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 Enrollments. An Enrollment includes RegistrationID, Semester, Year, Section Id, StutendID. An specific Enrollment must be performed by one student.

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

4. Enrollment may belong to many EVALUATIONS. An evaluation mandatorily belongs to one enrollment. 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 COs includes COID, CourseID and PLOID. A CO must contain one Course. A Course contains 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 Course offered by a Program and has CO1, CO2, CO3, CO4 mapped with PLOs.

Course has CourseID, CourseName, ProgrameID.

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

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

12. A User has Three sub-types (Student, Faculty, Admin). A User includes userID, FirstName, LastName, DateofBirth, Gender, Email, Phone, Address, role.

12. A school must run by only one Dean/Admin. A dean/Admin must run one school. A Dean/Admin 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 facultyID, DepartmentID. A faculty may teach many sections. A section must be taught by one faculty.

15. A PO belongs to exactly one program A program must have one or many PLOs. PLO includes ploID, poNum, details, programID. A PO must belong to one or many CO. A CO must have exactly one PO.

16. A student course performance evaluation is done for Enrollment exactly once. An Enrollment has student course performance evaluation done exactly once. Enrollment has one or many evaluation. An Evaluation has exactly one Enrollment.

17. A CourseGPA is assigned to a student of a corresponding course which has valid section number. A CourseGPA has StudentID, CourseID, Section, Semester, Year and Grade