



Admin Class:

- **Responsibilities:**
 - Manages game data, including loading and saving from/to a JSON file.
 - Authenticates users based on their roles (admin or scorer).
 - Provides a menu for game configuration and displays game settings.
- **Methods:**
 - `__init__()`: Initializes the Admin object and loads game data.
 - `load_game_data()`: Reads game data from a JSON file.
 - `save_game_data(data)`: Saves game data to a JSON file.
 - `authenticate_user(role_required)`: Authenticates users based on their role.
 - `show_menu()`: Displays the main menu for game selection.
 - `display_game_settings(game)`: Shows settings for a selected game.
 - `admin_menu()`: Manages the admin's interaction with the game configuration.

BadmintonGame Class:

- **Responsibilities:**
 - Handles the scoring and winning logic for a badminton game.
 - Allows players to score points and determines the winner based on the rules.
- **Methods:**
 - `__init__(points_to_win, golden_point)`: Initializes the game with points to win and golden point values.
 - `show_badminton_scoring_options()`: Displays scoring options for the game.
 - `check_winner()`: Checks if there is a winner based on the current score and rules.
 - `play()`: Runs the badminton game, allowing players to score and determining the winner.

TableTennis Class:

- **Responsibilities:**
 - Manages the scoring and winning logic for a table tennis game.
 - Handles point scoring and determines the winner based on the rules.
- **Methods:**
 - `__init__(points_to_win, golden_point)`: Initializes the game with points to win and golden point values.
 - `show_scoring_options()`: Displays scoring options for the game.
 - `check_winner()`: Checks if there is a winner based on the current score and rules.
 - `play()`: Runs the table tennis game, allowing players to score and determining the winner.

LawnTennis Class:

- **Responsibilities:**
 - Manages the scoring and set-winning logic for a lawn tennis game.
 - Handles point scoring, set wins, and displays the final score.
- **Methods:**
 - `__init__(golden_point)`: Initializes the game with golden point values.
 - `print_scores()`: Prints the current scores using tennis scoring terminology.
 - `check_set_winner()`: Checks if there is a winner for the current set based on the scores.
 - `play()`: Runs the lawn tennis game, allowing players to score and determining the set winners.

Main Function:

- **Responsibilities:**
 - Manages the overall flow of the application.
 - Authenticates the admin and scorer, configures game settings, and starts the selected game.
- **Steps:**
 - Initializes the Admin object and authenticates the admin.
 - Configures the game settings through the Admin object.
 - Authenticates the scorer.
 - Creates the appropriate game instance based on the admin's configuration.
 - Starts the selected game and manages its flow.