

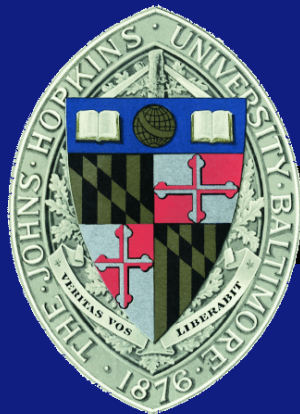
Lecture 10.1

Concurrent Java

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A Basic Concurrent Program

- Objects/Classes
 - Runnable
 - Thread
- Methods
 - Runnable.run()
 - Thread.start()

See [SimpleConc.java](#)



Thread versus Runnable

- Multiple ways to create threads
 - Implement Runnable interface
 - Inherit from/extend thread
- Runnable: is an interface
 - Allows for inheritance from other classes
- Thread is a class
 - Cannot extend Thread and another class, e.g. Applet
 - Should only inherit when you want to extend base class' functionality
- Use Runnable: it' s preferable



Anonymous Objects?

- Simple example uses anonymous object
 - No performance value
 - Less code, but of little simplifying value
 - RB: shorter code is often not better code
 - e.g. compilers are really good at removing unused names, parsing {}'s, etc
- Thread object variables allow for the manipulation of thread objects



Awaiting thread completion

- Join() a thread See [VolatileWorks.java](#)
 - Await for it to finish
 - Return immediately if already finished
 - Finished threads are not GCed, because of the reference

