Hi-Lo Game

WASA: Web and Software Architecture

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Let's play a game

Hi-Lo Game

- I think a secret number between 1 and 100
- You try to guess it in max 10 trials
- Each trial, I will tell you if your guess is too high, or too low

Hi-Lo Game Service Requirements

1. start a new game
2. accept a guess (up to 10 guesses), and return hi, lo, or correct
3. reset a game, generating a new secret number
4. obtain the list of each guess in a game, with related results
5. obtain the list of all games, with final result (win/lose) and number of guesses

Which resources would you design?

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3

Design the service

- design a /games resource that is a collection of games
- each game can be designed as a resource itself: /games/{id}
- we can use the collection for the requirements 1 and 5
- we can use the single game resource for the requirements 2, 3, and 4

Let's create the OpenAPI document

We use the Swagger
Editor to create,
validate and test the
OpenAPI Document
https:
//editor.swagger.io
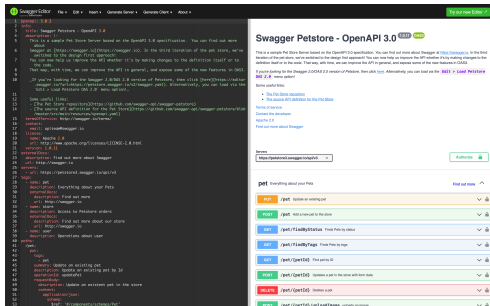
Let's design the two endpoints ("paths")

```yaml
openapi: 3.0.0
info:
  title: Hi-Lo Game
  description: |
    This API allows playing hi-lo game
    and requesting the state of a game or the history
    of all the games
  version: 0.0.1
paths:
  /games:
  # ...
  /games/{id}:
  # ...
```

```yaml
version: 0.0.1
paths:
  /games:
    post:
      summary: start a new game
      description: |
        Start a new game generating the secret number
        and return the created game id
      responses:
        "200":
          description: new game created
          content:
            application/json:
              schema:
                type: integer
    get:
```

The schema object defines a primitive (integer, string, …), array, or object data type, depending on its type field

Swagger description - post

POST **/games** start a new game

Start a new game generating the secret number and return the created game id

Parameters

[Try it out]

No parameters

Responses

Code	Description	Links
200	new game created	*No links*

Media type

[application/json ▾]

Controls Accept header.

Example Value | Schema

```
0
```