**Chess with Mom**

By Tristan Miller

# Functional Requirements

## Use Cases

### User Authentication

|  |  |
| --- | --- |
| Actors | User, Admin |
| Description | The user (mom) or the son (admin) logs in using a phone number |
| Steps | Enter phone number  Receive pass key via SMS  Enter pass key to authenticate  (Session is tokenized for 1 week) |
| Admin Functions | * Manage allowed phone numbers * Reset login sessions |

### Play Chess

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| --- | --- |
| Actors | User, Admin |
| Description | Play a live game of chess against each other |
| Steps | Login  One user sends a game request  Other user accepts the game request  Move pieces on a virtual board  End the game with checkmate, draw, or resignation |
| Admin Functions | * Undo moves |

### Solve Chess Puzzles

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| --- | --- |
| Actors | User |
| Description | Play a chess puzzle from a predefined position |
| Steps | Login  Select ‘Puzzles’ button from sidebar  Random puzzle is generated  Take the correct sequence of moves to solve the puzzle  Receive feedback on success or failure |
| Admin Functions | * None |

### Create Chess Puzzles

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| --- | --- |
| Actors | Admin |
| Description | Add new puzzles to the existing database |
| Steps | Login as admin  Select ‘Puzzles’ button from the sidebar  Select ‘Create’ button (available to admin only)  Configure the starting position of the puzzle  Configure the correct move sequence to successfully complete the puzzle |
| Admin Functions | * Create, Delete, Update puzzles |

### Review Past Games

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| --- | --- |
| Actors | User, Admin |
| Description | Access and analyze previous games played |
| Steps | Login  Select ‘Review’ button from the sidebar  Select a game from the list  Toggle through the moves played |
| Admin Functions | * Delete games from history |

### Game Management

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| --- | --- |
| Actors | Admin |
| Description | Manage active or past games |
| Steps | Login as admin  End an active game  Select ‘Review’ button from the sidebar  Delete past games |
| Admin Functions | * Terminate malfunctioning sessions * Remove games from history |

### System Logging

|  |  |
| --- | --- |
| Actors | Admin |
| Description | Access logs for debugging |
| Steps | Login to AWS  Navigate to CloudWatch service  Review authentication logs  Review game and puzzle activity logs |
| Admin Functions | * Check for malicious login attempts * Review logs for debugging |