



Telemark University College
Faculty of Technology

FMH606 Master's Thesis

Title: Design and Implementation of Laboratory Inventory System

TUC supervisor: Hans-Petter Halvorsen

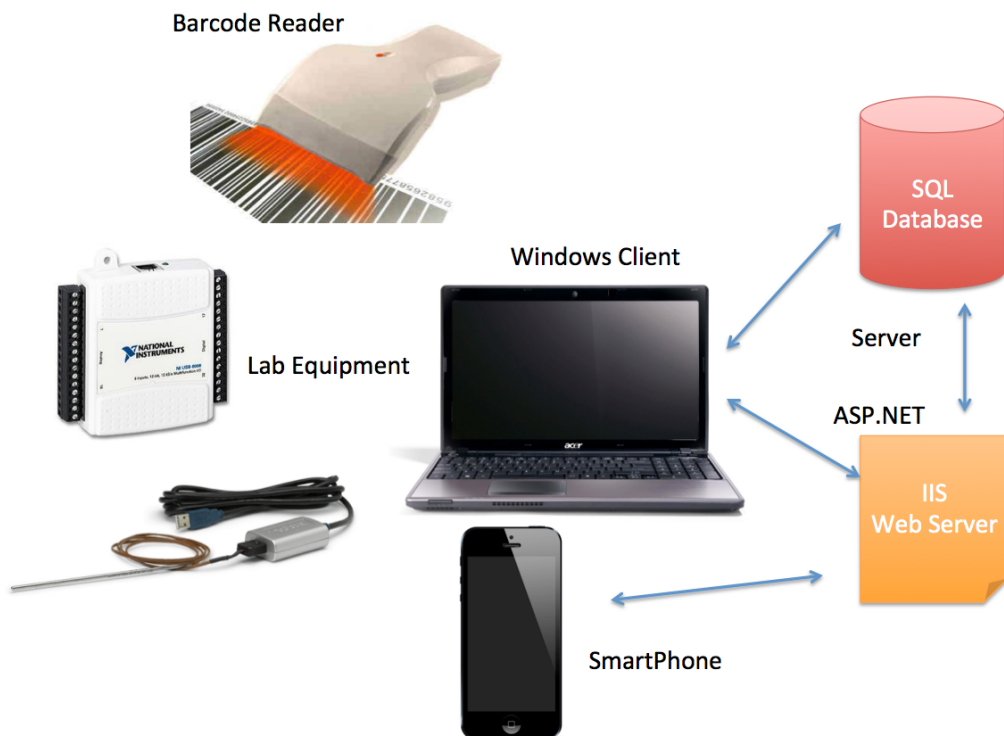
External partner: National Instruments

Task description:

In this project we should design and implement a system for handling all the laboratory equipment available at Telemark University College, Faculty of Technology.

Keywords: Laboratory Equipment, Web Programming (ASP.NET), Database Systems (SQL Server), Smartphone App.

Below we see an overview of such as system:





The following topics should be investigated in this project:

- Design a System for handling and management of Laboratory Equipment
- Design a Database for such a system. Implement the Database using SQL Server. The database should include tables for storing information about the different lab equipment, handling reservations and loans, etc.
- Design and Implement a Barcode Reader Application that shall be used to keep track of the Laboratory Equipment
- Implement a Label Writer for printing out barcode labels that can be attached to the different equipment.
- Create a Web Application (ASP.NET) for Management of the Inventory.
- Design and Implement a Smartphone App for easy Management of the Lab Equipment. The App should be able to read Barcodes for easy check-in and check-out of the Laboratory Equipment
- Delivery of written report following guidelines from the Faculty.

Task background:

TUC/TF has lots of expensive laboratory equipment that are used in different laboratory work and project. The equipment is used by the staff and the students.

Student category: SCE students

Practical arrangements:

Signatures:

Supervisor (date and signature):

Students (date and signature):