Q1.
Do some web research and write approximately 250 words on each of the following software technology luminaries. For each include something about their background and why they are considered leaders in the field. List some of their most important publications.

Please do not simply cut and paste sentences from the web. I’m looking for your voice.

- Tim Bray
- Tim Berners Lee

Q2.
Object Design.
Consider the following UML diagram:

Use java/ C++ or the language of your choice to define these three classes. Make sure you define your classes to conform the UML diagram so that:

- A Flight “knows” its plane
- A Plane “know” all the flights associated with it
- A flight “knows” its passengers
- A Person passenger “knows” its flights.

Assume the following constructors:
Flight(int flightNumber);
Airplane(int numberOfSeats);
Person(String name);
Use Case 1
Consider the use case where we assign a plane to a flight.

Assume we are in some main method where we have already created a plane and a flight.

Airplane p = new Airplane(120);  // create plane with 120 seats
Flight f = new Flight(1173);      // create Flight 1173

Clearly we need a method with a name like: assignPlaneToFlight to associate a plane to a flight.

A. Which class should be responsible for this method. (pick one of the three)

B. Based on your answer to A, define the method's parameters and show the code that sets up the associations between the classes.
**Use Case 2**
Consider a passenger signing up for a flight.

Assume we are in some main method where we have already created a plane and a flight.

```java
Person passenger = new Person("james gosling");
```

Clearly we need a method with a name like: **assignPassengerToFlight**.

C. Which class should be responsible for this method. (pick one of the three)

D. Based on your answer to A, define the method’s parameters and show the code that sets up the associations between the classes.

E. Show how the Flight class can implement

```java
int availableSeats()
```
Q3. Facebook

Facebook is now becoming a programming platform that allows Facebook applications (social networking) to be constructed by accessing the Facebook API, available to developers. Facebook now has over 50 million users worldwide and is growing rapidly. Microsoft has just won a high-profile technology industry battle with Google and Yahoo to invest in the social networking upstart Facebook. — Microsoft is investing $240 million for a 1.6 percent stake in Facebook.

Next session we will talk about the semantic web and the Facebook programming interface. To get ready for that discussion, sign up for a Facebook account at www.facebook.com

As you explore Facebook, ask yourself:

• What are the entities/objects/topics/things in facebook?
• What properties do those entities/objects/entities/topics have?
• What are the relationships/associations between the entities/objects/topics/things

Prepare a one page diagram that outlines the above. You may use UML or the diagram notation we worked on in class. The goal is to capture your “knowledge” of what Facebook is all about.

(Note: The reading “The TAO of Topic Maps” may help with this).
Q4. Prepare a one page description of what you plan to present as part of your final project. Include:

- Title
- Executive summary
- References (web-based or print) that you plan to use.
-------- For Exam in Session 4 ------

There will be questions drawn from the following readings.

(1) The Tao of Topic Map  
http://www.ontopia.net/topicmaps/materials/tao.html

(2) Tim Berners-Lee’s Scientific American Semantic web paper  
http://www.ryerson.ca/~dgrimsha/courses/cps720_02/resources/Scientific%20American%20The%20Semantic%20Web.htm

Also, the following questions will be asked:

(3) What is XSLT?

(4) Give an example (based on web searching) of how XSLT is used to transform XML into ???
(your job is to fill in the ??? and provide an explanation).