Learning analytics dashboard

- EIT Digital offers online education, focus on continuous improvement:
  - Multiple platforms: Coursera, Sakai, FutureLearn
  - Scalable methods increase variety of teaching to match needs of teachers and learners
  - Increase quality, decrease effort.

- Learning analytics help:
  - Tracking progress of students,
  - Evaluating teachers methods,
  - Intelligent assistance in communication.

- Dashboard to provide overview & insight:
  - Support teachers, design, quality team, EIT Digital staff, etc.
  - One tool to manage all platforms, although we start first with Coursera.
  - Using a homogenous design across dashboards with different scopes.
Requirements

- Create/delete accounts
- Administration of accounts
- Suggestion: Oauth2

- Report generation
- Dashboard functionality for teachers, quality assurance team, etc.
- Data export
Assignment

1. Create a Web based user interface that
   1. Display data in dashboard for the different roles,
   2. Apply Authentication and Authorization mechanisms
   3. Generate reports out of the results shown in the dashboards.
   4. The solution must integrate with the Data Access API.

2. Parts of previous SEP projects and PDEng assignments can be considered as a suggestion for implementation.

3. Non-functional requirements:
   1. Usability – The tool must integrate easily in the workflow of users.
   2. Maintainability – Understanding the tool and adding new functionality to it must be easy for future developers.
   4. Extensibility – The ability to extend the system with minimal effort and no architectural impact.
   5. Security – The communication across modules must be secure.