Clean Code
Chpt 3 – Functions
CS342 – Fall 2017
Functions

- Functions, Methods, Procedures, Subroutines, ...
  - Different Languages /Paradigms use different Names
  - Java uses the term “Methods”

- Design Principle: SMALL!
  - First Rule of Functions:
    - Make them small.
  - Second Rule of Functions:
    - Make them smaller than that!
Function Design Principles: Small

• Blocks and Indentation
  • One line only OR One Function Call Only

• Do One Thing
  • Functions should do one thing.
  • They should do it well.
  • They should do it only.
  • Graphic in the Text refer to the movie City Slickers
Functions Design Principles

• Functions should follow the Single Responsibility Principle
• Functions should follow the Open/Closed Principle
  • Bertrand Meyer, OOP
  • Software Entities should be open for extension, but closed for modification
• Functions should be loosely COUPLED but highly COHESIVE
Functions Design Principles

• Functions should use descriptive names
• Functions should have less than 3 arguments
• Functions should have no side effects
• Functions should avoid output arguments
• Functions should use Exceptions over Return Error Codes
• Functions should avoid duplication