Week 3-4: Proj Dev: Using and Updating Repository Anne George

# Part 1: Minutes on TDD Training

Test Driven Development

* TDD is under the umbrella of Agile
* It is found on XP
  + You first write the tests than you code.
    - Write a failing test (meaning the system will fail because the feature has not been implemented yet – standard error).
  + Code the feature to pass the test.
  + Refactor the code to make a good design.
* Let the test drive your design, what to do, what to do next, and when you are done.

Unit Testing (conventional testing definition)

* You can write tests at any point during development
* Tests the smallest unit that can be tested in isolation (methods)

Behavior Driven Design

* High level (uses requirements)
* Scenarios meant to test behavior (user stories)

Graphical user interface, application

Description automatically generated

Story

Timeline

Description automatically generated with medium confidence

Test plan

Text

Description automatically generated

Assert function can be a verify

(automated test)

Scope

Graphical user interface, text, application, website

Description automatically generated

Text, timeline

Description automatically generated

Text

Description automatically generated

References:

* TDD slides from Brother Clements
* https://cs.gmu.edu/~johnsonb/fall20/Lecture\_7-AOch2.pdf
* https://softwareengineering.stackexchange.com/questions/59928/difference-between-unit-testing-and-test-driven-development
* https://softwareengineering.stackexchange.com/questions/256144/test-driven-design-is-not-unit-testing

## Questions:

* Principles:

Test is written before coding, test drives development, TDD is part of XP under the agile umbrella, test is written for failure.

* What advantages as a developer does TDD provide?

You only write code that is needed, the code is easier to maintain, the test documents the code, there is less debugging, it is easier to refactor, and the design is modular.

https://www.geeksforgeeks.org/advantages-and-disadvantages-of-test-driven-development-tdd/

* What steps do I do to implement TDD?

Iteration of Action -> Result until Verify

* What tools or software can I use to do unit testing?

Testing can be automated with asserts, and they can be written in a table format or text format.

# Part 2: Personal Development Folder

https://github.com/annecoberg1/Internship.git

# Part 3: Sprint

Meeting minutes submitted with this document.