Exercise

This task may be solved in a programming language (e.g. Java, web frameworks, mobile frameworks) and development environment of your choice.

Problem Description

There are 5 instructors in a training organization, whose monthly schedule needs to be visible and changeable via GUI.
First name, last name and birthday of each instructor shall be visible.
The monthly schedule of each instructor can theoretically contain an unlimited number of appointments (events). Every event has a start and end date, an event type and a description.

To start with, every instructor has the following events:
- 1 week off

- 2 seminars at 1 week each

- 1 project week

The events are free to choose but should be different for every instructor. Events may overlap.

Steps for the development task:

1. Please create a data / class model for the data needed for this task. Initialize the data with sample data for instructors and events.

2. Write a function that calculates the overall duration (days) of events of each instructor.

3. Develop a user interface of your own choice where a user can pick an instructor and see all appointments of this instructor. Furthermore, the overall duration of all events should be visible.

4. Please add the option to delete events.

5. Please add the option to insert new events.

6. Please add the option to edit events.

Optional Enhancements

If you have the time, please enhance your program either with own ideas or any selection of the following features:
- Persist the data to a database (e.g. MySQL or Oracle)

- Show team view for multiple instructors at the same time

- If there are conflicts, i.e. if events are overlapping, the user is supposed to see this (when entering/editing). The user is to be notified of conflicts in the list.

- Improve the user friendliness of your GUI, e.g. add a Help-Function

- Extend to any number of months and allow to navigate between months

- Depict the schedules graphically (bar chart / Gantt Chart)

- Build a second client accessing the same data with a different technology (e.g. main GUI as web client, second simpler GUI as desktop client)

- We also welcome your own ideas for enhancements...

Good luck !!!