Vidzemes University of Applied Sciences

**Faculty of Engineering**

cybersecurity requirements engineering

project work assignment

“FIRST Assignment”

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# Introduction

**Goal and briefly about the system**.

Example: The goal of this assignment is to analyze cybersecurity requirements of the software “Processing Center”. This systems consists of several parts or modules which can work on one server or several through network. This document was created in order to identify security vulnerabilities and provide preventive actions. This system has created not only for cloud environment, but it can works in Kubernets with virtual servers infrastructure. The system has two main parts: **cloud environment** which has a DB instance of processing center, a web-server with 2 web-applications and ActiveMQ broker. **Local environment** also has DB instance, in this case, for cardissue system and works on standalone server, a web-server which has webAPI to work with internal request, for example a request to print new payment card’s pool. This systems can work with external request from mobile and web banking application. To handle all request fast and correct, there is an ActiveMQ broker which works with client’s requests. It is a simple non-commercial example without any additional components, I mean load balansers, firewalls, route networks, etc. More information below on diagram.

**Remember that this assignment should not include trade secrets**

# Chapter (example “System decomposition”)

See the document “SystemDecomposition.tm7”

In general environment of the system consist of 4 main parts: external web application, external mobile application, application on the processing side, application on the bank side.

## Chapter-2.1 (example “Data flow diagrams”)

AAA.

See the document “DataFlowDiagram.pdf”  
Data flow diagram describes requests and response between external applications and systems inside corporate domain. All requests are asynchronicals.

**Chapter****-3 (example “Attack trees”)**

See the document ”FullThreadModelReport.htm”

ThreadModelReport based on Microsoft Technologies and does not show potential threads in general, but you can see general point of view.