Simple Calculator

SE554 – Enterprise Component Architecture Project

Sample project

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# Overview

Basic calculator (+, -, \*, /) functionality for human and other system usage. Specializing in different web services option.

# Requirements

## Use Case



## Description of problem

Basic calculator operation service that supports human interaction using Web or system based request using message queue or via web services.

# Design

## Sequence of major functionality

### Web UI (Common case)



### Web service to the session bean



This project demonstrate web services in 3 different ways using SOAP, WS-Address, and REST.

### Message driven bean to the session bean



## Table layout



There is only one table to fulfill the requirement for persistence.

## Deployment

All the classes were packaged into one deployment unit to keep things simple.



Queue: CalculatorQ

Data source: jdbc/sample

# Discussion of how your design met the requirements

This sample project did not meet the functional requirements but was created to validate the component interaction for different technology pieces.

This also serves as a reference document for other projects of basic expectation of the course project work

# Discussion of lessons learned

# Decision Log

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem** | **What was decided** | **Alternatives considered** | **Rationale** |
| Which IDE to use | Netbean | Eclipse | Netbeans had all the components integrated in one UI |
| Which build to use | Maven | Netbean specific Ant | Want to allow users of Eclipse to view the project with limited issues |
| Application server to use | Glassfish | JBoss | Glassfish is integrated out of the box with Netbeans |
| Web only or complete  enterprise application | Web only | Complete enterprise application | Simple is good |