MISSION

An Information System to Support Internship Applications

You have been approached by the student self-government to develop an information system that allows to the coordinators to monitor student's experience with the companies.

The students at your university are required do an internship as a part of their studies. While companies are often happy to accept interns, both students and companies often find it difficult to get the right fit. The student self-government wishes to provide a matching service for both students and companies to advertise what they are looking for. At the moment, students can deposit their background information and the companies can do the same. In the future, these information should be available online. Furthermore, both students and companies ought to be able to rate each other.

The coordinators need to be able to monitor the relationship with the companies, making sure that the students are offered valuable experience and are not exploited. For this purpose, they need to be able to get an overview of students' rating of companies in a suitable way to pick up any warning signs. Including the rating of the students by the companies might also be helpful.

Your mission, should you choose to accept it, will be to **create a simple, ideally web-based information system that would enable the coordinators to monitor students' experience with the companies, enabling a differentiated analysis.**

The content must be presented in a structured, visually appealing manner, taking into account any privacy related issues. There must also be clear documentation that explain how and why the project was implemented.

Subtasks and grading:

Mission "prep"		
SQL	Access the provided database that contains existing data and retrieve the data that is relevant for you. Document how and why you used particular queries and what data you got as a result. Note: The data structure is not ideal, as it was created by users with little understanding of databases. There will be redundancies and inefficiencies that you will have to correct when using the data later.	*3*
HTML	Design a general content-webpage that could be used to build further webpages. Furthermore, design first basic CSS that implements a suitable colour scheme for the page.	*3*
XML	Design the structure of an XML document that could carry data necessary for your mission and write a DTD and an XSD for it. Document your structural decisions.	*5*
IR	List and discuss methods that would be suitable to make your webpages easily found by search engines and that can be implemented by the technologies covered in this course	*2*
SW	Discuss the potential that the Semantic Web could have for your project and sketch how a solution could be implemented (very generally).	*2*

Mission "core"		
RDB + SQL	Design and implement a relational database that could be used to manage the data relevant to your task. Suit a RDBMS suitable for this purpose. Document the data model, the relational schema of the database and fill the database with available data.	*10*
HTML + IR	Create a website containing several webpages necessary for your project. Make sure that the webpages follow a suitable consistent design that is implemented in a CSS. Furthermore, take suitable measures to optimise the pages for search engines. Document your decision about the website structure and webpage design.	*10*
HTML + XML	Design and implement a suitable XML structures for the information that is relevant in your project. Describe the structures using DTD and XSD and create necessary XML documents filled with the available data.	*10*
HTML + SW	Find a suitable way to implement semantic structures in your webpages. Document your work.	*10*

Mission "open"	
Using a suitable technology that is related to the course but was not taught as a part of it, implement a solution that would serve to enhance the project. Document your work.	*10*