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Administrivia

- Reminder: Homework 1 design due today (at midnight). Homework 1 code due date extended until next Tuesday.
- Tentative quiz dates on Web — first one next Tuesday. Sample code from class also posted. Notice also the “practice problems”.

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More Administrivia

- A request: You will turn in almost all work for this course by e-mail. Please do include the name or number of the course in the subject line of your message, plus something about which assignment it is, to help me get it into the correct folder for grading.
- Also: All homework is considered pledged work. Write “pledged” on hardcopy work, and include it in comments for programming assignments.

A Little About Inner Classes

- As mentioned earlier in passing: Java classes can contain classes (“inner classes”) as well as variables and methods.
- Inner classes can be named, local, or “anonymous”. We’ll see good examples of the first and last later. For now, just realize that this is possible.

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“Generics” in Java

- Java library includes classes for collections of things (`ArrayList`, e.g. — like an expandable array). Originally, could put any kind of `Object` in one of these. Nice, except that then there’s no way to know anything about types of objects inside except by using reflection (*much* later, if at all) or `instanceof` operator. Must also use explicit casts to do much with objects retrieved from collection.

- So Java 1.5 (a.k.a 5.0) introduced “generics” — Java’s answer to C++ template classes, though not exactly the same. Idea is to allow you to specialize a collection — so, an `ArrayList` of `Integer` objects only, or an `ArrayList` of `Account` objects only, etc., etc. Syntax uses angle brackets, e.g., an `ArrayList` that can hold only `Accounts`:

```
ArrayList<Account> list = new  
ArrayList<Account>( );
```

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“Generics” in Java, Continued

- Used extensively in the game framework (see API for examples).
- (Example(s) as time permits.)

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Enumerations in Java

- Another addition to Java as of 1.5 — enumerations. C allows something similar, but not as nicely packaged.
- (Examples as time permits.)

A Little More About Homework 1

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- You're not committing yourself to anything at this point, but try to be as detailed as you can — so I can try to spot potential trouble. Also good to think in terms of a basic design (not too ambitious) plus extras. Keep in mind that what you do has to fit into an existing framework. (That's actually one of the pedagogical goals.)
- What you will actually turn in is HTML documentation of your planned game's main class — put it in your `Local/HTML-Documentation` and send me mail saying "ready to be graded". (Complete instructions in homework writeup.)

Minute Essay

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- Is the reading and what we do in class making sense, or do you have questions?