**Assessment: Java Engineer**

You are starting a brand-new casino back-end system for a casino start-up. Normally you would need proper infrastructure in place, but the new CEO, Michael Scott, mentioned something about 'proof of concept' and this being a sort of 'assessment' and is only giving you very limited time. With this limited time there are only a select few crucial features this system should be capable of. A games provider, Dagacube, graciously offered to host a single slot game to get the casino started and have given some basic requirements on what the system should be capable of to host this slot game.

Dagacube's requirements:   
They supplied an API specification with all the required functionality for casino slot games to function and be integrated with the casino.   
Beyond the API specification, they warned that you should look into how the system will behave transaction wise if you receive several transactions within a short amount of time from each other for the same player, and that the balance updates correctly.

The Casino's requirements:

* The system needs to make use of Java and Spring Boot.
* Pam from customer support wants to be able to get the last ten wager/win transactions the player made on the slot game to better provide support.

The CEO's requirements:  
Michael approached you afterwards and mentioned that the system doesn't have to be all that fancy.

* He requested that you use a H2 database.
* He also read up on some spring boot documents and mentioned to save time you only need to use one controller and service and promises he'll give you time afterwards to fix the inevitable tech   
  debt.

API Specification

* Base Path: /casino

Get Balance

* GET /player/{playerId}/balance
* Invalid playerId should be seen as a bad request (HTTP 400)   
     
  Request   
    
  Parameter Location Value Description   
  playerId path integer The player’s id   
     
  Response   
     
  Parameter Value Description   
  playerId integer The player’s id   
  balance currency The current balance   
  of the player

Update Balance

* POST /player/{playerid}/balance/update
* Invalid playerId should be seen as a bad request (HTTP 400)
* Negative amounts should be seen as a bad request (HTTP 400)
* Wager greater than current balance should be seen as a Teapot (HTTP 418)   
     
  Request   
     
  **Parameter Location Value Description**   
  **playerId** path integer The player’s id   
  **amount** body currency (positive value) The financial value of the transaction that is taking place

**transactionType** body static: WAGER WIN States whether the update should be seen as a wager or a win

Response

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Value** | **Description** |
| **transactionId** | big integer | The id of the transaction that took place |
| **balance** | currency | The player’s current balance |

Last 10 Transactions

* POST /admin/player/transactions
* Invalid username should be seen as a bad request (HTTP 400)

Request

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Location** | **Value** | **Description** |
| **username** | body | varchar, 50 length | The player’s username for who the last ten transactions must be retrieved |

Response

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Location** | **Value** | **Description** |
| **<Transactions array>** | Root of body | - | The array in which the transactions must reside |
| **transactionType** | Transactions array (in transaction object) | static:  WAGER WIN | States whether the transaction was of type wager or win |
| **transactionId** | Transactions array (in transaction object) | big integer | The id of the transaction that took place |
| **amount** | Transactions array (in transaction object) | currency | The financial value of the transaction |