



## D8: MAINTENANCE REPORT

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# **1 Purpose and Description of Document**

This report documents maintenance improvements to our Intern Management System implementation.

Due to updating of system requirements by the client it became necessary to make several adjustments to the implementation.

## **1.1 Changes to system requirements**

- A student should be able to accept multiple approved internships, provided their dates do not overlap.
- Students must have sufficient approved internships to cover a total of at least 12 weeks.
- Addition of the WITHDRAWN status for each role.
- The same academic visitor must visit all internships assigned to a single student.

# **2 Changes**

## **2.1 Role Implementation**

### **2.1.1 Role Status**

Approval status changed from a boolean value to an enum (PENDING, APPROVED, WITHDRAWN) due to changes to system requirements.

### **2.1.2 Role Status**

Added grade variable (To allow removal of Visit class) for assignment by visitor due to changes to system requirements.

## **2.2 Placement Implementation**

### **2.2.1 Placement Role**

Role changed from singular to array, allowing several roles to be assigned to the same students placement. Change necessary due to changes to system requirements.

### **2.2.2 Addition of Approval**

Boolean value added to indicate whether placement has been approved by the coordinator. Change necessary due to changes to system requirements.

### **2.2.3 Addition of Internship Duration Constraint**

To be approved a students combined placement roles must sum to at least 12 weeks in duration. Change necessary due to changes to system requirements.

#### 2.2.4 Addition of updateRoleStatus Method

Method added to allow employers to approve a student for a role. Change necessary due to changes to system requirements.

### 2.3 Visitor Implementation

#### 2.3.1 Assignment to Students

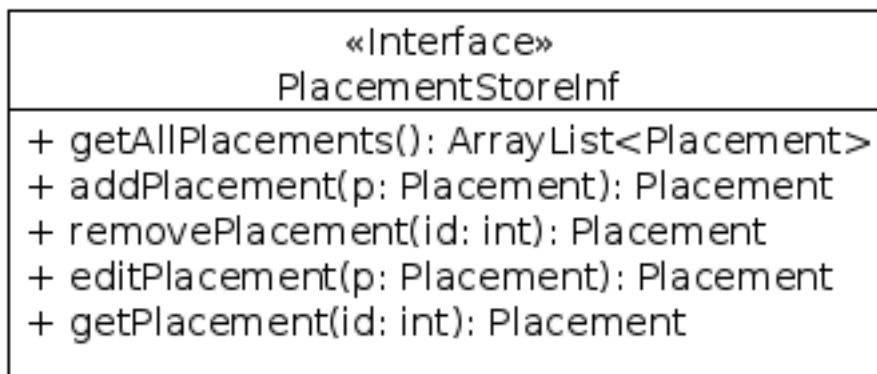
Addition of array of students (to allow removal of Visit class) which the visitor is assigned to. Change necessary due to changes to system requirements.

#### 2.3.2 Addition of assignPlacementGrade Method

Method added to allow a visitor to assign a grade to one of the students he is visiting. Change necessary due to changes to system requirements.

### 2.4 Changes to Class Diagrams

Due to changes to the specification the Placement Store API changed somewhat. Hence the class diagram was updated as below.



## 3 Changes to the API and potential future changes

### 3.1 API Changes

Because of the changes made, some API calls needed to be changed:

- IsApproved() method of the Role interface changed to getStatus(), since there are three possible status a role might have. The returning type is Status instead of the initial boolean type. To respect backwards-compatibility, the isApproved() method has been left as a method, returning true if the Status is APPROVED or false if it is WITHDRAWN or PENDING.
- Placement constructor was updated to take the additional Status parameter.

- Grade attribute was added so the Role had to be updated as well as a consequence.
- Visitor class was updated to have each visitor hold a list of the students to which they have been allocated for visits.

### **3.2 Acceptance Test**

Because of the changes made, the following changes to the acceptance tests should be done:

- Additional tests need to be written for when a student withdraws his application for a role.
- Tests should be added for a visitor to set a grade for a visit to a student's role.
- Test should be added for the case where a student has multiple roles, and also check coordinator approval only being possible if their total duration is at least 12 weeks.
- Multiple roles added to the same placement need to be checked for overlapping.
- Since employers can also approve students for a role, further tests should be written for this.