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APC Assignment 2

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❖ **Waterfall Model**

- Requirements:
 - Each user must have a WIT ID
 - Each user must either be a student, instructor, or admin
 - Goal is for the database to work for 100+ users
 - Must contain course information
 - Must be able to view schedule and access the
 - Must have a GUI
- System Design
 - An interactive interface to display the necessary functions the user needs
 - Students can view their schedules and register, etc...
 - Instructors can see available courses and so on...
 - Admin has access to see everything
- Implementation
 - Using OOP classes to create the user database
 - Code(s) written in C++, Python, and Java
 - Inherited classes
 - Tested the functions by calling them in Driver code
 - Tested the attributes by calling the first and last name, and ID
- Integration & Testing
 1. Test the code by creating instances in the Driver file
 2. Calling the functions to see which one works and which ones don't
 3. Transforming the code into a GUI with a user-friendly interface rather than viewing from the terminal
 4. Adding a database or importing from a list of 100 students, 10 instructors, and one admin to find bugs
 5. Reiterating through steps 1-5 to find more bugs and debug
- Operation and Maintenance
 - Put code under stress test to see where the bugs are
 - Try to organize code using OOP approaches so that we can practice encapsulation since this is a database with sensitive information
 - Try to make methods private and inaccessible
 - Update small and minor things such as variables, loops, conditional statements