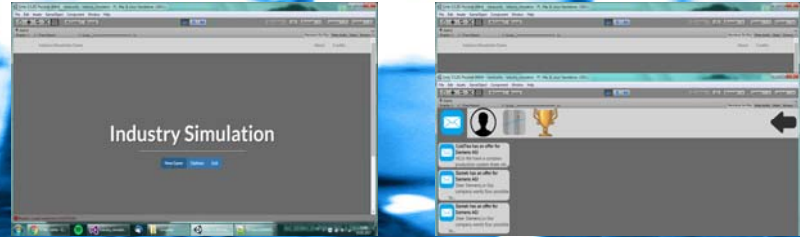# ENS 492 Graduation Project
Industry 4.0 Simulation Game

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ABSTRACT:

The subject of Project is Industry 4.0 Simulation Game by Siemens that is a simulation computer game. It depicts a different super-classification of computer games, by and large intended to nearly simulate parts of a real or fictional reality. Siemens has several simulation software of games about industry and Industry 4.0 but they have a different design and target. Therefore, Siemens's new project is more instructive and educational to newly hired people than others.The project provides people to train themselves and to be fast adaptation for knowing Siemens's products and their process.
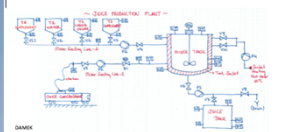
Figures 1&2: Screenshots of the Game

Figures 3&4: Examples of mails for S7 1500 PLC family

OBJECTIVE:

Siemens is constantly hiring workers in order to meet the requirements of marketing of their products. People are marketing the products such as PLCs, HMIs, etc. need much background information about those products, in order to meet the requirements of the customers and to pick right products for customers' needs.

The project, "Industry 4.0 Simulation Game", aims to train the people who is newly hired by Siemens to shorten their adaptation time with the products and getting them familiar with these products without losing their interest by make them read plain-text. In addition, new hired workers should understand well for the customer's offers and needs.

METHODS :
- **Price information of PLC, CPU, Digital/Analog Input & Output, Memory Card structures over P&ID**
  (Piping & Instrumentation Diagrams is a detailed diagram in the process)
- **Using of XML format**
- **Concept of Pop-up quiz questions**
- **Designing of scorecard**
- **Designing of game structure**
- **Analyzing of system required and system model (setup of mock up)**
- **Required limitation and formulation of the game**
- **Concept of Configuration**

RESULTS :
- **Learning the facts which are essential tasks for a Siemens project engineer's work-day will help a newly hired R&D Engineer.**
- **Playing that game saves the learning time of the job tasks**
- **Getting used to some possible work scenarios. After finishing the game, employees will find out what is plc, hmi, io and some motor structures**
- **Interacting the clients and their possible problems**
- **Aiming to make proximate game of the real work structures.**
- **In this game, firstly gamer receives a mail from costumer which has offer for Siemens AG and P&ID configuration then Siemens AG gives a price list and detailed information about components.**
- **Mail tab consist of customer orders mails, acceptation or rejection of mails from customers, detailed information of the intended work mails from customers and notification mails from the game itself.**

Figures 5&6&7 : Screenshos of mails by the customers and with P&ID configuration