LaunchPad Dev Code Challenge

As with most code challenges, your understanding of more sophisticated language techniques, project structure, and best practices will be evaluated along with your ability to complete as much of the challenge as possible. Please try to clarify any questions ahead of time.

Intro

In this challenge you need to create a .NET 5.0 Web API that provides endpoints for managing games of Tic-Tac-Toe. These endpoints are to take the described inputs as JSON strings and return the described output. The API application needs to be runnable using Docker and Docker Compose. Use the most appropriate verbs for the endpoints. Game data should be managed using Entity Framework and a database of your choice (an in-memory database is fine).

Your code should be committed to a public GIT repository (Any major GIT provider is fine) using the best practices for managing feature branches with a tag created for each feature when it is completed. Leave all feature branches in your repository. Please document how to get your system running on a development computer and provide documentation for your endpoints in a Readme.md file at the root of your repository.

When complete, let your LaunchPad contact know what the URL of your GIT repository is.

Endpoint 1

Add an endpoint for starting a game. This endpoint should return a game Id and Ids for the two players.

Endpoint 2

Add an endpoint for registering a player move. This endpoint should take the player Id and return a success response or appropriate errors. It should also notify the caller if the current move wins the game.

Endpoint 3

Add an endpoint for retrieving a list of currently running games including the number of moves registered for each and the names of the players.

Final Question

For the following question, add the answer to your GIT repository's Readme.md file.

Question: What is the appropriate OAuth 2/OIDC grant to use for a web application using a SPA (Single Page Application) and why.