Advanced Movie Rating System using ES6 Classes & OOP Principles

1. Abstraction: The Movie Class

- **Objective**: Define a class `Movie` that encapsulates movie details and ratings, providing methods for interaction and information display.

- **Implementation**:

  - **Properties**:
    - Keep `title`, `releaseYear`, and `genre` private. Use getters and setters for `title`, `releaseYear`, and `genre` to ensure validation and encapsulation.
      - Make sure that `title` length is greater than 1 and less than 100 characters. Log to console errors if the value is invalid.
      - Make sure that the `releaseYear` is greater than 1900 and less than the current year. Log to console errors if the value is invalid.
      - Add an appropriate validation to the `genre` property.
    - Also keep `#ratings` as a private property to store movie ratings.
  - **Methods**:
    - `addRating(rating: Number)`: Adds a rating between 1 and 5 to the `#ratings` array, ensuring input validation. If the rating is out of range, log an error message.
    - `getAverageRating()`: Calculates and returns the average rating from the `#ratings` array.
    - `displayDetails()`: Logs movie details including title, release year, and genre.
    - `typeOfMovie()`: Returns "This is a standard movie."

2. Inheritance: Extending Movie

- **Series Class**:

  - Inherits `Movie` properties.

- Adds `numberOfEpisodes` property with appropriate getters and setters.
- Create a getter for the `numberOfEpisodes` property.
- Create a setter for the `numberOfEpisodes` property that validates if the value is a number and is greater than 0. Log an error to console if the value is invalid.
- Overrides `displayDetails()` to include number of episodes and `typeOfMovie()` to return "This is a series."

- **Documentary Class**:

  - Inherits `Movie` properties.
  - Adds `topic` property with relevant getters and setters.
  - Create a getter for the `topic` property.
  - Create a setter for the `topic` property that validates if the value's length is greater than 1 and is less than 50. Log an error to console if the value is invalid.
    - Overrides `displayDetails()` to include the topic and `typeOfMovie()` to return "This is a documentary."

Tasks:

Test the system by creating and testing instances of movies, series, and documentaries.

Bonus: The StreamingPlatform Class

- **Objective**: Create a `StreamingPlatform` class to manage a collection of movies, series and documentaries, offering functionality to add media, search by title, and calculate the overall average rating.

- **Implementation**:

  - **Properties**:
    - `media` : An array to store `Movie` instances.
  - **Methods**:
    - `addMedia(media: Movie)` : Adds a movie to the `media` array after validating it's an instance of `Movie` .
    - `findMediaByTitle(title: String)` : Returns a media with the matching title.

- `overallAverageRating()` : Calculates and returns the average rating of all media.

Note: Focus on code clarity, utilize comments for explanation, and ensure to refactor repetitive code segments to maintain clean and efficient code structure.