OULU UNIVERSITY OF APPLIED SCIENCES

# PROJECT BANKSIMUL

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## Introduction

The goal of Project BankSimul was to create a simulation of an ATM. This was to be achieved by object-oriented manner of approach.


FIGURE 1. *PIN input user interface*

## Objectives

The objective of creating a functional demo version of a cash machine was to be accomplished by utilizing the methods of object-oriented software design. Each member would have a component of their own to develop which together would make a fully functioning system. The individual components were also supposed to be universal, in the sense that they could be reused by different software.

In addition to the simulations of various basic cash machine features, the system was to also have the functionality to read a RFID card, receive a PIN code by touch input and interract with an online database.

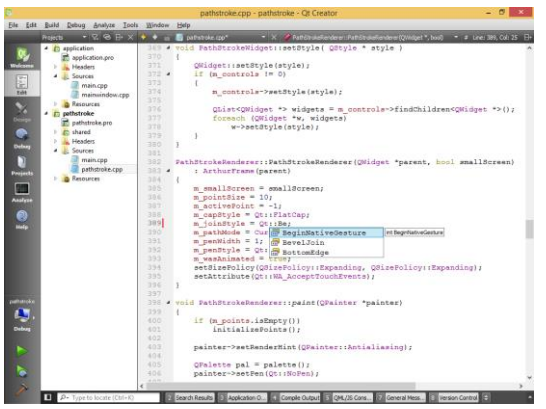

FIGURE 2. *Qt Creator IDE*

## Methods

Qt was the application framework used to develop the BankSimul system. The software consists of an executable file and 3 DLL components: RFID reader, PIN input interface and database interactor. The software is ran on a PC connected to a RFID reader module and a touch screen. The PC is connected to a local area network in order to connect to the database the bank information is stored in.

## Results

The system succesfully simulates an ATM as was the goal. The RFID and PIN components provide the secure login to the system and the database component retrieves and updates bank information data. The executable itself offers an user friendly and reliable user interface with the essential ATM features.

FIGURE 3. *RFID reader module*

## Conclusions

The project definitely taught the project team the procedures of object-oriented analysis and design through practice. Along with the bank simulation as an end product there are the versatile and re-useable components that can be used in future projects as well. It was a rewarding project which was all about close co-operation that resulted in achieving the objective.

Project

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