

1. Idea of the application

HappyPuzzle is a jigsaw puzzle game geared mainly for children. User can move the puzzle pieces by dragging and dropping them. Our goal was to create a simple to use and entertaining user experience. UI is designed to be very visual, with happy colors and lot of graphics, to make it appealing for younger audiences.

Our idea was that dragging and dropping is an intuitive choice for a jigsaw puzzle game. Especially children might find this method to be most natural. We decided to use [DragDropLayouts](#) add-on to simplify the task of moving the pieces. Its DDGridLayout turned out to be a great choice for the grid in the puzzle.

There are four different puzzle pictures in the game. All of them are public domain pictures, from [Wikimedia Commons](#). Pictures are selected to be appealing to all audiences, visually appealing and challenging enough to solve. All other graphics have been created with Gimp 2.8. The font used in some of the pictures is [Amsterdam graffiti](#), which is free for non-commercial use.

When solving a puzzle, user sees how many pieces are in a correct position. This is always zero, when a new game starts. This information allows user to track his/her progress. Game also tracks how many moves the player has spent. User score is equal to the moves the user spent after all the pieces are in correct positions.

If the score is good enough, user might make it to the top ten players of that puzzle, since there is a high score list for each of the four puzzles. Accordion was a useful and visually appealing choice for presenting these lists to a user.

SQLite stores the database as a file, which is suitable for this project, since only a very small database is required for our purposes.

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2. Division of work

As a two person team, we decided to program pretty much everything together. This worked very well for us. Our sessions were often long and fun, but also very productive. After the sessions we often divided some smaller tasks to be done individually.

So although we did almost everything together, the only slight division of work was that Rauno focused more on UI and graphics and Juhani more on database and high score list.