Building Block That Allows Instructors To Merge Courses

Bruce Phillips
University of Kansas

About Me

- Java programmer University of Kansas
- bphillips@ku.edu
- Part of a team responsible for integrating Blackboard with other enterprise systems
- http://www.brucephillips.name/blog

References

- GitHub https://github.com/phillips1021/phillips b2 examples
- Blackboard Learn 9.1 SP 12 Help - https://help.blackboard.com/en-us/Learn/9.1 SP 12/ Administrator
- Blackboard Learn 9.1 SP 12 Course Management - <u>https://help.blackboard.com/en-us/Learn/9.1 SP 12/</u> <u>Administrator/160 Course Management/</u> <u>020 Managing Courses</u>
- Building Blocks API - http://library.blackboard.com/ref/ d9a0b6b8-1250-48eb-baa2-b1148e908f86/index.htm

Requirements

- Create in Blackboard all classes offered per term
- Starting with Bb Learn 9.1 SP 8 Blackboard provided administrators with mechanism to merge courses
- Instructors who teach multiple classes need a way to merge those classes in Blackboard so they have only one Blackboard course to manage
- Having Blackboard administrator do all merges is not supportable due to volume and timeliness

Business Rules

- Parent (AKA Master) course must be an existing Bb course
- Instructor must be assigned to the parent and child courses
- A parent course cannot be a child of another course
- A child course can only have one parent course
- Parent and child courses must be in the same term

Course Merge Building Block

- Course tool visible only to instructors
- Instructor opens the Bb course that will be parent (AKA master)
- Instructor clicks on the Course Merge B2
- Instructor selects the child courses
 - Only sees child courses eligible for merging
- Instructor confirms the selections and completes the merge

Demonstration

Blackboard Course Merge APIs

CourseCourse

- represents a merged relationship between two courses
- Stores PK1 values from course_main table for parent and child courses

CourseCourseDbLoader

- loadByParentId returns collection of CourseCourse objects that are children of the provided parent course
- loadParent return CourseCourse object that represents the parent course of the provided child course

Blackboard Course Merge APIs

- CourseCourseManagerFactory
 - getInstance returns CourseCourseManager object
- CourseCourseManager
 - addChildToMaster creates the merge relationship; returns FailedCrossListEnrollments object
 - isCourseCrossListed returns true if course is a parent or child course
- FailedCrossListEnrollments (not found in published API)
 - getAllFailedEnrollmentMessages returns collection of Strings

Effect of Merging Courses

- What Do Instructors See?
- What Do Students See?
- What Do Systems Admin see?
- Blackboard Database Changes

What Do Instructors See

- Child courses are made unavailable
- Listing of courses includes note when a course is a child of another course
- Parent course enrollments include students from the child courses
- Instructor manages all content in the parent course

What Do Students See

- Title of child course in the listing of their courses
- Content shown for child course is content of the parent course

What Do System Admins See

- Up arrow indicating parent-child relationship
- Parent course enrollments include students from child course(s)
- Ability to separate the child course(s) from the parent course
- Ability to add additional child course(s) to the parent course

Database Changes

- For each parent child relationship a record is inserted in the course_course table
- An enrollment record is inserted into the course_users table for each person who is in the child course but is not in the parent course
 - A column named child_crsmain_pk1 stores the value of the child course pk1
 - Problem is that for enrollments the merge only tracks one child course for a parent course but student could be in multiple child courses of the same parent
- If the person in the child course is already in the parent course then the child_crsmain_pk1 value is updated in the course_users table

Issues

- Parent course enrollments not correctly updated when courses are merged
- Child course enrollments are not correctly updated after courses are merged
- Student can be in multiple child courses but the merged enrollments can track only one child course
- What happens when students enrolled in a course that is merged drop either the parent or child course or both in Student Information System?

Questions?

• <u>bphillips@ku.edu</u>