Readme file - CodeNames Project

Codenames is a word-based party game where players split into two teams, each with a "spymaster" and several "guessers." The spymasters give one-word clues related to multiple words on a grid, aiming to guide their teammates to guess the words associated with their team while avoiding words linked to the opposing team and the deadly black word. The first team to guess all their words correctly wins the game.

Upon starting, the main menu presents two options: Load XML File or exit the system. Once an XML file is loaded, the menu expands with additional options: View file details and start a new game. If a game is in progress, you can: Take your turn in the ongoing game or View the active game details. The user chooses an option by entering the corresponding number when prompted. The menu dynamically updates to reflect the current state of the game, offering relevant options based on whether a game is active or an XML file is loaded.

The system is divided into two Java modules: engine and UI. The engine module is responsible for the game's entire logic, including storing the board data, managing team scores, analyzing guesses, and providing the correct responses to the UI module. The UI module includes functionalities for player interaction, such as displaying the game interface, collecting input from players, sending this input to the engine, and displaying the engine's responses. Additionally, the UI manages the game's flow and handles the menu.

Essensial classes:

* Main.java: The entry point of the application.
* GameUI.java: Manages the user interface for the game, displaying options to the user.
* Engine.java: Serves as the interface between the UI and the game engine. It includes methods for reading game data, processing guesses, and managing team information.
* EngineImpl.java: Implements the core game engine logic.
* Game.java: stores the entire active game data.
* Validators.java: Provides utility methods for validating game-related data and inputs.
* GameDataLoader.java: Handles loading game data from external sources, such as XML files.
* TurnManager.java: Manages the turns between teams.

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