REPORT ID: 3a4c3c06-d065-40bb-a9c8-b5a39bfc2bdf
TECHNICAL TEST: Challenge 005 - Mastermind
REQUESTED BY: Development team
CONFIDENTIALITY LEVEL: Individual

Introduction

Mastermind is a code-breaking game for two players. One player becomes the *codemaker*, the other the *codebreaker*. The codemaker chooses a pattern of four color code pegs (duplicates allowed) and the *codebreaker* tries to guess it, in both order and color. Each guess is made by placing a row of color code pegs on the decoding board. Once placed, the *codemaker* provides feedback by placing from zero to four key pegs in the small holes of the row with the guess. A black key peg is placed for each code peg from the guess which is correct in both color and position. A white key peg indicates the existence of a correct color code peg placed in the wrong position.

Example: Given a code `[RED, BLUE, GREEN, RED]` *when the codebreaker gives a code with* `[RED, GREEN, RED, YELLOW]` *the feedback will be:* `[BLACK, WHITE, WHITE, NOTHING]`

Objective

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We want a Rest API that simulates the role of the Masterminds codemaker, its main features are:

- Create game
- Return feedback given a code guess
- Guessing codes history (optional)
- Select code length when creating a game (optional)

Definition

- Endpoints definitions here
- Colors available: red, yellow, orange, blue, pink, green
- Default code length: 4

Evaluation

Once finished, we'll evaluate:

- If the game works as expected
- The presence (and implementation) of tests
- The code standards used
- The architecture used
- The handling of unexpected use cases

Project requirements

- The code should be production ready
- Use github for control version
- The code must be in python
- This project should take between 6-8h

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