

**Task 1.**

Read Pages 91-93 (chapter 5.4) of PHP 5 in Practice by Elliot White & J.D. Eisenhamer (available as ebook in UOW library), and write the necessary PHP code for sorting an array of arrays based on the sum of elements in the sub-arrays.

**Task 2.**

- 1) Create a database for a Music Conservatorium offering various classes. The Music Conservatorium has 2 faculties: Instrumental and Ensembles. Each faculty offers several classes. A limited number of students can enrol in each class. Instrumental faculty offers individual classes (one student per class); the Ensembles faculty offers group classes limited to 5 students. Also, each class is run by one music staff (teacher) and each teacher belongs to a single faculty.

*Note:* you can use php script to create the database and tables or you can use phpMyAdmin. If you need to create a script of the database, you can use the phpMyAdmin option 'Export(custom)'. Make sure to check all needed SQL statements for the database and tables.

- 2) Write a php script that will fill the database with 2 records in the faculties, 10 records in the classes, at least 5 records in the music staff, 20 records in the student table, and 10 records in the other tables.

*Note:* Try to use prepared statements for inserting the data.

- 3) Write a php script (with simple interface) that will execute necessary queries to answer the following questions:
  - a) The ID and title of classes (for example, G1 - Guitar individual lesson) offered by a specific faculty (specific faculty means Instrumental or Ensembles);
  - b) The name of the students enrolled in a specific class (select either ID or name of the class);
  - c) The name of the music staff (teachers) in a specific faculty (Instrumental or Ensembles);
  - d) The number of students in each class;
  - e) The number of teachers in each faculty;
  - f) The studentID and name of students who have classes with a specific teacher (select any teacher);
  - g) The number of students who have enrolled in the classes offered by each faculty (note that, for instance, if one student has enrolled in three classes, should be counted three times). Display the results on the web.