UNIVERSITATEA DIN BUCUREȘTI

VIRTUTE ET SAPIENTIA

WEB TECHNOLOGIES USING JAVA

COURSE 6 – REST WEBSERVICES

AGENDA

- REQUEST PARAMS
- REQUEST BODY
- RESPONSE
- HEADERS

REQUEST PARAMS

- Path param - @PathVariable
  - path variables may be substituted with identity-based values:
    - GET / leagues/{leagueId}/teams/{teamId}/players/{playerId}
- Query param - @RequestParam
  - is an URI's optional query
  - comes after the path
  - can provide clients with additional interaction capabilities (searching, pagination or filtering)
    - GET /users?role=admin
    - GET /users?pageSize=25&pageStartIndex=50
  - for complex searching / filtering, consider designing
    - a special resource such as *search:* POST /users/search
    - a GET request with a body

REQUEST PARAMS

- any required parameters should be put in the path, and any optional parameters should be query string parameters
- optional parameters in the path cause unexpected results when trying to write URL handlers that match different combinations

REQUEST BODY

- @RequestBody
- Usually mapped to JSON
- Usually used for POST, PUT, PATCH
- Possible to use it with a GET, less used

RESPONSE

- ResponseEntity: used when extra information is needed on the response, apart from the possible retrieved entity
- HTTP status codes
- HTTP headers

HEADERS

- Various forms of metadata may be conveyed through the entity headers for the HTTP request and HTTP response (@RequestHeader for requests)
- HTTP standard headers:
  - Content-Type:
    - the type of data found within a request or response message's body
    - media type: application, audio, image, message, model, multipart, text, or video
    - commonly used: text/html, image/jpeg, application/xml, application/json
  - ETag: identifies a specific "version" of the resource. Usually sent in response to GET requests
  - If-Match: identifies a specific "version" of the resource. Usually sent in request for PUT or PATCH
  - Location: the URI of a newly created resource. Usually sent in response to the successful creation of a resource
  - Accept: the type of data found within a request
- Custom headers

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- REST API Design Rulebook, by Mark Masse
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Q&A

THANK YOU

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