Computer Science Education Game

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**Project Type:** Software Development

**Project Description:** We intend to create a game which will run locally. The game will include a professor who navigates around a school and interacts with various students. The game incorporates visual novel aspects when it comes to interacting with the various students. Conversations with the students can be based upon different computer science topics and incorporate nonogram puzzles. The professor’s goal is to help the students learn about computer science while also both teaching the user and testing their logical problem solving skills.

**Resource Requirements:**

* Python: This will support the interaction between the user interface, application, and database. Python was our chosen language to make the game functional.
* SQLite: This will hold information about the computer science questions, player data, and the puzzles. The use of the database makes it so all the information does not need to be directly coded within Python and instead can be accessed by querying the database.
* RenPy/Pygame: This will be used for the user interface and to help fuel game functionality.

**Tools:**

* Windows
* macOS

**Processes:** The software methodology we will be using is the agile methodology. The agile methodology involves the team developing the software in smaller increments. This fits well with how we intend to develop the system because we plan to make the game function for a single day and then incrementally scale it up to the length of a week. This is also evident in our schedule within the project proposal.

**Expected Deliverables:**  We want a finished game in which the user can interact with students across several rooms for a period of, at least, 7 days where the puzzles and computer science information are random.