POSIBLE ROPICS
PROFILE RURE
20th LECTURE

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#### **Outline**

- Possible Topics

### Possible Topics about C++

- Namespaces
- Imperative Language (vs. Declarative Lang.)
- Object-Oriented Programming
  - Design Principles
- Separating Interface from Implementation
- C vs C++
  - Static
- Function Definitions

# Possible Topics about C++ Cont'd

- Function Prototypes vs Signatures
- C++ Data Types
- Storage Classes and Scope Rules
- C++ Function Call Stack and Activation Records
- Inline Functions
- References
- Default Arguments
- Function Overloading and Templates
- Recursion

## Possible Topics about C++ Cont'd

- C++ Pointers
- Constructors and Destructors
  - Copy Constructors
- const Members
- Member Initializer
- friend Functions and Classes
- Static Members
- Inheritance
- Polymorphism
  - Virtual
- Exception Handling

#### Possible Topics about Java

- Differences between Java and C/C++
- Java Program Execution
- Member Access Control
- Static Modifier
- Locating Classes
- Classes, Objects, and Packages
- Methods & Operators
  - Method Overloading
  - Initialization Order
- Java I/O Systems

### Possible Topics about Java (Cont'd)

- Composition vs Inheritance
- Inheritance
  - Initialization
- Final
- Polymporphism
  - Upcasting
  - Downcasting
- Interface
- Exception Handling
- String, Formatter, and Scanner
- Container