

Lecture 8 In-Class Example

Interfaces, Overriding, Overloading, and Polymorphism

◆ Ex: RPG Character System

- **Files:** RPGExample.java
- **Topic:** Building an RPG character system using interfaces to define playable behavior, with polymorphism to handle different character classes that override attack methods and use constructor/method overloading.
- **Learning Goals:**
 - Create and implement interfaces with method signatures.
 - Understand how interfaces define contracts that classes must follow.
 - Use `@Override` annotation when implementing interface methods and overriding parent methods.
 - Implement method overloading (same method name, different parameters).
 - Implement constructor overloading (multiple constructors with different parameters).
 - Demonstrate polymorphism by storing different character types in a parent class array.
 - See how different character classes implement the same methods differently.
 - Understand dynamic method dispatch (calling overridden methods at runtime).