



November 17, 2017

Week 13, Class #38

Reusable Apps

Mark Seaman

MWF – 10:00-11:30 - Kepner 0095F

# This Week – Risk Management

---



Last Week

Dev Ops

Monday, 11-13

Technical Debt

Next Week

Teams

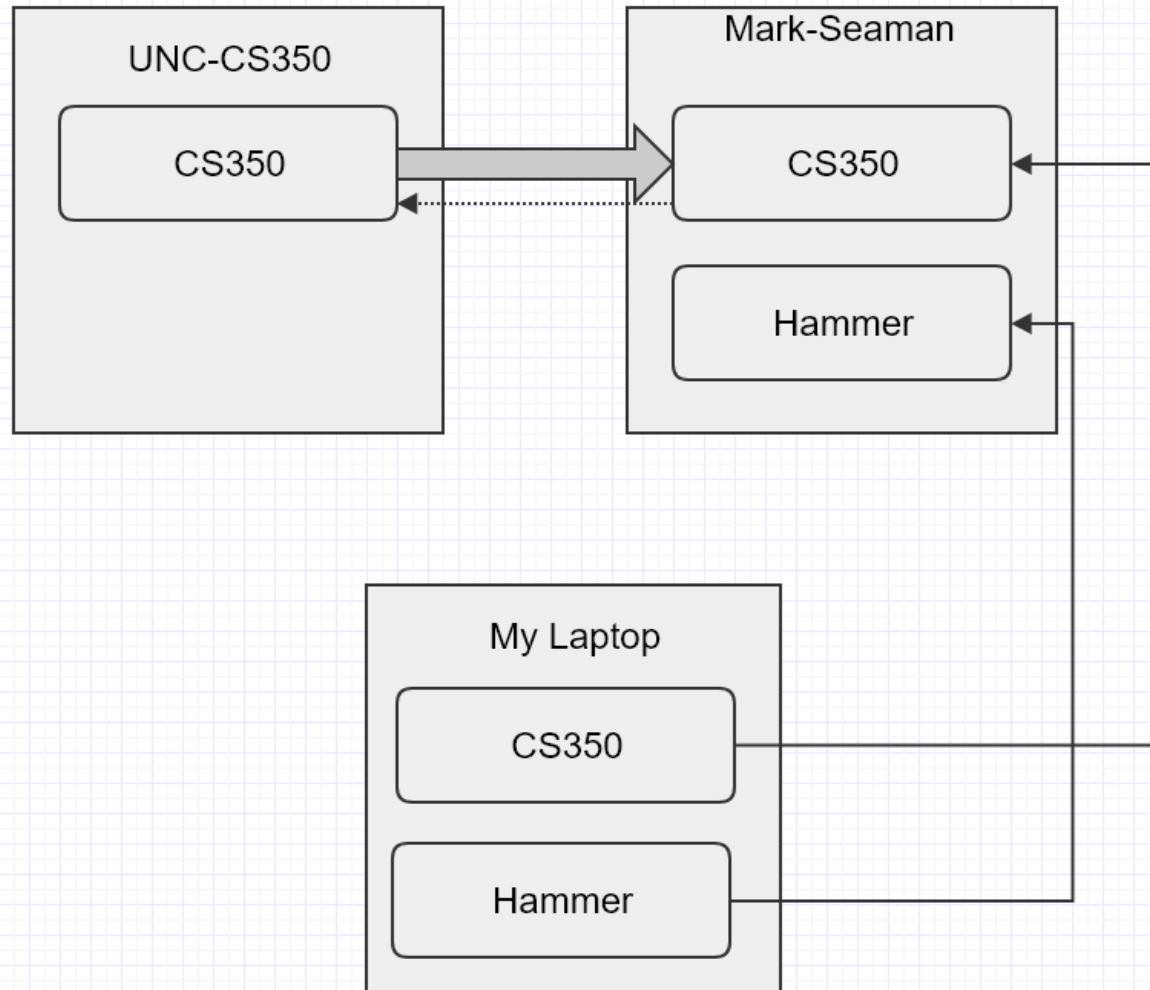
Wednesday, 11-15

Refactoring

Friday, 11-17

Reusable Apps

# Github Repos



# Git Exercises

---

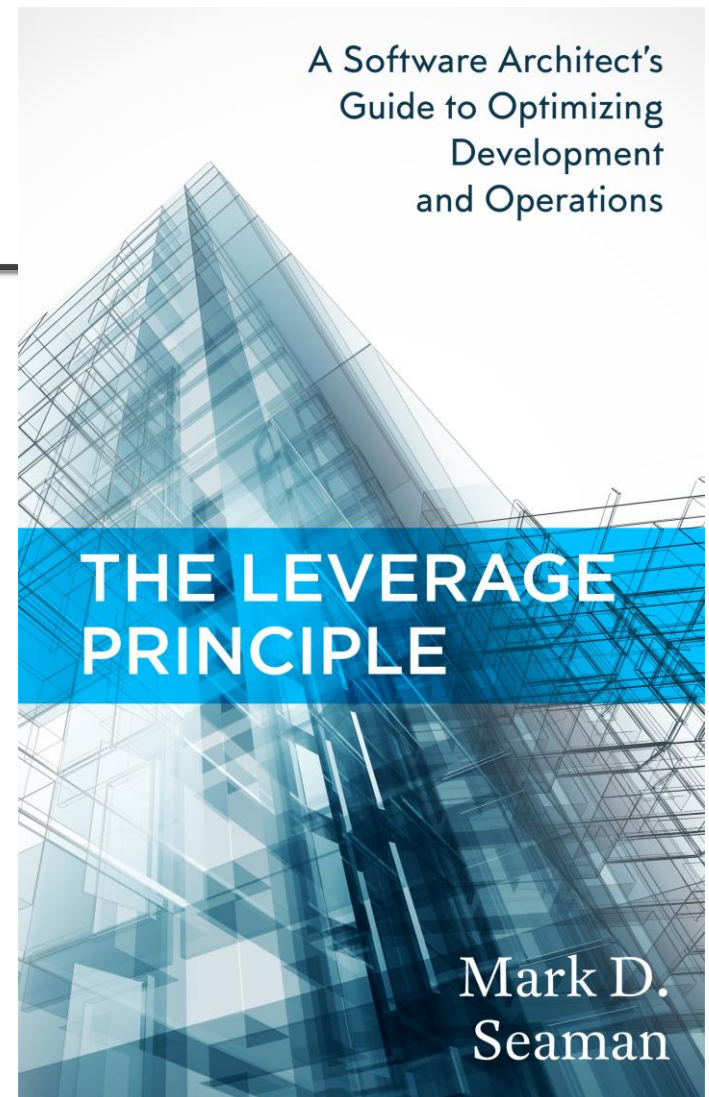
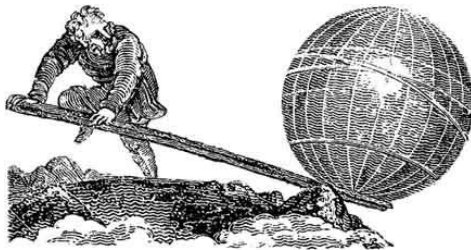


- **Git Push** 11/13 -- Install Github Desktop
- **Fork Repo** 11/15
- **Pull Request** 11/27

# Leverage Principle

---

- ✧ Technical Debt determines cost
- ✧ Best Practices reduce debt
- ✧ Areas of concern
  - Development
  - Operations
  - Teams



# Reusable Web Apps

---



## ✧ Typical application

- Manage data
- Forms entry
- Business logic
- Database

## ✧ Leverage what you did last

## ✧ Build a reusable infrastructure

# Reusable Web Apps

---



✧ How many times should you write the code?

# Reusable Web Apps

---



✧ How many times should you write the code?

1. Explore the problem
2. Build the solution
3. Improve structure
4. Build for reuse



# 50 Tricks

---



- ✧ Any project can be completed with about 50 tricks
- ✧ A day to learn and an hour to apply
- ✧ Prototype in a week; MVP in a month

# 50 Tricks for Web Development

---



- ✧ Project
- ✧ User Experience (UX)
- ✧ Views (Front-end)
- ✧ Data (Back-end)
- ✧ Test
- ✧ Automation
- ✧ Hosting

# 50 Tricks for Web Development

---



## ✧ Project

- Milestones
- Core features
- Rapid prototype
- Task breakdown
- Burn-down graph
- Weekly deliverable
- Customer feedback

# 50 Tricks for Web Development

---



## ✧ User Experience (UX)

- User Stories
- View wireframes
- View matrix (list, add, edit, detail, delete)
- Users and security
- Data input and output
- Automation interfaces

# 50 Tricks for Web Development

---



## ✧ Views (Front-end)

- Templates (HTML)
- Style (CSS)
- Business logic (JS)
- Forms
- Page rendering
- System logging
- Model reformatting

# 50 Tricks for Web Development

---



## ✧ Data (Back-end)

- Object Models (ORM)
- Queries
- Combining data
- Sorting and searching
- Persistence
- Import
- Export

# 50 Tricks for Web Development

---



## ✧ Test

- Run all test
- Development Loop – Quick test
- Expected results
- Approve results
- Cached test results
- Escalating test results
- Presentation of results

# 50 Tricks for Web Development

---



## ✧ Automation

- Application command shell
- Hourly task
- Single command deploy
- Script generation
- Ssh
- Email integration
- Command sequences



# 50 Tricks for Web Development

---



## ✧ Hosting

- Digital Ocean Droplets
- Multi-domain hosting
- Backup & Virtual Images
- Lets Encrypt
- Basic SLA
- Monitoring System Logs

See you Monday, Nov 27

---



HAPPY THANKFULNESS !

X



✧ X