Logical Model (Relational model)

Primary Key - **Bold and Underlined**
Foreign Key – *Italicized and Dotted lined*

- USER (**User_ID**, Phone_number, Email_Id)

NOTE: This table captures the details of users who are using the app. It stores unique identifier id, phone number and email id.

- DISCUSSION_FORUMS (**Id**, Name, Type)

NOTE: This tables stores all the discussion forum happening in the app. It has unique identifier id, discussion forum name and discussion forum type.

- COURSES (**Id**, **Course_name**, Professor_name, Semester, Series, Timing, Rating)

NOTE: This tables stores all the courses that are offered by university. It has unique identifier id, course name, professor name, semester in which it was offered, which series, timing of course and rating.

- DEPARTMENT (**Id**, Name, Website)

NOTE: This tables stores all the departments in the university.
It has unique identifier id, name, website.

- PROGRAM (**Id**, Type, Program, Name, Duration, Number_of_students)

NOTE: This tables stores all the programs offered by the university.
It has unique identifier id, type, name, duration, number of students who are taking the program.

- ALUM(**Alum_Id**, Company, Job_title, Years_of_experience, Batch, Age, Alum_name, *User_Id*)

NOTE: This tables stores all alumn of the university. It is a subclass of user superclass.
It has unique identifier alum id, company, job title, years of experience, batch, age, alum name and user_id which is derived from user class.

- UNIVERSITY (**ID**, Name, Location, *User_Id*)

NOTE: This tables stores all universities who are part of apps network. It is subclass of user.
It has unique identifier id, name, location, and it derives user_id from user superclass.

- ORGANIZATION (**ID**, Name, Type, Location, *User_Id* , *Uni_Id*)

NOTE: This tables stores all organization in the university. It is subclass of user.
It has unique identifier id, name, type, location, and it derives user_id from user superclass.
It is dependent on university and borrows uni_id from the university id attribute.

- STUDENT (**Std_Id**, Batch, Type, Age, Std_Name, *User_Id*)

NOTE: This tables stores all students who attend or will be attending the university. It is subclass of user.
It has unique identifier std id, name, age, batch, and student type whether graduate/undergrad/phd, and it derives user_id from user superclass.

- ITEMS_SOLD (**Id**, Name, Price, Email_Id, Phone_number, *Std_Id*)

NOTE: This table captures all the items sold by students with unique identifier id for item.
It is dependent on students selling. It borrows std_id, email_id, phone number from student table.
Prices sold can be null or zero.

- ITEMS_BOUGHT (**Id**, Name, Price, Email_Id, Phone_number, *Std_Id*)

NOTE: This table captures all the items bought by students with unique identifier id for item.
It is dependent on students buying. It borrows std_id, email_id, phone number from student table. It has a unique identifier id.
Prices bought can be null or zero.

- UNIVERSITY_PROG_DEPT (*Uni_Id, Program_Id, Dept_Id,*)

NOTE: This relation contains three foreign keys Uni Id borrowed from id attribute of university, deptid borrowed from id attribute of deparment and program id borrowed from id attribute of program which together act as the primary key of relation.
It represents which university and department the programs belong to.

- ALUMN_STUDIED_PROG (*Uni_Id , Alum_Id, Program_Id, Dept_id*)

NOTE: This relation contains four foreign keys uni id borrowed from id attribute of university, alum id borrowed from id attribute of alum, dept id borrowed from id attribute of department and program id borrowed from id attribute of program which together act as the primary key of relation.
It represents which program, in which department of which university alum attended.

- PROG_HAS_COURSES (*Course_Id, Program_Id*)

NOTE: This relation contains two foreign keys course id borrowed from id attribute of course and program id borrowed from id attribute of program as the primary key of relation.
It represents which program does course belong to.

- STUDENTS_IN_DISCUSSION (*discussion_Id*, *StdId*, *AdminStdId*)

NOTE: This relation contains three foreign keys discussion id borrowed from id attribute of discussion, student id borrowed from id from student and admin std id which is id of student who admins the discussion forum from id attribute of student together acting as the primary key of relation.
It represents students who are participating discussion forum.

- STD_HAS_COURSES (*Course_Id*, *StdId*)

NOTE: This relation contains two foreign keys course id borrowed from id attribute of course, student id borrowed from id from student together acting as the primary key of relation.
It represents who among current students are taking which courses.

- STD_DEPT (*Uni_id*, *Program_id*, *Dept_Id*, *StdId*)

NOTE: This relation contains four foreign keys uni id borrowed from id attribute of university, program id borrowed from id attribute of program, dept id borrowed from id attribute of department, student id borrowed from id attribute of student together acting as the primary key of the relation.
It represents which program and department of which university does student belong to.

- ALUM_MENTOR_STD (*Alum_Id*, *Std_Id*)

NOTE: This relation contains two foreign keys alum id borrowed from id attribute of alum, student id borrowed from id from id attribute of student together acting as the primary key of relation.
It represents the students mentored by alum.