

# CS 441 Software Engineering

## Assignment 1

**Due on Monday, September 9, 11:59PM.**

### Individual Portion

1. Read the paper “No Silver Bullet: Essence and Accidents of Software Engineering” and answer the following two questions.

- (1) Fred Brooks identified four essential difficulties of software systems. Based on your own experience and understanding of software development, which difficulty do you think is most challenging, and which difficulty is least challenging? Please justify your answer. (20 Points)
- (2) Pick one of the software methods or tools that you have used, and specifically explain whether or not you think this method or tool is a “promising attack” on the essential difficulties mentioned above. (20 Points)

**Grading Criteria:** justification (concrete, consistent), writing (clear, no spelling errors).

2. Discuss the main differences between prototyping and incremental development. (20 Points)

3. Specifically describe a software application that you would like a group of students in our class to build as their class project. If your application is selected by the instructor, you will receive 1 extra credit (on top of your overall grade) at the end of the semester. Of course, you can still choose your application as your class project. (40 Points)

Note that you may lose points if your description is too short or too abstract for the instructor to understand.

### Group Portion

None.