



PHYTORION



Build, Buy, or Both: Phytorion's Data Warehouses

Session 29921

Tues 9:30 AM

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Presenters

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Agenda

- Nature of Data Warehouse
- Phytorion Overview & Approach
- Functionality
- Examples
- Metadata
- BI Demo

Higher Ed Debate

Is the Data Warehouse:

- A product?
- A project?
- A process?
- A program?

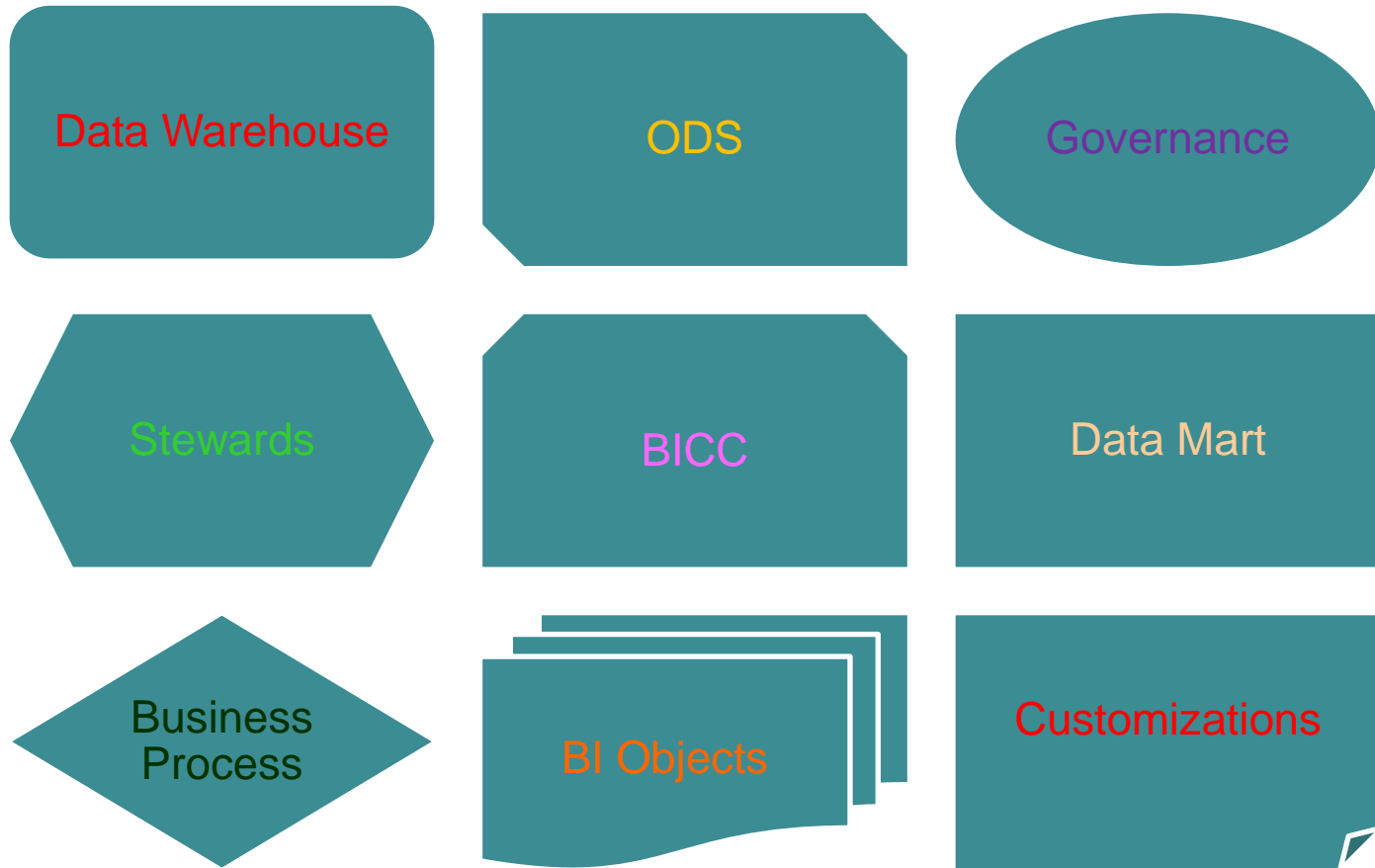
And the Question

Can you buy a Data Warehouse?

Or, more accurately...

What pieces can you buy?

Universe of DW/BI



Offerings Past and Present

- PeopleSoft:
 - RDS – first reporting offering for HE
 - JumpStart – custom star schemas inside EPM
- **Phytorion – 3 types of offerings:**
 - Fully custom data warehouses
 - Pre-packaged data marts
 - Hybrid data warehouses

Hybrid Approach

- Fit-Gap
- Design
- Code & Test
- Metadata
- BI
- Knowledge Transfer
- Maintenance and Upgrades

Functionality

➤ Products:

Student, HRMS, Finance

➤ Sources:

PeopleSoft, Lawson, Quali, legacy,

3rd party, spreadsheets

HRMS Content

- *Personal Data*: Bio/Demo, Disabilities, Visa, Qualifications
- *HR*: Position, Job, Compensation, Earnings, Salary, Contracts, Evaluations, Competency
- *Payroll*: Paycheck history, Earnings/Deduction Balances, Additional Pay, Taxes, Garnishments, W2
- *Benefits*: Health, Life, Pension, Vacation, Disability, Beneficiaries/Dependents

Finance Content

- *General Ledger*: Journals, Accounts, Ledgers, Funds
- *Purchasing*: Receivers, Requisitions, Purchase Orders, Distributions, Vendors, Buyers
- *Payables*: Vouchers, Payments
- *Banking*: Banks, Bank Balances
- *Project Costing*: Project, Activities, Resources
- *Billing*: Billing Header/Line, Customer

Finance Content, cont.

- *Asset Management*: Assets, Books, Retirements, Asset Depreciation
- *Contracts*: Header/Detail, Milestones, Prepaid
- *Receivables*: Payments, Collections, Customers
- *Grants*: Proposal, Negotiation, Purpose, Award, Budget Information, Person, Advisor, Collaboration, Project, Publication
- *Expenses*

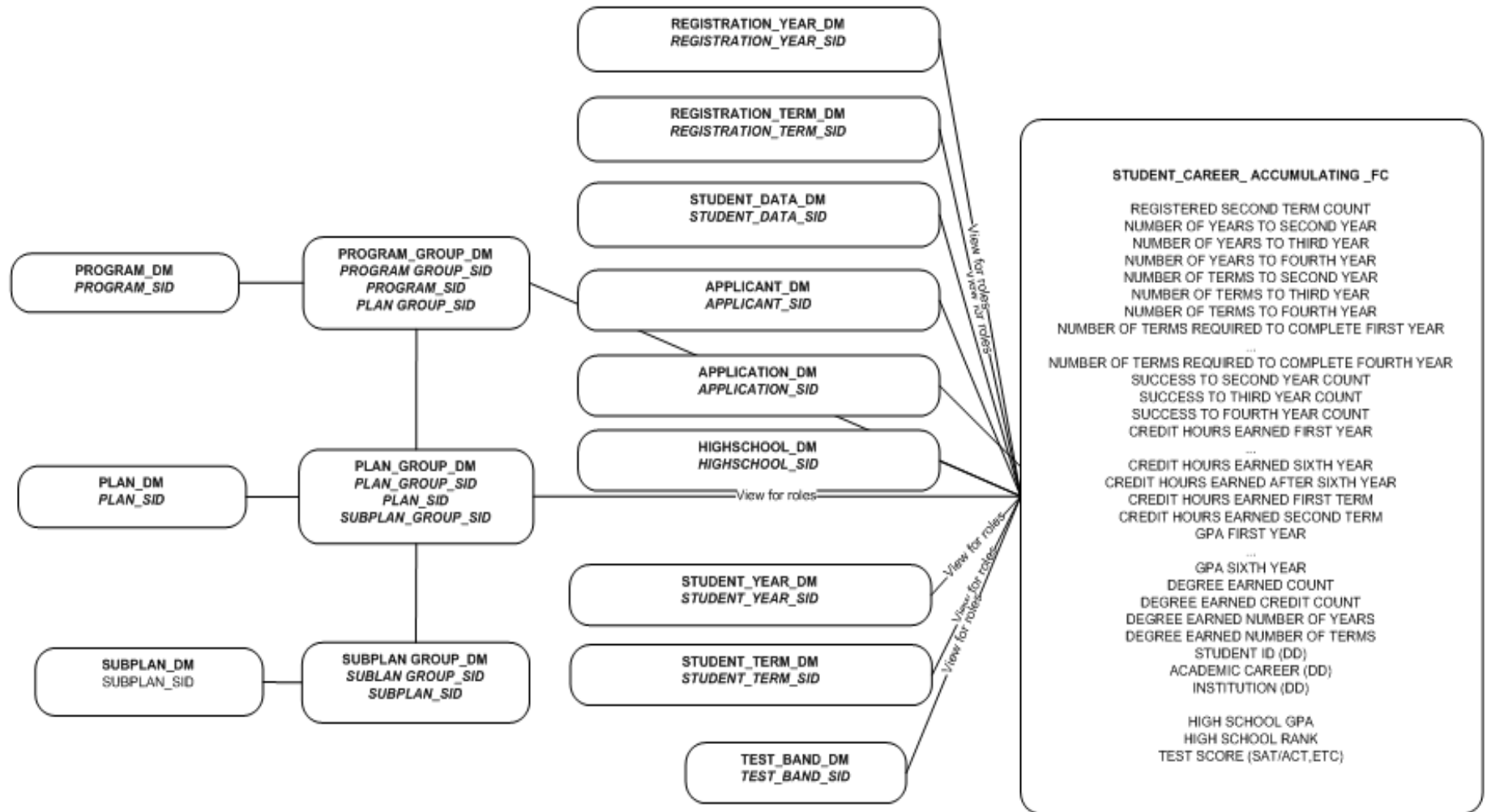
Student Content

- *Student Records*: Academic Structure, Course/Class, Enrollment Management, Grades, Transfer Credit, Athletics, Faculty Workload, Honors, Academic Standing, Student Milestones, Degrees, Retention Rates and Persistence
- *Campus Community*: Student Bio/Demo Data, Comments, Communications, Checklists, Residency Reporting, Student Groups, Committees, Events, Service Indicators

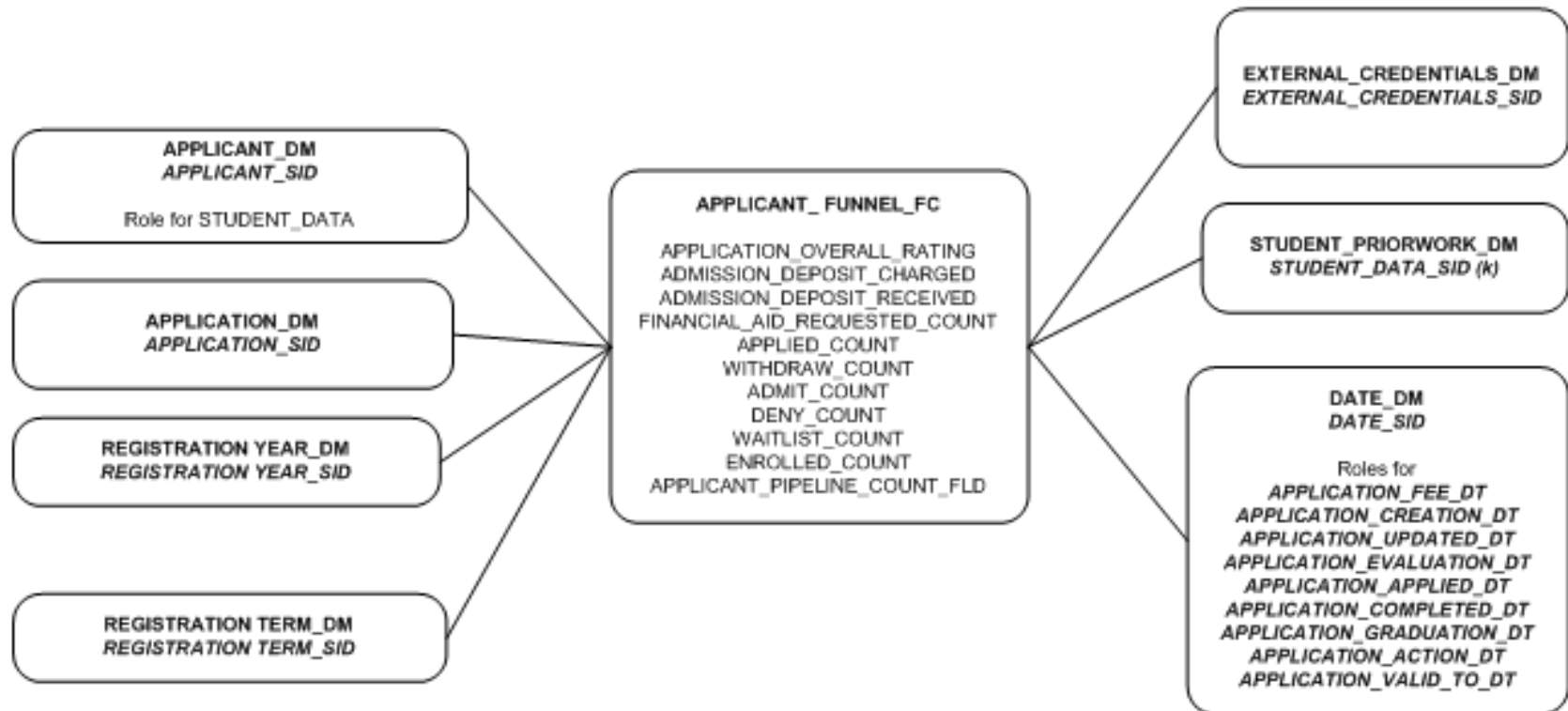
Student Content, cont.

- *Admissions*: Prospects, Recruitment, Applications, Test Scores, Admissions Materials, Admissions Funnel, Evaluation, High Schools
- *Student Financials*: Financial Aid Disbursements, Student Accounts, Billing, Payments, Refunds, GL Interface, Items, Third Party Payments, Cashiering
- *Financial Aid*: General FA Setup, ISIR/ Institutional Applications, Budgets, Packaging, Awarding, Loans, Fee waivers, Fin Aid by Student Characteristics

Example – Student Career Accumulation



Example – Applicant Funnel



Custom 10th Day Snapshot

			PROG_EFFDT, EFFSEQ = PROG_EFFSEQ, ACAD_PLAN = 'DEAN SCHLR')
ACADEMIC_LOAD	PS_STDNT_CAR_TERM	ACADEMIC_LOAD	EMPLID, ACAD_CAREER, INSTITUTION = 'UOD01', STRM = TERM
DERIVED_ACADEMIC_LOAD			<p>{NOTE: FOR CODING, IGNORE COMMENTS IN BRACKETS - THESE ARE FOR CLARIFICATION ONLY}</p> <p>{ADMIN CLASS} IF EXISTS (SELECT EMPLID FROM PS_STDNT_ENRL WHERE PS_STDNT_ENRL.STRM = ACADEMIC_TERM AND PS_STDNT_ENRL.ACAD_CAREER = ACAD_CAREER WHERE STDNT_ENRL.STRM = PS_CLASS_TBL.STRM AND PS_STDNT_ENRL.CLASS_NBR = PS_CLASS_TBL.CLASS_NBR AND PS_CLASS_TBL.SUBJECT = 'ADMIN') THEN 'F' ELSE</p> <p>{UNIV CLASS} IF EXISTS (SELECT EMPLID FROM PS_STDNT_ENRL WHERE PS_STDNT_ENRL.STRM = ACADEMIC_TERM AND PS_STDNT_ENRL.ACAD_CAREER = ACAD_CAREER WHERE STDNT_ENRL.STRM = PS_CLASS_TBL.STRM AND PS_STDNT_ENRL.CLASS_NBR = PS_CLASS_TBL.CLASS_NBR AND PS_CLASS_TBL.SUBJECT = 'UNIV' AND (PS_CLASS_TBL.CATALOG_NBR LIKE '55%' OR PS_CLASS_TBL.CATALOG_NBR LIKE '35%')) THEN 'F' ELSE</p> <p>{GRAD SUSTAINER} IF GRAD_SUSTAINER IN ('DS', 'MT', 'MN') THEN 'F' ELSE</p> <p>{FALL/SPRING ALL OTHERS} IF SUBSTR(STRM,4,1) IN ('3', '8') (i.e. TERM = Spring or Fall) THEN (all indented c&cs fall within this 'IF')</p> <p style="padding-left: 40px;">IF ACAD_CAREER='GRAD' and CUR_REGISTERED_HOURS < 9 AND CUR_REGISTERED_HOURS > 0 THEN 'P' ELSE</p> <p style="padding-left: 40px;">IF ACAD_CAREER='GRAD' and CUR_REGISTERED_HOURS >= 9 THEN 'F' ELSE</p> <p style="padding-left: 40px;">IF ACAD_CAREER='UGRD' and CUR_REGISTERED_HOURS < 12 AND CUR_REGISTERED_HOURS > 0 THEN 'P' ELSE</p> <p style="padding-left: 40px;">IF ACAD_CAREER='UGRD' and CUR_REGISTERED_HOURS >= 12 THEN 'F'</p> <p>{WINTER/SUMMER ALL OTHERS} ELSE IF SUBSTR(STRM,4,1) IN ('1','5') AND CUR_REGISTERED_HOURS > 0 THEN 'F' {ANYTHING ELSE}</p> <p>ELSE IF CUR_REGISTERED_HOURS = 0 then 'N' ELSE 'X'</p>
DUAL_CAREER_COUNTER			'1' IF ACAD_CAREER = PRI_CAREER (SEE TECHNICAL NOTES); 0 OTHERWISE

COM_CFA	PS_STDNT_TEST_TERM	COM_CFA	EMPLID, ACAD_CAREER = ACAD_CAREER, INSTITUTION = UOD01, STRM = TERM
HIGH SAT READING	PS_STDNT_TEST_COMP	SCORE	EMPLID, TEST_COMPONENT=VERB and TEST_ID=HIGHSAT
HIGH SAT MATH	PS_STDNT_TEST_COMP	SCORE	EMPLID, TEST_COMPONENT=MATH and TEST_ID=HIGHSAT
HIGH SAT WRITING	PS_STDNT_TEST_COMP	SCORE	EMPLID, TEST_COMPONENT=WRTG and TEST_ID=HIGHSAT
HIGH SAT TOTAL	PS_STDNT_TEST_COMP	SCORE	EMPLID, TEST_COMPONENT=TOTAL and TEST_ID=HIGHSAT
ATHL_CUR_PARTICIPANT1	PS_ATHL_PART_STAT	CUR_PARTICIPANT	EMPLID, first sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
ATHL_NCAA_ELIGIBLE1	PS_ATHL_PART_STAT	NCAA_ELIGIBLE	EMPLID, first sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
ATHL_SPORT_CODE1	PS_ATHL_PART_STAT	SPORT	EMPLID, first sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
ATHL_PARTIC_CODE1	PS_ATHL_PART_STAT	ATHL_PARTIC_CD	EMPLID, first sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
ATHL_CUR_PARTICIPANT2	PS_ATHL_PART_STAT	CUR_PARTICIPANT	EMPLID, second sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
ATHL_NCAA_ELIGIBLE2	PS_ATHL_PART_STAT	NCAA_ELIGIBLE	EMPLID, second sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
ATHL_SPORT_CODE2	PS_ATHL_PART_STAT	SPORT	EMPLID, second sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
ATHL_PARTIC_CODE2	PS_ATHL_PART_STAT	ATHL_PARTIC_CD	EMPLID, second sport (sorted alphabetically), max(PS_ATHL_PART_STAT.EFFDT)
GRAD_SUSTAINER			<p>IF ACAD_CAREER <> 'GRAD' THEN 'N' ELSE IF EXISTS (SELECT FROM PS_STDNT_ENRL for this EMPLID, STRM, ACAD_CAREER WHERE INSTITUTION = 'UOD01' AND PS_STDNT_ENRL_STATUS = 'E' AND PS_STDNT_ENRL.CLASS_NBR = PS_CLASS_TBL.CLASS_NBR AND PS_CLASS_TBL.SUBJECT = 'UNIV' AND PS_CLASS_TBL.CATALOG_NBR = '999' AND PS_CLASS_TBL.CLASS_SECTION = '011' (IGNORE PS_CLASS_TBL KEYS: CRSE_ID,CRSE_OFFER_NBR, STRM,SESSION_CODE,CLASS_SECTION)) THEN 'DS' ELSE IF EXISTS (SELECT FROM PS_STDNT_ENRL for this EMPLID, STRM, ACAD_CAREER WHERE INSTITUTION = 'UOD01' AND PS_STDNT_ENRL_STATUS = 'E' AND PS_STDNT_ENRL.CLASS_NBR = PS_CLASS_TBL.CLASS_NBR AND PS_CLASS_TBL.SUBJECT = 'UNIV' AND PS_CLASS_TBL.CATALOG_NBR = '899' AND PS_CLASS_TBL.CLASS_SECTION = '011' (IGNORE PS_CLASS_TBL KEYS: CRSE_ID,CRSE_OFFER_NBR, STRM,SESSION_CODE)) THEN 'MT' ELSE IF EXISTS (SELECT FROM PS_STDNT_ENRL for this EMPLID, STRM, ACAD_CAREER WHERE INSTITUTION = 'UOD01' AND PS_STDNT_ENRL_STATUS = 'E' AND PS_STDNT_ENRL.CLASS_NBR = PS_CLASS_TBL.CLASS_NBR AND PS_CLASS_TBL.SUBJECT = 'UNIV' AND PS_CLASS_TBL.CATALOG_NBR = '895' AND PS_CLASS_TBL.CLASS_SECTION = '011' (IGNORE PS_CLASS_TBL KEYS: CRSE_ID,CRSE_OFFER_NBR, STRM,SESSION_CODE)) THEN 'MN' ELSE 'N'</p>
COUNT_FIELD			1

SEC_PROG_EFFDT			EFFDT from secondary PS_ACAD_PROG select above
SEC_PROG_EFFSEQ			EFFSEQ from secondary PS_ACAD_PROG select above
SEC_MAJOR1	PS_ACAD_PLAN	ACAD_PLAN	WHERE PS_ACAD_PLAN.EMPLID = EMPLID, PS_ACAD_PLAN.ACAD_CAREER = ACAD_CAREER, STDNT_CAR_NBR = SEC_STDNT_CAR_NBR (see above), EFFDT = SEC_PROG_EFFDT, EFFSEQ = SEC_PROG_EFFSEQ, PLAN_SEQUENCE = 10
SEC_CONCENTRATION1	PS_ACAD_SUBPLAN	ACAD_SUBPLAN	WHERE PS_ACAD_SUBPLAN.EMPLID = EMPLID, PS_ACAD_SUBPLAN.ACAD_CAREER = ACAD_CAREER, PS_ACAD_SUBPLAN.STDNT_CAR_NBR = SEC_STDNT_CAR_NBR(see above), EFFDT = SEC_PROG_EFFDT, EFFSEQ = SEC_PROG_EFFSEQ, PS_ACAD_SUBPLAN.ACAD_PLAN = SEC_MAJOR1 (above)
SEC_ACADEMIC_ORG	PS_ACAD_PLAN_OWNER	ACAD_ORG	Use SEC_MAJOR_1 field above as plan: PS_ACAD_PLAN_OWNER.INSTITUTION = 'UOD01', PS_ACAD_PLAN_OWNER.ACAD_PLAN = SEC_MAJOR_1, MAX(PS_ACAD_PLAN_OWNER.EFFDT) <= <u>CurrentDate</u>
CLASSIFICATION	PS_STDNT_CAR_TERM	ACAD_LEVEL_BOT	EMPLID, ACAD_CAREER, INSTITUTION = 'UOD01', STRM = ACADEMIC_TERM
RESIDENCY	PS_RESIDENCY_OFF	RESIDENCY	EMPLID, ACAD_CAREER, MAX(EFFECTIVE_TERM) <= ACADEMIC_TERM
BIRTHDATE	PS_PERSON	BIRTHDATE	
AGE			Derive based on BIRTHDATE
GENDER	PS_PERS_DATA_EFFDT	SEX	EMPLID, MAX(EFFDT) <= <u>CurrentDate</u>
ETHNICITY	PS_DIVERS_ETHNIC	ETHNIC_GRP_CD	EMPLID, PS_DIVERS_ETHNIC.PRI_INDICATOR = 'Y'
CITIZEN_STATUS_USA	PS_CITIZENSHIP	CITIZENSHIP_STATUS	EMPLID, DEPENDENT_ID = ' ', COUNTRY = 'USA'
NATIVE_COUNTRY	PS_CITIZENSHIP	COUNTRY	EMPLID, DEPENDENT_ID = ' ', CITIZENSHIP_STATUS = '1'
VISA_TYPE	PS_VISA_PMT_DATA	VISA_PERMIT_TYPE	EMPLID, DEPENDENT_ID = ' ', COUNTRY = 'USA', MAX(EFFDT) If multiple rows exist for the same EFFDT, select VISA_PERMIT_TYPE = 'F1'; if no F1 exists, select 'J1'; if no J1, select first VISA_PERMIT_TYPE encountered.
INTERNATIONAL_STUDENT_FLAG			IF EXISTS PS_CITIZENSHIP.COUNTRY= 'USA' AND PS_CITIZENSHIP.CITIZENSHIP_STATUS IN ('4', '8', 'N')) then 'Y' ELSE 'N'
TERM_ACTION_REASON	PS_ADM_APPL_PROG	PROG_REASON	EMPLID, ACAD_CAREER, MAX(EFFDT), MAX(EFFSEQ) (IGNORE STDNT_CAR_NBR, ADM_APPL_NBR, APPL_PROG_NBR) WHERE PROG_STATUS = 'AC' AND ADMIT_TERM = STRM IF NO ROW FOUND, DEFAULT = 'CO' (Note: 'admit term=STRM' logic applies only to this field and not to ENTRY_ACTION, ENTRY_TERM)
ENTRY_TERM	PS_ADM_APPL_PROG	ADMIT_TERM	SELECT FOR THIS EMPLID, ACAD_CAREER, MAX(EFFDT), MAX(EFFSEQ), WHERE PROG_STATUS = 'AC' (IGNORE STDNT_CAR_NBR, ADM_APPL_NBR, APPL_PROG_NBR) Use the keys (EMPLID, ACAD_CAREER, STDNT_CAR_NBR, ADM_APPL_NBR) from the row selected to join to the parent record (PS_ADM_APPL_DATA) to get the corresponding PS_ADM_APPL_DATA.ADMIT_TYPE (see next row)

Metadata

- Easy, secure access
- Web-based system
- Open source
- Easily generate metadata reports
- Easily updateable

BI Demo

Q&A

Questions & Answers

To Contact Us

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