

CS 441 Software Engineering HW #1

- 1) (1) The difficulty that is the most challenging to me is the complexity. The issues that arise from complexity directly correlate to the communication among team members. This can lead to product flaws, cost overruns, and schedule delays. Another issue is the difficulty of extending programs to new functions without creating side effects. The least challenging difficulty to me is the invisibility. Non-visualization of software can make it challenging to understand difficult concepts.

(2) I believe object-oriented programming can be a very “promising attack” on the essential difficulties referenced above. Specifically, OOP makes the complexity of programs and functions much easier to handle when the person coding is able to use high level languages and object-oriented code. The two difficulties, changeability and conformity, would not be as problematic due to the nature of OOP. Invisibility of software would make it harder conceptually, but OOP helps resolve that issue.

- 2) Prototyping consists of building a software to understand the requirements first, instead of producing the requirements up front. Incremental development consists of creating a software little by little, having the requirements up front. The main difference between prototyping and incremental development is the requirements being completed in the first stage being necessary for incremental development but not prototyping.

- 3) ***Streaming Aggregator:*** Aggregates multiple streaming services into one app.

Features: Allows user to connect their streaming service accounts they are subscribed to, combines all streaming services into one feed, shuffle mode where it selects a random tv show/movie for the user based on the user’s interests

User Interaction: User opens app to a home feed that includes tv shows and movies from various streaming services. User can select a show or movie and watch it directly from the app.