



October 25, 2017
Week 10, Class #28
Pair Programming

Mark Seaman
MWF – 10:00-11:30 - Kepner 0095F

This Week – Code



✧ Monday, 10-16

- Lecture – Dev Loop

✧ Wednesday, 10-18

- Lecture – Pair Programming

✧ Friday, 10-20

- Lecture – User Stories

Last Week

Design

Code

Next Week

Test

Upcoming Actions



- ✧ Markdown Exercise 10/20
- ✧ Design Plan 10/23
- ✧ Development Exercise 10/25
- ✧ Pair Programming Exercise 10/27
- ✧ Exam on Friday, 10/27

Test-Driven Development



✧ Each feature

- Select a feature
- Write a failing test
- Write just enough code to pass test
- Refactor until beautiful

✧ Development travels at the speed of test

Development Exercise



✧ Development loop

- Edit
- Test
- Integrate

✧ Create Author and Article

- Create
- Read
- Update
- Delete

Pair Programming Guidelines



- ✧ Work in Pairs (1 keyboard + 2 brains)
- ✧ Switch for every iteration (micro-story)
- ✧ Test - Code - Refactor (Fail, Pass, Beautify)
- ✧ Typer - Talker
- ✧ Check your ego at the door —> Cooperate
- ✧ Save both product and test code
- ✧ Execute all tests for each micro-story
- ✧ Record a log of your time on each test
- ✧ Use the main script hack to run your code directly

Development Exercise



✧ Exercise Instructions

- <https://github.com/UNC-CS350>
- CS350
- Exercises
- Pair_Programming.md

✧ Exercise Results

- [seam1870/crud.py](#)

Version Control



- ✧ Create a folder in the **Exercise Results** with your **BearID**
- ✧ Convert your plan into Markdown
 - Project Plan
 - Technology Plan
 - Design Plan
 - Development Plan

Author CRUD - Functions



- `def add_author (name, email, password):`
- `def list_authors ():`
- `def get_author (name):`
- `def edit_author (name, email):`
- `def delete_author (name):`

Article CRUD - Functions



- def **add_article** (user, title, body):
- def **list_articles** (user, title):
- def **get_article** (user, title):
- def **edit_article** (user, title, body):
- def **delete_article** (user, title):

Power of Wishful Thinking



- ✧ Top-down design
- ✧ Bottom-up construction
- ✧ Middle-out testing