

# Exercises - Session 30



In case you get stuck anywhere, don't be afraid to ask the coaches! They are here to help and will gladly explain everything to you! Take notes during the exercises. Even if you never look at them again, they will help you memorise things!

Please quickly read through the documentation, as they will help you solving the following tasks:

<https://github.com/jeremyevans/sequel>

[http://sequel.jeremyevans.net/rdoc/files/doc/cheat\\_sheet\\_rdoc.html](http://sequel.jeremyevans.net/rdoc/files/doc/cheat_sheet_rdoc.html)

<http://sequel.jeremyevans.net/documentation.html>

## Sequel Exercise

1. Checkout/download the prepared application (materials/session30) we are going to work with:  
<https://github.com/rubymonstas-zurich/rubymonstas-zurich.github.io>
2. Try to get an overview of the provided application (materials/session30/app):
  - a. Open and checkout app.rb
  - b. Which gems are used? (Gemfile)
3. I hope you already recognized that the provided app is a Sinatra-Application, something we introduced you some weeks ago (<http://rubymonstas.ch/curriculum>). So spin up the application and have a look at it from a user perspective:
4. You will see, that can you already create new users, but you're not able to create new cities. Go and change that. Use the stuff that is already around for creating new users, duplicate it and adapt to allow creating new cities as well.
5. Add functionalities to delete users and cities.
6. Also start an interactive ruby shell (inside /materials/session30/app) that will allow you to interact with the database using ruby and the sequel gem:

```
ruby app.rb
```

```
irb
```

```
require 'sequel'
```

```
DB = Sequel.sqlite('app.db')
```

- a. Try to display all users on the terminal
- b. Select one specific user and try to jump to his city
- c. Insert a new user through the terminal and double check
- d. Try to insert a new user without city. What happens?

## Advanced

In case you are one of the fast ones and there is still time left, try to solve:

- I. Add a filter functionality to the list of users, that allow the user to insert a firstname he is looking for and filter the list of users accordingly.
  - A. Use a HTML form and an input field from type text to allow the user to insert the firstname he is looking for ([http://www.w3schools.com/tags/tag\\_input.asp](http://www.w3schools.com/tags/tag_input.asp))
  - B. In the '/users' sinatra action, check if params for filtering are around and use Sequels 'where' method to filter the results based on the users input.  
([http://sequel.jeremyevans.net/rdoc/files/doc/dataset\\_filtering\\_rdoc.html](http://sequel.jeremyevans.net/rdoc/files/doc/dataset_filtering_rdoc.html))
- II. In the interactive ruby shell (see 6.), try to select all users, that live in Zürich, by just using the word 'Zürich', don't use any ID, as your users usually also don't know the IDs of your entities. Hint: Use Sequels 'natural\_join' ([http://www.rubydoc.info/gems/sequel/Sequel%2FDataset%3Ajoin\\_table](http://www.rubydoc.info/gems/sequel/Sequel%2FDataset%3Ajoin_table)) in combination with 'where'.