TECHNICAL TESTS

Video Rental Store

(A real test from "CASUMO")

- For a video rental store we want to create a system for managing the rental administration. We want three primary functions.

   1. Have an inventory of films

   2. Calculate the price for rentals

   3. Keep track of the customers "bonus" points

Price

The price of rentals is based type of film rented and how many days the film is rented for. The customers say when renting for how many days they want to rent for and pay up front. If the film is returned late, then rent for the extra days is charged when returning.

The store has three types of films.

  1. New releases – Price is <premium price> times number of days rented.

  2. Regular films – Price is <basic price> for the first 3 days and then <basic price>
     times the number of days over 3.

  3. Old film - Price is <basic price> for the first 5 days and then <basic price> times
     the number of days over 5

<premium price> is 40 USD <basic price> is 30 USD

The program should expose a rest-ish HTTP API. (hint; unless you have any personal preferences, http://www.dropwizard.io is a really simple way of getting that)

The API should (at least) expose operations for

- Renting one or several films and calculating the price.

- Returning films and calculating possible surcharges.

Examples of price calculations

Matrix 11 (New release) 1 days 40 USD

Spider Man (Regular rental) 5 days 90 USD

Spider Man 2 (Regular rental) 2 days 30 USD

Out of Africa (Old film) 7 days 90 USD

Total price: 250 USD

When returning films late
Matrix 11 (New release) 2 extra days 80 USD

Spider Man (Regular rental) 1 days 30 USD

Total late charge: 110 USD

Good Luck!