Project Proposal – Automated quality improvement

1. Introduction

Visma Consulting Oy delivers the leading cloud based e-business platform in Finland. Our solution is based on open source technologies and provides excellent tools for digitalizing customer services. Use of our e-business solution is growing rapidly and we are continuously searching for enthusiast developers to help us to give us new views for our product portfolio. We have already hundreds of thousands of potential e-business users on our platform. This leading edge, multi-customer environment translates to an interesting and educating environment to work in.

2. Project goals

The goal of the project is to

- increase automation of service development process and
- improving the quality of service development.

Actual deliverables consist of parts described below (not in exact priority order)

- Automating service development and deployment process
  - designing, implementing and deploying tools for transferring e-business services (forms, processes and service configurations) between distinct environments
  - must have features include ability to import and export content in versionable and human readable format like XML
  - the tools must be integrable into existing software
- Enabling test automation of deployed services
  - design, implement and deployment of test automation framework
  - main features to be implemented are
    - ability to manage test sites creation and test data,
    - way to create and describe automatic tests and
    - running the automated tests.

3. Technologies

Service development tools must be implemented in Java (+ Spring framework) so we can integrate those into our platform. The exact support libraries, style and architecture are designed while implementation progresses. Students are free to use IDE of their liking.

Test automation tools require some basic Java knowledge as the test data creation must be done with custom made site builder tool. The testing framework is not yet decided, however Selenium and Robot framework (uses Selenium) are considered as viable options. Students can suggest testing tools based on the requirements we have.

Preselected technologies are widely used and de-facto standard in open source world. We have a long history of utilizing open source in our e-business platform.

4. Requirements for the students

Any special skills desired or required from the students.

Briefly describe your opinion on the difficulty of the topic: easy, moderate, or demanding.
At least some of the students should have basic knowledge of programming and interest of learning Java (unless not known already). Previous knowledge on XML, HTML and Javascript are plus but not mandatory.

Project difficulty should be moderate. We can provide support on all aspects of the project and the implementation itself should not be very complex.

5. Legal Issues

Intellectual Property Rights (IPR):

1. The client gets all IPRs to the results.

Non-disclosure agreement (NDA):

1. Signing the NDA included in the Aalto's contract template is required.

6. Client

Visma Consulting is one of the most successful and fastest growing IT consulting companies in Finland. We are providing IT consulting services and IT solutions for Finnish top 500 companies and public sector organizations with a team of 200+ consultants. Our expertise is in digitalizing the economy with solutions such as eBusiness and eGovernment, collaboration and portals, business intelligence and CRM solutions. We belong to Visma group which is one of the biggest Nordic software company with over 5000 employees.

The client will provide the team with help and guidance by the key experts in the field including our CTO, Chief architect and business unit director. Each of them will invest as much time to the project as is needed to make sure the project will be a success.

We will provide the team with a working room and the development environment where the product will be implemented, tested and deployed. We will also provide all the necessary help in setting up the environment and getting all the necessary software for the project.

Client representative(s)

- CTO
- Jyrki Niekkamaa
  - [jyrki.niekkamaa@visma.com](mailto:jyrki.niekkamaa@visma.com)
  - 040 5076950
  - Arkadiankatu 2, 00100 Helsinki

- Chief Architect
- Matti Kosunen
  - [matti.kosunen@visma.com](mailto:matti.kosunen@visma.com)
  - 040 7725855
  - Arkadiankatu 2, 00100 Helsinki

Preselected Student Team Members
None.

7. Other

None