BUSINESS RULES

Business rules describe the operations, definitions and constraints that govern the data model. As opposed to the ERD, they are made using regular English sentences so that a non-technical stakeholder can decipher information about the data model without notation knowledge.

The business rules that govern our data model are as follows:

1. A student must have one department. A STUDENT has StudentID, FirstName, LastName, DateofBirth, Gender, Email, Phone, Address, EnrollmentDate. A department must have many students.

2. Student may perform many registrations. A REGISTRATION includes RegistrationID, Semester, Year, Section Id, StutendID. A registration must be performed by at least one student.

3. A section must mandatorily have many registrations. A registration has at least one section. A section includes SectionID, SectionNum, CourseId, FacultyID, Semester and Year.

4. A registration may belong to many EVALUATIONS. An evaluation mandatorily belongs to one registration. An evaluation contains EvaluationID, ObtainedMarks, AssessmentID, RegistrationID.

5. An evaluation must have one assessment. An Assessment must have many evaluations. Assessments contain AssesmentsID, AssessmentName, TotalMarks, SectionID and COID. An assessment must contain one section. A section contains one or many assessments.

6. An assessment must map with one CO’s. A CO’s maps with one or many assessments. A CO’s includes COID, CourseID and PLOID. A CO must contain one Course. A Course contain one or many CO’s. A course may have many prerequisites. A course must affiliate one mark distribution. A mark distribution may affiliate many courses. A Mark Distribution includes DistID, A, A-, B+, B, B-, C+, C, C-, D+, D, ThresoldMarks.

7. A CO’s must map with one PLO’s. A PLO’s must map with one or many CO’s. PLO includes PLOID, PLONum, Details, ProgramID.

8. A PLO must contain one program. A program contains one or many PLO’s. A program has ProgramID, ProgramName, DepartmentID. A program must contain one or many courses. A Course must contain one course.

9. A program must belong to one department. A department must belong to one or many programs. A department must contain DepartmentID, DepartmentName, SchoolID.

10. A department must contain one school. A School must contain one or many departments. A school includes SchoolID, SchoolName.

11. An employee has four sub-types (Dean, Department Head, Faculty, VC). An employee includes EmployeeID, FirstName, LastName, DateofBirth, Gender, Email, Phone, Address, EmployeeType.

12. A school must run by one or many Dean. A dean must run one school. A Dean has SchoolID, StartDate, EndDate.

13. A Department must manage one or many Department head. A department head must manage one department. A department head includes DepartmentID, StartDate, EndDate.

14. A Faculty must have one Department. A department must have one or many Faculties. A Faculty includes DepartmentID, Rank, JoinDate. A faculty may teach many sections. A section must be taught by one faculty.

15. A course outline belongs to exactly one section. A section must have exactly one course outline. A COURSE\_OUTLINE includes courseOutlineID, sectionID, contactHours, courseDescription, objective, content, refMaterials, courseType, courseTitle, prerequisiteCode, creditValue.

16. A Course outline must have exactly one CLO Matrix. A CLO matrix belongs to exactly one course outline. A CLO\_MATRIX includes clo\_MatID, cloNum, coDescription, ploAssessed, correlation, courseOutlineID, c, p, a, s.

17. A Lesson Plan Strategy must have exactly one Evaluation strategy. An Evaluation strategy must have exactly one Lesson Plan Strategy .A LESSON\_PLAN\_STRATEGY includes lPSID, week, topic, learningStrategy, assessmentStrategy, correspondingClo, courseOutlineID.

18. An exam has exactly one evaluation. An Evaluation for an exam is done exactly once. An exam belongs to exactly one section. An EXAM includes examID, examName, sectionID. A section must have one or many exams.

19. An exam must have one or many questions. Every question must belong to exactly one exam. A QUESTION includes questionID, questionDetails, marksPerQuestion, questionNum, difficutltyLevel, examID, coNum. A Question is answered exactly once. An answer has exactly one question.

20. A PO belongs to exactly one program A program must have one or many PO.PO includes poID, poNum, programID. A PO must belong to one or many CO. A CO must have exactly one PO.

21. A student course performance evaluation is done for registration exactly once. A registration has student course performance evaluation done exactly once. A registration has exactly one evaluation. An Evaluation has exactly one registration.