2017

Web Engineering Assignment 04

BY:

GROUP NAME: UNIFORM

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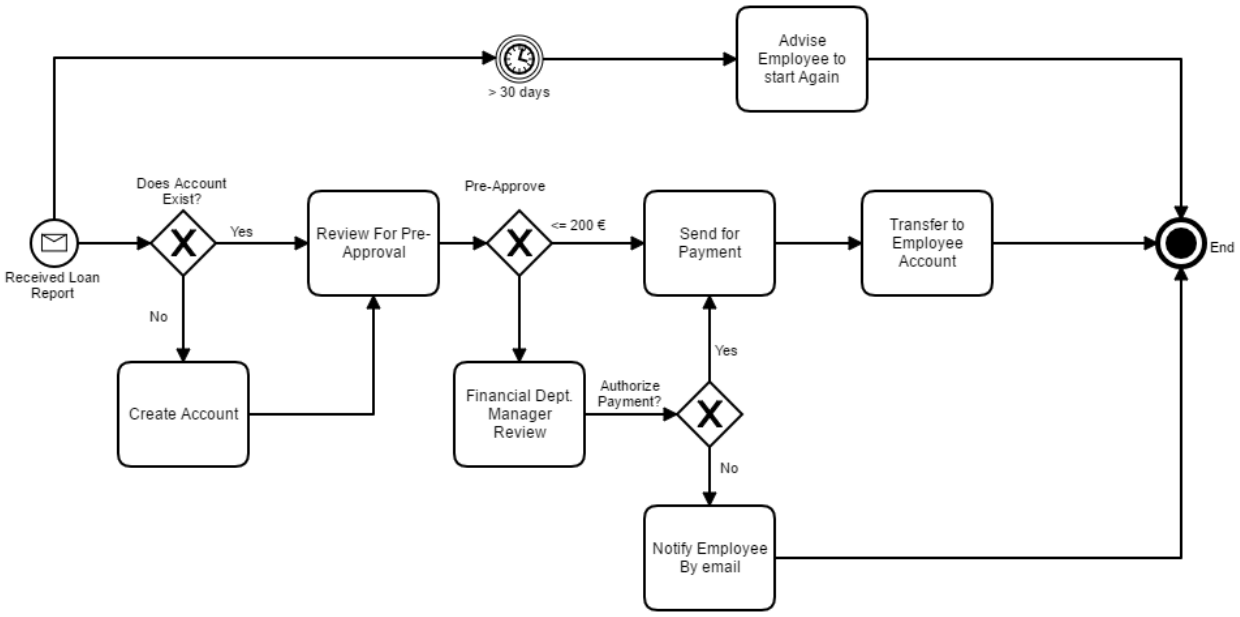
Web Engineering

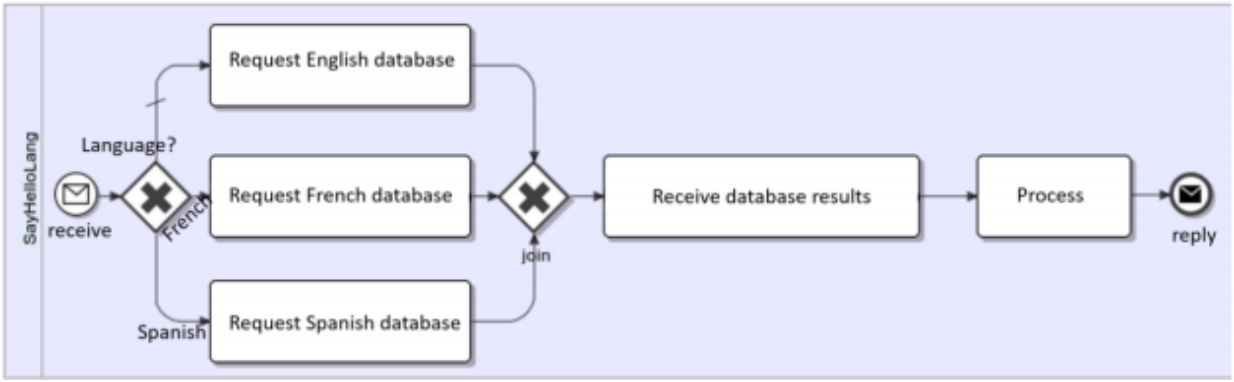
Assignment 04

Q1. Model a BPMN diagram according to the following description. (6 points) In this exercise, you will model a process for reimbursement of expenses of an employee in a company. An employee determines expenses and requests for reimbursement by sending an expense report. For instance, the expenses could be to buy a book, equipment, or software.
The Process:
1. Once an expense report is received by financial department, an account must be created for the employee if one does not exist.
2. Expenses below 200 euro does not need the approval of the financial department manager, and are directly transferred to the account of the employee.
3. Expenses higher than 200 euro must be first approved by the financial department manager, and in case of approval, the expenses are transferred to the account of the employee.
4. If a request higher than 200 euro is rejected because it is not approved by the financial department manager, the employee must be informed about the rejection by Email.
5. If a request is open more than 30 days, the process should be stopped, and the employee should be informed that a new request is necessary.

Answers: Below is the BPMN diagram from above description:



Q2. Please transform the following BPMN diagram to BPEL. Use placeholders for information required by BPEL, which is not provided in the BPMN diagram.



Answers:

The BPEL conversion of above BPMN diagram is:

```
<process name="SayHelloLang">
        <variables>
                <variable name="Lang" type="xsd:string"> </variable>
                <variable name="Result1" type="xsd:string"> </variable>
                <variable name="Result2" type="xsd:string"> </variable>
                <variable name="Result3" type="xsd:string"> </variable>
                <variable name="Spanish" type="xsd:string"> </variable>
                <variable name="French" type="xsd:string"> </variable>
        </variables>

        <assign>
                <copy>
                        <from expression="'Spanish'"/>
                        <to variable="Spanish"/>
                </copy>

                <copy>
                        <from expression="'French'"/>
                        <to variable="French"/>
                </copy>

        </assign>

        <sequesnce >
                <recieve name="Language" variable="Lang"> </recieve>
                <switch-1 name="Exlusive_Gateway1">

                        <case condition="bpws:getVariableData(Lang) ==
bpws:getVariableData(Spanish)">
```

```
                        <invoke name="activity1" operation="RequestSpanishDatabase"
inputVariable="Lang" outputVariable="Result1"> </invoke>
                    </case>

                    <case condition="bpws:getVariableData(Lang) ==
bpws:getVariableData(French)">
                        <invoke name="activity2" operation="RequestFrenchDatabase"
inputVariable="Lang" outputVariable="Result1"> </invoke>
                    </case>

                    <otherwise>
                        <invoke name="activity3" operation="RequestEnglishDatabase"
inputVariable="Lang" outputVariable="Result1"> </invoke>
                    </otherwise>

            </switch-1>

            <invoke name="activity4" operation="RecieveDatabaseResults"
inputVariable="Result1" outputVariable="Result2"> </invoke>

            <invoke name="activity5" operation="Process" inputVariable="Result2"
outputVariable="Result3"> </invoke>

            <reply name="Reply" operation="ReplyToUser" variable="Result3"> </reply>
        </sequesnce>

</process>
```