

## **OOP Project - Change Log**

### **Animal Chess**

- I. Adding game draw scenario.
  - Initially, a tie game occurs when both players run out of animals. Now, we have decided that this tie-game condition is the case when both players have only one animal left.
- II. Add more files.
  - In the final version, we add one more file called Board.cpp to implement functions in the struct Board.
  - Some text and music files are added to insert sound effects and messages into the game.
- III. Classes.
  - GameProperty:
    - Private variable 'ChessPiece pieces[63]' is added to define 63 containers corresponding to 63 squares on the board.
    - Private variable 'int reason' is added to help print the explanation when the game ends.
    - Private variable 'string winner' is added to help decide winner of the game.
    - Public static variable 'bool showWrongMove' is added to help printing the warning when players choose wrong moves.
    - Public static variable 'Music sounds[6]' is added to store music and sound effects of the game.
    - Public function 'checkWinner' is modified to not require any input variable.
    - Public function 'warning' is renamed to be 'wrongMoveMessage' and modified to not requiring any input variable.
    - Public function 'void showWinner()' is added to print out winner when the game ends.
    - Public function 'void helpWindow()' is added to launch help window if a player presses 'H' key while playing.
    - Public function 'void callNewGame()' is added to start new game.
  - Character:
    - Public variable "string color" is changed to be private. Consequently, public getter and setter for this private variable are added.
    - Public getter and setter for private variable 'string name' are changed to be non-virtual.
  - GameIntro:

- Public static variable 'bool showInstruction' and function 'void openRuleWindow(Font font)' are added to help showing instruction in the main menu.
- Public static function 'void finalMessage()' is added to print messages when the game closes.
- Public static function 'void playIntroMusic()' is added to play music when the game intro pops up.
- Public static variable 'const char\* imageFile[8]' is added to provide file paths to all images in the game.
- GameMove:
  - Public variable 'bool disappear' is added to help delete characters when a soldier or a fortress is captured.
  - Public static functions 'void saveTurn()', 'void loadTurn()', 'void resetTurn()' are added to implement saving process.
- IV. Structs.
  - Variable "int index" is changed to static to create saving function of the game.
  - Static functions 'void loadIndex()', 'void saveIndex()', 'void makeNewBoard()', 'bool checkEmpty()', 'void clearIndex()' are added to launch the saving process.
- V. Help button.
  - The game is designed to include "Help" button which is accessible anytime time while the game is running. Players can access this help menu by pressing H button.
  - In this menu, players can save the game and quit to main menu, open the instruction window, quit & save or quit the game without saving.