Lab 1.   Specification of system requirements. Use Case diagram

Objective: To study the basic features for creating and editing use case diagrams

Tasks

1. Choose one of the company type from the excel list or use your own company type. In the course of the assignments, you will have to describe and suggest some business processes automating of the selected company.

2. Define list of high-level customer's needs, which going to be solved by the information system implementation. Not less than 5 customer's wishes in list.

Create Use Case diagram for the general company use cases. Diagram should include situation with at least two actors collaboration.

3. Create Use Case diagram image (png/jpeg/gif). Add image to doc report (see template in https://github.com/j-avdeev/EnterpriseSystemsDevelopment/tree/master/Assignment%20Reports%20Template)

Notice

For UML diagram plotting you can use StarUML, draw.io or another available software tools.

Lab 2.   Specification of system requirements

Objective: To explore the possibilities to describe the requirements for the designed software

Tasks

1. Create valid IDEF0 diagrams for the general company processes up to 3d level detailing. At 3d decomposition level should be at least one process with at least two actors collaboration.

2. Add IDEF0 diagrams images to doc report.

For IDEF0 diagram plotting you can use:

- Ramus Educational (http://www.ramussoftware.com/en/index.php?option=com_docman&Itemid=6) does not work with modern JRE.

- Microsoft Visio (not-Free).

- Another available software tools.

Notice

You have to prepare at least 4 diagrams: A-0, A0, 2 or more decomposed A0 blocks.

Model level	
0	Top level A-0, one block. Arrows show object connection with environment.
1	A0. First level, contain top processes.
2	Second level, top processes decompositions. You have to show at least 2 decomposed A0 blocks.

Lab 3. Class diagram

Objective: To study the basic features for creating and editing class diagrams

Tasks

1. Study the possibility of describing the static structure of the information system. Learn how to allocate in the system of the basic classes and describe their properties and behavior. Create Class diagram. Describe at least 5 classes with relations.

2. Add Class diagram image to doc report.

Lab 4.   Business Process Model and Notation (BPMN) diagram

Objective: To study the basic features to create and edit BPMN diagrams

Tasks

1. Create BPMN diagram for chosen business process, which include collaboration of at least 2 actors. Use BPMN notation (http://www.bpmn.org/)

2. Add BPMN diagram image to doc report.

Notice

For BPMN diagram plotting you can use Bizagi Modeler (http://www.bizagi.com/en/products/bpm-suite/modeler) or another available software tools

Lab 5.   Business process implementation

Objective: To study the business process implementation

Tasks

1. Create Cuba Platform project, which will implement one of business processes of previously selected organization.

2. Add section to doc report image, which should include:

- Selected business process description (several sentences). It is desirable that the business process be the same as business process described in assignment #4.

- Instructions for running the application, prerequisites.

- Step-by-step instruction with a demonstration of business process automation using the application.

Notice

Use Cuba Platform documentation (for example https://doc.cuba-platform.com/bpm-latest/bpm.html).

Yes, can use your preferable framework (not Cuba Platform) to create a web application to automate chosen business process.