



Undergraduate Project 2016-2017

Supervisor: Dr. P de Vrieze

Project title: Web based user interaction system

Background

This project is designed in the context of existing research into allowing end-user defined and ran business processes. The business processes are created and executed on a central server, invoking services where appropriate (the system is designed as a service oriented architecture). The modularity allows for independent instances that have different modules replaced, thereby allowing experimentation and student projects.

This work is a very broad area, with many unsolved problems. Multiple student projects can work on this in parallel, and may or may not interact with each other (all projects need to be independent to a large degree) at all.

Project description

As part of the problem, web services need to be coupled to process activities. As such, the process model editor needs to have the capability to suggest candidate services. This suggestion should be based upon contextual information including the model, other web services used in related activities, as well as textual search queries.

Project aims

Research question

There are a number of research questions that may be asked in the context of this project:

- How can custom data display or editing web widgets be combined into an overall task display?
- How can a task management and interaction system be created with optimal usability?

Additional aims and objectives

- Develop an artefact that fits within the context of the rest of the infrastructure.

Artefact

This project is centered around creating the web user interface of a flexible task management system. Users get offered or assigned tasks. They are able to update the status of these tasks (accept them, mark the task as started, etc.). Tasks are defined in terms of elements representing data. Elements are either presentation of read-only data, or they allow for editing of data that is the output of the task (it may have an initial value). These elements are defined in a configuration xml definition. The current data in the elements can be stored at the server without affecting process state. Effectively a task takes the shape of a form.

The artefact should support various (sometimes complex) controls that allow for editing and displaying of data, as well as controlling the completion of tasks. An extension could evaluate the usage of the controls in the context of Android webviews.

Evaluation

A significant aspect of the project is the use of a case study to evaluate the solution and the artefact. The discovery, adaptation and description of the case study is in principle up to the student.

Additional aspects

You will be assumed to release your work under a suitable open source license to allow future extension.