The **User** entity contains the login information of every user on our platform. The Username of the user is unique, self-created, and serves as their display name when posting reviews. We primarily need to know the Username in order to uniquely identify each user. In addition, users need a NetID to ensure that the user attends the school. However, users who don't have a NetID can still access the content as a guest. These guests will be assigned a unique, randomly generated username (which serves as a temporary username until the user connects their account with their NetID) and will have an IsGuest attribute of True.

Users
- Username
- NetID
- Password
- IsGuest

Here, we assume that **Users** can **Write** any number of **Reviews**, but each **Review** can only have be **Written** by one **User**.

1..1 — **Writes** — 0..*

FK Reviews.Username to Users.Username

Reviews
- ReviewID
- Rating
- Comment
- IsRecommended
- RequiresTextbook
- Upvotes
- Downvotes

The **Review** entity has a cardinality of 11 and contains all the reviews that were provided by the users of our application. Each review is uniquely identified by a randomly generated ReviewID. The remanining attributes are the users own opinions on the course and instructor. The Rating will be given on a scale of 1-5, with 5 being the best. Comments are the users own words on how their overall experience with the course was. The IsRecommended attribute is either True or False, with True being that the user would recommend the course to others. The RequiresTextbook attribute is a boolean for whether or not a textbook was required in the course. Upvotes and Downvotes are integers that are similar to likes and dislikes in that a user can upvote or downvote reviews, thereby giving users a better idea of whether a review is accurate or not.

A **Review Corresponds To** a single **Instructor**, but an **Instructor** can have any number of **Corresponding Reviews**

We assume that users are authoring reviews about their experience in a particular instance of the course taught by a particular professor, and not an aggregate review over multiple professors in the course

FK Reviews.PK to Courses.PK

A **User** (student) is **Enrolled** in any number of **Instructors** courses, and an **Instructor** has any number of **Users** (students) **Enrolled** in their courses.

An **Instructor** teaches any number of **Enrolled Courses** and a particular instance of a course can have multiple **Instructors Enrolled** to teach it. We also assume that courses might share the same CRN and same semester but not the same instructor.

A **User** (student) can be **Enrolled** in any number of **Courses**, and **Courses** can have any number of **Students Enrolled** in them.

We assume that a **User** (student) **Enrolled** in a particular course will obtain a GPA in that particular **Course**.

We assume that YearTerm is the year and term the student/instructor/course combinations are associated with. This helps uniquely idenitify similar combinations that may occur as a result of a student retaking a course, a course changing its CRN, and other factors

Enrolled

- YearTerm
- GPA

0..* — Enrolled — 0..*

Instructor Corresponds To 0..* — 0..*

Course Corresponds To 0..* — 1..1

We assume that a **Review Corresponds To** a single **Course**, but a **Course** can have any number of **Corresponding Reviews**

The **Instructors** entity contains information on the instructor. Specifically, the NetID for unique identification purposes, the name of the instructor, and the DeptName of the **Department** that they belong to

Instructors
- NetID
- Name

0..* — **Instructor Belongs to** — 1..1

We assume that all **Instructors Belongs To** one **Department** only and that a **Department** can have any number of **Instructors Belonging To** it.

Departments
- DeptAbv
- DeptName
- Location
- URL
- PhoneNumber

1..1 — **Course Belongs to** — 0..*

We assume that all **Courses Belongs To** one **Department** only and that a **Department** can have any number of **Courses Belonging To** it.

Courses
- CRN
- CourseName
- CourseNumber
- Description

This **Courses** entity contains information on courses within a department, and is uniquely identified by the CRN, YearTerm. It also contains Department, CourseName and CourseNumber.

We assume that all **Courses** must belong to a particular **Department**

The **Departments** entity contains DeptName as the unique identifier (CS, ACES, etc.). It provides descriptive information about the department such as their location, the URL to their department page, and their phone number.