System Integration Mini Project EIP

Objectives

The main objective of this task is to provide the students with practical experience in implementing best practices for integrating enterprise applications by use of integration platforms and middleware.

Task

The common approach of acquiring stocks and services includes searching, seeking, and selecting the best value, according certain criteria. This counts for numerous cases, in which a human takes a decision or makes a choice, including while booking trips and facilities.

Your task is to create an application, which supports customers in making choices.

A. <u>Business Scenario</u>: select one or two business processes, involving cases, where one or more humans need to collect information from various sources and take decisions/make choices.
    a) consider collecting large amount of data, which can be processed and reduced to short lists of suggestions, presented to the customers to choose from
    b) consider applying selection rules, defined by the customers
    c) consider using various data formats, such as json, xml, txt, csv, pdf, etc, as well as recording a history, which could be used for future analysis
    d) design the processes in BPM notation

B. <u>Software Implementation</u>: create a solution, which automates as many operations, as possible.
    a) aim at loose coupling of the sub-systems
    b) aim at asynchronous communication between the sub-systems, when appropriate
    c) take use of integration development platform
    d) implement enterprise integration patterns

Requirements

This project is **mandatory**. It is a **teamwork**. The recommended average size of a team is 3 students.

The application must have **business context**. It may invoke applications and services from public resources. Previously submitted projects of yours can be reused, as well. It is recommended, but not obligatory, to work on the booking system, you are already engaged with.

There is no requirement for using specific middleware, but you must choose **at least one integration platform**, such as BPMN, MOM, ESB.

Your solution must illustrate the implementation of **at least five enterprise integration patterns**.

The data processed by the application should exist in **at least two different formats or structures**.

Presentation and Demonstration

As scheduled, the project solutions must be uploaded to *Peergrade*, presented, and demonstrated to the class on the 06/11/2019, at latest.

It has to be documented in a readable format, containing the following attributes:
- authors' details
- brief summary of the application's architecture, business and technical features
- diagrams, illustrating the above
- installation instructions

The whole application or components of it can be re-used in the following assignments, including the exam project.

From the instructor

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