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Game Development and Visualization – Mini project 1: 2D Games

Report

I.   Idea:

I like adventures. When I was in primary school, I was curious about discovering the world, especially the ancient Egypt. I spent many days to read books about the ancient Egypt and mummies. There are rumors about mysteries. Watching people decoded hieroglyphs make me interesting. It is like solving puzzles. I also like playing games. So, I decided to make a puzzle game called "The Ancient Egyptian Treasure".


II.   Features:

- Main menu.
- There are 15 levels. Each level has a mummy and walls. Completing all levels to win the game.
- To move the explorer, uses arrow keys or clicks on arrow button on the screen. To pass a turn (not moving while the mummy moves normally), uses the space key or clicks on the "PASS TURN" button on the screen.
- Some levels have traps and keys to open or close their corresponding gates. Stepping on the key to activate its corresponding gate. The gate can be triggered by either you or the mummy.
- The mummy can move twice as fast as the explorer. It can also step on a trap without harm.

- The explorer moves first, then the mummy moves.
- The explorer needs to find a way to the exit of each maze without being caught by the mummy or stepping on a trap.
- Undo move: takes back the last action.
- Reset maze: play a level from the beginning.
- There is a map on the top right of the screen to show your current level.
- On the top right of the map is an Ankh which shows the status of the explorer. If it is yellow, the explorer is still alive. But if it turns grey, that means the explorer was caught by the mummy or stepped on a trap. This means you lost, and you need to undo a move or reset the maze.
- Tutorial.
- Story.
- Author.
- Reset data: plays the game from level 1.
- Quit game.
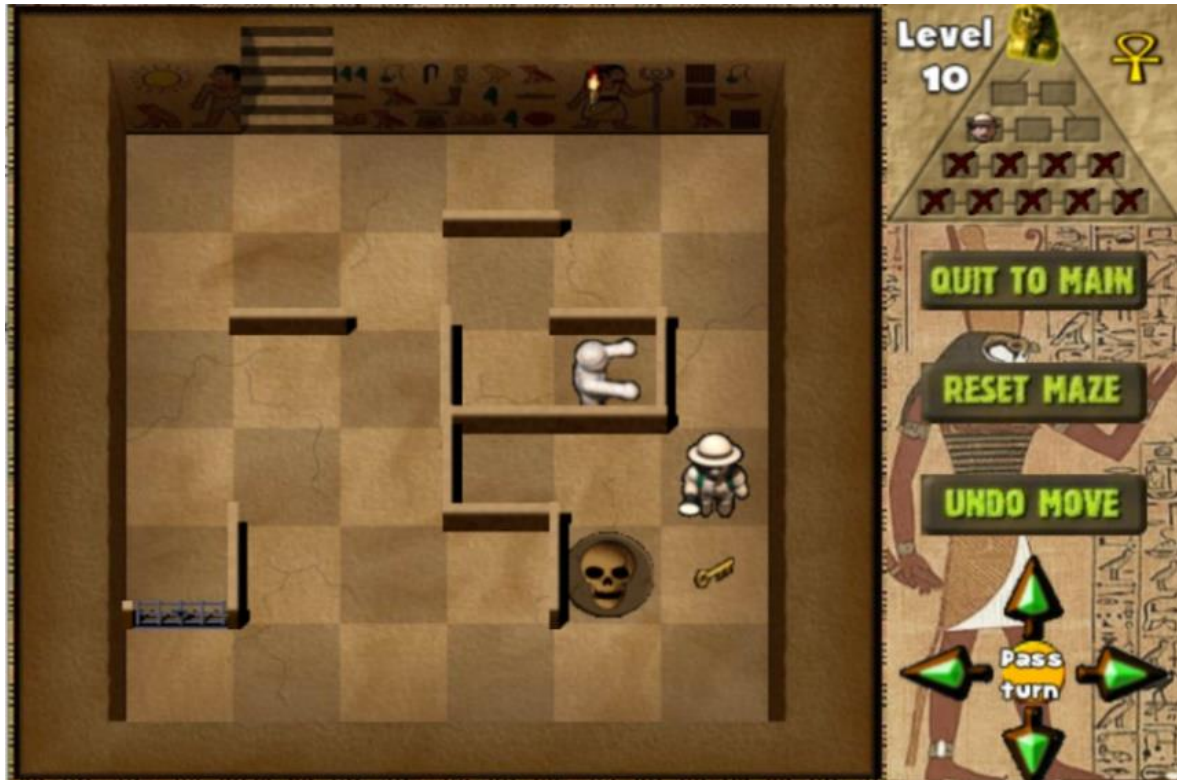
III. Techniques:
- 2D sprites.
- Animations.
- Graphical user interface.
- Background music, sound effects.
- Interactive menu.
- Responsive design.
- Manipulation of keyboard and buttons on the screen.
- AI for the mummy.
- Object-oriented programming.

IV. Tutorial:
In the README.md file.

V. Resources references:
The resources are mostly from the game Mummy Maze of PopCap Games.
Control board: http://1.bp.blogspot.com/-zZ0oglxFQn4/TpqdTgGWaQI/AAAAAAAACjw/y1Piucm5mus/s1600/cusrive_sample.jpg
I used Microsoft Paint and Microsoft PowerPoint to edit or create images.
Sounds:
- Menu: https://youtu.be/BvMFs5cjnfA
- In game: https://youtu.be/WNak3YgT86A
- Complete a level: https://youtu.be/cK3uKFLoLH0
- Win the game: https://youtu.be/nuLOsjNebzE, https://youtu.be/6LGyxi7oB98