



Things to Consider When Building Data Feeds

BlueNotes Global – August 2018



UNIVERSITY OF
MARYLAND

Research 1
Metropolitan area
Division I

~29,000 UG

~10,000 Grad

~14,000 Employees

~6600 courses

>173,000 Evaluations

10 reports/main project



Agenda for Presentation

- What information is needed?
- How Blue uses data
- Evaluation factors
- Report factors
- Logic that may need to be added
- Where and how are the data stored?
- Source tables and how they combine
- Avoiding potential pitfalls

What Information is needed?

- User Contact Information
- Course Information
- User Course Relationships
- User Access Relationships

Why Automate?

- Allows updates regularly
- Reduces burden for BlueAdmin
- Reduces user error
- Allows systems at campus to show the data

Project - How Blue Uses Data for Eval

Course

Course-ID
Characteristics
Dates

Crs-Teacher

Course-ID
ID
Role

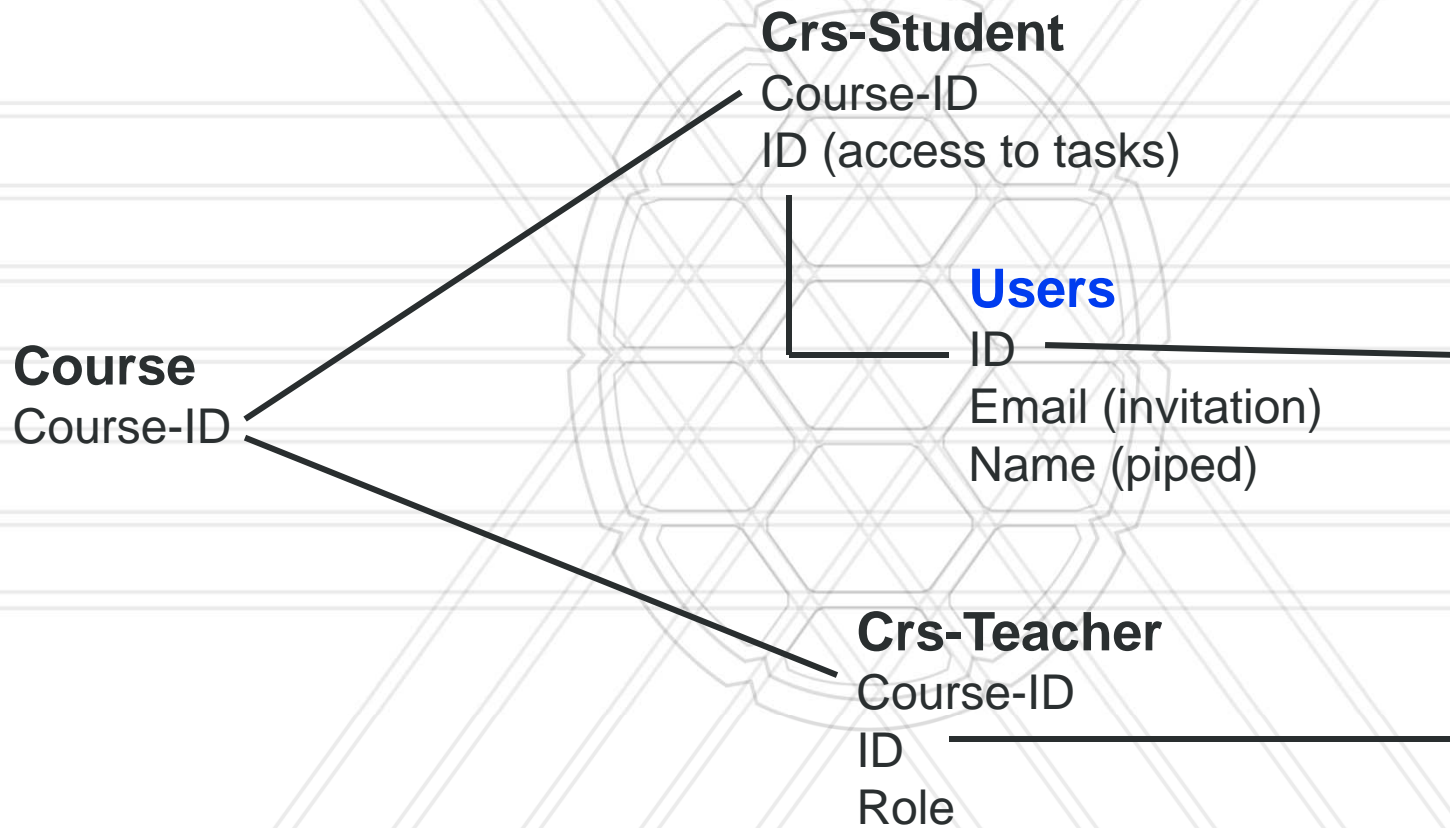
Users

ID
Email
Name

Evaluation

- Course Questions
- Instructor Questions (Name)
- TA Questions (Name)

Project - How Blue Uses Data for Invite



Reports - How Blue Uses Data

Course

Course-ID

Display info

Characteristics (access, norms, triggers)

Crs-Teacher

Course-ID

ID

Role (trigger, access)

Users

ID

Name (piping)

Email (invitation)

Admin View - How Blue Uses Data

Course

Prefix _____
Dept _____
College _____

Hierarchy

Prefix
Department
College
University

Viewers

Prefix
Department
College
University
ID

Users

ID
Name (piping)
Email (invitation)



Questions?



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Evaluation Factors – Data Feed

- How will dates be handled?
 - Logic for dates
 - Dynamic Days
- Will your evaluation have triggers?
 - Teaching role questions
 - College/Dept/etc. specific questions
- Are there filters needed?
 - Cohorts
 - Individual Instruction

Report Factors – Data Feed

- Admin Viewer access
 - Level of access
 - What access granted
- Current organization
 - Hierarchy
 - Ownership
- Future re-orgs

Report Factors – Data Feed Cont.

- Merges
- Comparisons
 - College
 - Department
 - Course Level
- Course information
 - Access for instructors to their TA reports



Questions?



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Hierarchy Logic

- Hierarchy Info (College, Dept, Prefix)
- Uses
 - Triggers
 - Access
 - Ownership rules
 - How to decide between multiple owners
 - How many layers do you need for the full cycle

Date Logic

- Include in Feed vs. Filter in Project
- Evaluation Dates

<i>Class Duration</i>	<i>Evaluation Duration</i>	<i>Evaluation Start</i>	<i>Evaluation End</i>
Standard 16-week Fall/Spring classes	13 days	11 days before last day of class	1 day after last day of class (Reading Day)
1-2 days	1 day	Last day of class	Last day of class
3-13 days	2 days	2 days before last day of class	1 day before last day of class
14-29 days	3 days	3 days before last day of class	1 day before last day of class
30-98 days	5 days	6 days before last day of class	1 day before last day of class
99+ days	13 days	11 days before last day of class	1 day after last day of class

- Report Release

Merge Logic

- What sections get merged?
 - Lectures vs. Cross-listed vs. other
- Merge information needed
 - Merge ID
 - Merge Name
 - Merge Primary
 - Dual ownership of courses
 - Primary with no students and/or no teacher

Where do you start?

- What tables have the needed pieces?
 - Where are the tables stored?
 - Who has access to the tables?
- What is the format of the data?
- When do the tables load?
- How does Blue want it?

Source Tables Examples

- **Course**
 - Term
 - Title of course
 - Course Information (Prefix, Number, Suffix, Section)
 - Course Characteristics (Individual Study, Lab, etc.)
 - Course links (shared, grouped, cross-listed)
 - Course dates and times

Source Tables Examples

- **Course Ownership**
 - Term
 - Course Prefix
 - Unit
 - Department
 - College
 - Primary Owner Flag

Source Tables Examples

- **Schedule-Student**
 - Term
 - Course Information
 - Student ID number
 - Registration Type

Source Tables Examples

- **Schedule-Teacher**
 - Term
 - Course Information
 - Teacher ID
 - Teacher role in the course
 - Teacher employee info
 - Teacher evaluation flag

Source Tables Examples

- **Directory of Students**
 - ID number
 - Name info
 - Email
 - Other demographics
 - Any duplication?

Source Tables Examples

- **Directory of Employees**
 - ID number
 - Name info
 - Email
 - Other demographics

Source Tables Examples

- Evaluation Report Access
 - ID number
 - Access
 - Level (prefix, department, college, university)
 - Area (which prefix, department, etc.)

Combining Data – Course Feed

Course Table

Concatenate several to make Blue Crs ID
Start/End create duration
Duration and start-end create eval dates
Link section to make Merge info
Use Merge ID to make merge primary flag

Course Ownership Table

Link on Term, and Course Prefix
Pull in

- Department
- College
- auto populate UMD

Course-Feed

Course-ID
Trigger Fields
Course Dates
Evaluation Dates
Grades
Merge Information
Course Ownership
Course Type
Course Level
Fields for populating reports

Combining Data – Viewer Feed

Viewer Security Table

ID number
Level of Access
Area of Access

Report Viewer

ID number
Report Viewer
All current children

Course Current Ownership

Link on Area of Access
Pull in

- old prefixes under that area
- current prefixes under that area



Questions?



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Avoiding Potential Pitfalls

- Use a non-changing ID
- Load all the rows you will need for reporting even if there won't be an evaluation
- Avoid non-unique codes for entities
- Have plans for organization changes
- Have a plan for non-standard terms
- Test new feeds

Avoiding Potential Pitfalls

- Use consistent understandable names
- Have both codes AND descriptions
- Plan for upgrades and maintenance
- Test new features
- Null column for flagging
- Others?

Final Questions?



The background features a large, faint watermark of the University of Maryland logo, which is a circular emblem with a grid of lines forming a stylized 'U' and 'M'.

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