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| Project Design Document | |  | | --- | | *07/07/2022*  Harika Takkellapati | |

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| Project Concept | | | |
| 1 **Player Control** |  | You control a   |  | | --- | | *Number Box* | | in this   |  |  | | --- | --- | | *Sliding the number boxes* | game | |
|  | where   |  | | --- | | *Arrow keys, mouse click* | | makes the player   |  | | --- | | *The boxes move up, down and side* | |

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| 2 **Basic**  **Gameplay** |  | During the game,   |  |  | | --- | --- | | *Reset option, extra moves, change game level* | appear | | from   |  | | --- | | *Center of the screen* | |
|  | and the goal of the game is to   |  | | --- | | *Slide the number boxes and arrange the numbers in ascending order* | | |

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| 3 **Sound**  **& Effects** |  | There will be sound effects   |  | | --- | | *when you click on a box, move a box and at game end* | | and particle effects   |  | | --- | | *when the player wins a game* | |
|  | [*optional*] There will also be   |  | | --- | | *Background sound for the game* | | |

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| 4 **Gameplay**  **Mechanics** |  | As the game progresses,   |  | | --- | | *The level will move up* | | making it   |  | | --- | | *hard levels* | |
|  | [*optional*] There will also be   |  | | --- | | *hard levels will have less moves and more number boxes.* | | |

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| 5 **User**  **Interface** |  | The   |  | | --- | | *Puzzle* | | will   |  | | --- | | *Move to next level* | | whenever   |  | | --- | | *You complete the present level* | |
|  | At the start of the game, the title   |  |  | | --- | --- | | *Sliding Puzzle*  *Play Now* | will appear | | | and the game will end when   |  | | --- | | *you reset the game or complete the game* | |

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| 6 **Other Features** |  | |  | | --- | | *Sliding puzzles can be incredibly difficult to solve, as anyone who's tried can tell you. Mathematicians categorize sliders as PSPACE-complete, which is a measure of their mathematical complexity. Essentially, it means that even computers find it hard to come up with a solution* | |

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# Project Timeline

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| --- | --- | --- |
| Milestone | Description | Due |
| **#1** | |  | | --- | | * *Design Document first draft* | | |  | | --- | | *06/28* | |
| **#2** | |  | | --- | | * *Design Document Revision and Project Overview*   *Video* | | |  | | --- | | *07/05* | |
| **#3** | |  | | --- | | * *Progress Update* | | |  | | --- | | *07/15* | |
| **#4** | |  | | --- | | * *Final Project* | | |  | | --- | | *07/26* | |

# Project Sketch

