

# Exercises - Session 18



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!

## Rubygems and bundler

In this exercise you will one by one install multiple gems by adding them to your Gemfile and running `bundle install`. After installing the gem, you will use it in your own code for some neat things. You can find information about all the gems on [www.rubygems.org](http://www.rubygems.org). Look their documentation up on the internet and try some of the examples to get a feeling for how they work.

1. Create a new directory for your project. In the directory, create a Gemfile and add the first line: `source 'https://rubygems.org'`. Running `bundle install`, you should see terminal output saying "The Gemfile specifies no dependencies".
2. Add the `highline` gem to your project. You will use it for interacting with the user of your script. Using this gem, ask the user for a start location, and end location and a time, and a speed (in km/h) and save those in string variables. The default for the start location should be "Zürich", the default for the speed should be 100 (km/h) and the default for the time should be "now".
3. Next, add the `geocoder` gem to the project. You will use this gem to calculate the distance between the two locations. Find out how to do that and output the distance in kilometers to the user.
4. Now calculate the time it would take the user to travel the calculated distance in the entered speed.
5. Finally, add the `chronic` gem to your project. This gem can read the time in natural language (for example "1 hour ago") and create a Ruby time object for it. Calculate the time the user would arrive at the entered end location, if she'd travel at the entered speed. Output the information nicely, as shown in the following example:

```
% ruby session18.rb
Start location? |Zürich|
End location?  New York City
Speed? (km/h)  130
Time? |now|    in 5 minutes
If you started at the time in 5 minutes in Zürich and went 130 km/h, you'd arrive in New
York City at 2015-10-21 00:48:36 +0200
```

## Optional Part

1. Some gems use so-called "native extensions". Find out by googling what those are and what they are useful for.