Mathematisch–Naturwissenschaftliche Fakultät
Fachbereich Informatik (WSI)
Praktische Informatik
Prof. Dr. Klaus Ostermann

Jonathan Brachthäuser   November 14, 2014

Homework Assignment 4
Software Design & Programming Techniques (WS2014)

The deadline for this assignment is Nov 12, 23:59. Hand in the assignments via email to jonathan.brachthaeuser@uni-tuebingen.de. Please include all names of the group members in your email.

1   Interface Segregation Principle

Answer the following questions regarding the Interface Segregation Principle (ISP):

1. What is the ISP?

2. What is the relation to the SRP we have seen in previous lectures? What are similarities? What is the difference?

3. What is the relation to the LSP we have seen in previous lectures? What are similarities? What is the difference?

4. Please find a violation of the ISP in a open source software project of your choice. Explain why it might be problematic in practice.

2   Dependency Inversion Principle

Answer the following questions regarding the Dependency Inversion Principle (DIP):

1. What is the DIP?

2. Given the following design which adheres to the DIP. Assume you want to use an existing third party library on the utility layer. Why can't you just use the design as it is? Please adapt the following design to also support this use case.