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Cannot resolve external resource into attachment.

## 1. Scope

### 1.1 Overview

This component which allows to user get prerequisite documents which should be signed for a specific role; get concrete prerequisite document; get all prerequisite documents; record answer for document. It defines web service interface and provides its EJB endpoint implementation. Component uses TopCoder Prerequisite Document Manager for providing all operations with persistence. It should not access to persistence by itself.

### 1.2 Logic Requirements

#### 1.2.1 Required operations

Execution of all operations depends on user permissions. There are two kinds of user - simple user and administrator. Administrators can get any kind of prerequisite documents; the other users can get only answer on document or get prerequisite documents only if he in role needed for answer or for getting prerequisite documents. For example if user has "Designer" role for some application he/she can get prerequisite documents for "Designer" role, but he/she can not get prerequisite documents for "Developer" role. So user role allows him/her to get prerequisite documents to sign. Also user can record answer (agreement or disagreement) for document but only if only he/she has given for record role. Almost all methods have user permission access, but can have different execution logic for user and administrator.

##### 1.2.1.1 *Get Prerequisite Documents*

This method is used to get all prerequisite documents for competition and user role for competition. Note that such methods return only specific versions of documents; actually it can return two different version of the same document. User can get documents' versions only if he has given role. Administrator can get any document and any version of document.

##### 1.2.1.2 *Get Prerequisite Document*

Get specific version of prerequisite document. Version can be not specified and in this case methods should return the latest version of document

##### 1.2.1.3 *Get All Prerequisite Documents*

Get all version of prerequisite document. This is only administrative function.

##### 1.2.1.4 *Record member answer*

User can accept or reject document by using this method. Based on parameters methods should create new instance of MemberAnswer and record it. User can provide answer for document only if he has given role. Note that member provide answer only for given role and can not answer twice for the same version of competition document.

#### 1.2.2 Service description

Created service should correspond given WSDL description. Any change or update of WSDL should be confirmed by PM. Custom exception should correspond fault messages defined in WSDL.

### 1.2.3 EJB description

Stateless bean should have both remote and local interface. All its methods should have security role access - "User", except methods which gets all prerequisite documents. Its role should be "Administrator". Note that security identity of EJB should be also "Administrator".

### 1.2.4 Logging

All defined operations should be logged. The logging mechanism should be pluggable e.g. there should be option to disable logging.

Logging strategy:

- Entrance and exit of methods should be logged at the INFO level
- Exception should be logged at the ERROR level

### 1.2.5 Get role and identifier of current user

- Get user principal by calling `getCallerPrincipal()` method on the `EJBContext`
- It should be returned `UserPrincipal` instance defined in JBoss Login Module.
- User roles will be found in the "roles" attribute of the Profile as a map, where keys are Long instances - role id and values are strings - role names.
- User id should be stored as attribute of `UserPrincipal`

### 1.3 Required Algorithms

None

## 1.4 Example of the Software Usage

This service can be used by users to get prerequisite documents for specific competition and accept or reject the document.

## 1.5 Future Component Direction

None.

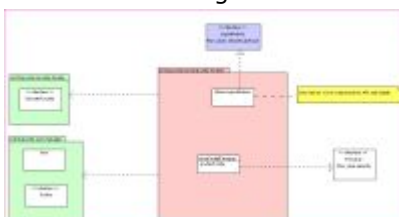
## 2. Interface Requirements

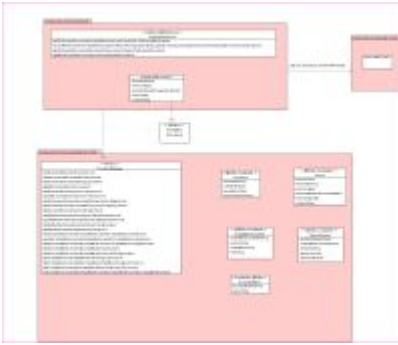
### 2.1.1 Graphical User Interface Requirements

None

### 2.1.2 External Interfaces

See Interface Diagrams





## 2.1.3 Environment Requirements

- Development language: Java1.5
- Compile target: Java1.5, Java 1.6

## 2.1.4 Package Structure

com.topcoder.service.prerequisite

# 3. Software Requirements

## 3.1 Administration Requirements

### 3.1.1 What elements of the application need to be configurable?

com.topcoder.service.prerequisite

## 3.2 Technical Constraints

### 3.2.1 Are there particular frameworks or standards that are required?

EJB 3.0

Hibernate 3.2 and higher

### 3.2.2 TopCoder Software Component Dependencies:

Base Exception 2.0

Logging Wrapper 2.0

TopCoder Prerequisite Document Manager 1.0

JBoss Login Module 2.0 (it uses UserProfilePrincipal instance)

### 3.2.3 Third Party Component, Library, or Product Dependencies:

None.

### 3.2.4 QA Environment:

- RedHat Linux 9
- JBoss 4.2



### **3.3 Design Constraints**

The component design and development solutions must adhere to the guidelines as outlined in the TopCoder Software Component Guidelines. Modifications to these guidelines for this component should be detailed below.

### **3.4 Required Documentation**

#### **3.4.1 Design Documentation**

- Use-Case Diagram
- Class Diagram
- Sequence Diagram
- Component Specification

#### **3.4.2 Help / User Documentation**

- Design documents must clearly define intended component usage in the 'Documentation' tab of TopCoder UML Tool.