Overview of Week 7

#	Date	Lectures	iPad Notes	Study Materials
7	WED, Oct 28 to TUE, Nov 3	▶️ **Playlist for Week 7** (≈ 3 hours) • Lecture 7 - Introduction and Overview of Week 7 • Lecture 7 - Part 5: Static Type vs. Dynamic Type, Expectations • Lecture 7 - Part 6: Intuition - Polymorphism vs. Dynamic Binding • Lecture 7 - Part 7: Multi-Level Hierarchy - Ancestors vs. Descendants • Lecture 7 - Part 8: Rules of Substitutions, Change of Dynamic Type • Lecture 7 - Part 9: Type Casting, Runtime Assertion Violations • Lecture 7 - Part 10: Polymorphic Feature Arguments: Supplier vs. Client • Lecture 7 - Part 11: Polymorphic Collections • Lecture 7 - Part 12: Polymorphic Return Values, Concluding Remarks	📙 Intro 📙 Pre 📙 Post	• <u>Required Tutorials</u> 　✔ The Eiffel Testing Framework • <u>Slides</u> 　▪ Lecture 7: Inheritance (expanded from W6) 　▪ Lecture 7: Inheritance (expanded from W6) [4up] 　▪ <u>Written Notes</u>: Static Types, Dynamic Types, Type Casts • <u>Diagrams</u> 　▪ Inheritance Hierarchy of <u>Smartphone Classes</u> • <u>Questions?</u> 　▪ <u>Post Your Questions in this Document.</u> • <u>Exercises</u> 　▪ Exercise: Inheritance (Inferring Expectations from Static Types) • <u>Source Code</u> 　▪ **Recommended Exercise 1**: Expanded <u>W6's design</u> to reproduce the various fragments of polymorphism and dynamic binding from W7's lecture. 　▪ **Recommended Exercise 2**: Create a new project to reproduce the various fragments related to the running example of smart phones.

Learning Objectives of Week 7

- Static Types, Expectations, Polymorphism
- Dynamic Types, Dynamic Binding
- Type Casting – Motivation, Upward/Downward, Runtime
- Polymorphic Arguments and Return Values
- Polymorphic Collections

Milestones of Week 7

- Study ETF Tutorial Videos
- Work on Lab4
- Complete Quiz6
- Start Lecture Series W7