

# Hi-Lo Game

WASA: Web and Software Architecture

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## 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

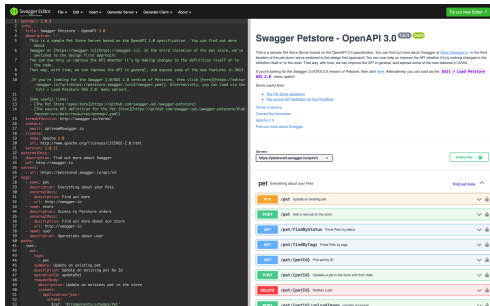
Which resources would you design?

- 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

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We use the Swagger Editor to create, validate and test the OpenAPI Document  
<https://editor.swagger.io>



## Let's design the two endpoints ("paths")

```
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}:
    # ...
```

## Let's specify the methods for the `/games/` path

```
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	<p>new game created</p> <p>Media type</p> <p><input type="text" value="application/json"/></p> <p>Controls Accept: header</p> <p><b>Example Value</b>   Schema</p> <pre>0</pre>	<i>No links</i>