

**INF 212 Analysis of Programming Languages**  
**Project 4 – Reflection**  
**Due date: 5/13**  
**Demo date: 5/14**

**Goal:** Get in-depth knowledge of the Java reflection API.

**Code base:** <http://www.ics.uci.edu/~lopes/teaching/inf212W12/projects/INF212-Reflection.zip>

**Task:** Given the menu classes and interface, write a program that does the following, all of which (except the first bullet) *reflectively*:

- It asks the user which menu class (s)he wants
- Loads the corresponding class *dynamically*, accounting for possible errors
- Prints out all the interfaces that the chosen class implements
- Prints out all fields, constructors and methods of the chosen class, public and private, along with corresponding type signatures, as completely as possible
- Instantiates an object of the chosen class
- Executes all methods of the chosen class
- Changes the values of fields

Your program should take the person looking at it through a tour of all the reflection capabilities. More is better.