Group 2 Project Plan- Puzzles Helper

Team members:

AJ (Team Liaison): amjo3456@colorado.edu

Joshua Nguyen: jong5039@colorado.edu

Project description:

Puzzle solvers have a hard time remembering what puzzles they have solved and often get stuck at one point on a puzzle. As collections grow and puzzles are traded around, it is hard to remember what puzzles have been solved and what you thought of them. Also, many times puzzle solvers will finish their current puzzle and not know what puzzle they should try next. The application will help track puzzles that have been solved along with recommending new puzzles to try. If the user ever gets stuck, the app can provide guidance on the next step of the puzzle, without giving away the whole solution. The app will help track every puzzle they have solved. It could also recommend new puzzles that are similar to their current favorite puzzle. The user group is anyone how to like to solve physical puzzles like the Rubik's cube or the Gordian knot.

Our new idea for the application will expand on the original idea of having an achievement tracker by implementing a comment system where if a user requests help on a stage of the puzzle then can see other online users hints who have solved the puzzle before. These hints will be other users input and will be

peer reviewed to check for consistent correct answers and to make sure misleading information will not be posted and also to prevent to assistance. . We would also like to add a progress tracker for each puzzle.

We will consider implementing the following features:

- Scoring system- awards coins to users for completion of the puzzle
- Time limit - Have a set time between each request of a hint to encourage some self-problem solving, and to prevent the frequent use of hints.
- Limit on a number of hints - use the coin currency to purchase hint to help solve the puzzle.
- Coins - Use to make in-app purchases.

Meeting schedule: every Wednesday at noon

Google Drive:

https://drive.google.com/drive/u/1/folders/129abb8NaqcnOPl4jCMBrK-Gci8J8Mkay

Slack: https://hci-puzzle.slack.com/messages/DDBV9UTH7/

Research Plan:

Cultural Probe:

The cultural probe will be a package of some writing utensils, notepad, some money, controllers for video games and a camcorder. All these will be given out to the testers of new puzzles that have a history of great problem-solving skills or would be a good candidate to gather information like someone that has access to an early release of games and sent all around the world who have volunteered to be a test group of this

project. The cultural probe package can be used around the world to record data to be sent back to the main headquarters. This data that will be needed to collect is how this app can be used with all sorts of games worldwide, so we expand the range of puzzle solving to video games all around the world. This will let users of region locked games communicate with others to solve levels and puzzles initially with new games and eventually come up with an agreed solution and steps to reach that solution. Now with games that are available worldwide would be able to communicate with others that local puzzle solver has not spoken to with yet. This will expand the network of available options to reach the solution for the puzzles.

The camcorder will be used to record specific step and methods to reach a certain percentage of the solution and could be used as a recording device to express any recommendation for further improvement to the application. Similar to the writing utensils and notepad will help users work out a possible solution or for note taking, this may be used for any purpose to help them or the application. The controllers will be provided as testing many games over a long period of time will cause some wear and tear which I believe that the testers/solvers should have all the resources they should need to have the ideal testing conditions. Lastly, the money will be used to supply the games and or convention entry for new upcoming games for the latest information to contribute to the application. The data will be received by sending back all the supplies biweekly to continuously update the application.

The question we would ask for the user is to correctly collect the data and please in detail explain the significance of the data collected as all we be view in consideration for

the improvement of the application. I will also ask weekly what progress has been made towards the app or discovery of new information as it will determine the future steps of the cultural probe in whether we need more testing/puzzle solving, or we need to allocate resources into application development and take a pause on research.

Interviews and Surveys:

For the interviews, we will find people who consider themselves puzzle solvers. We will schedule a time to meet with the interviewees and begin asking questions regarding their approach to solving puzzles and also a general inquiry about the type of puzzles they like to solve. If they like sudoku, we will guide our questions toward that, if they like video game puzzles, like Zelda, we will try to ask questions about that. The questions will focus on how they approach problem-solving and what they like to do when they are stuck on a problem.

The interview will have to be in two parts.The first set of interviews will be preliminary to having a prototype. And the second set of interviews will have a general idea of the UI so we can do a type of A/B testing and see which ideas work better for the user. It would be nice to have the same people for each part of the interviews as well as a new person each time.

The first interviews will be done within the first few weeks we will present our ideas to the users and ask them what they would be more likely to use, and what they respond to better also we will look for feedback on what they want more/less of.

The second interviews will be testing prototypes and will be less about questions and more about observations and how easily the user can navigate through the UI. We will ask questions about what they think the next step is and see how much guidance they need. This is where the A/B testing comes in and we will find out what works better.

Using the information we collected from the set of interviews, we can use the results to help us come up with the ultimate design for the app and make UI decisions.