time: 8-11am
- Location: Baldy 101
- Format: 4 sheets of an information you like; no sharing of any material in class; bring your own material
- Bring pencils, pens and erasers

# Exam Format (4X20+2X10)



- Globus core: Service data (involves code writing)
- High-level service: index service
- Application: High volume data real-time application such as magnetic fusion experiments and simulation
- Project 2-based question (basic service)
- Virtual organization and related grid-specific concepts (short answers : 10 points)
- Advances and improvements in GT4 (10 points)

# Hints on answering long questions

- Requirement analysis
- Architecture (building blocks/ components)
- Protocols (rules)
- Implementation and/or Application Programmer's interface
- Adapting existing models
- Steps or tasks
- Use block diagrams, UML diagrams wherever needed.

# Sample short questions

1. What is meant by virtualization?
2. What is a virtual organization (VO)?
3. What is federation of information?
4. Difference between a grid service and a web service
5. Describe a Grid Service-based Application model. Use a block diagram.
6. What is the difference between transient and persistent services?
7. What is a portType?
8. What is a service data? How can it be used by applications?
9. What is Notification? How can be used by applications?
10. What is a (i) Factory and (ii) Registry? How are they related?
11. Difference between namespace and package as in namespace mappings.