

UNIVERSITY PERFORMANCE METRICS EVALUATOR

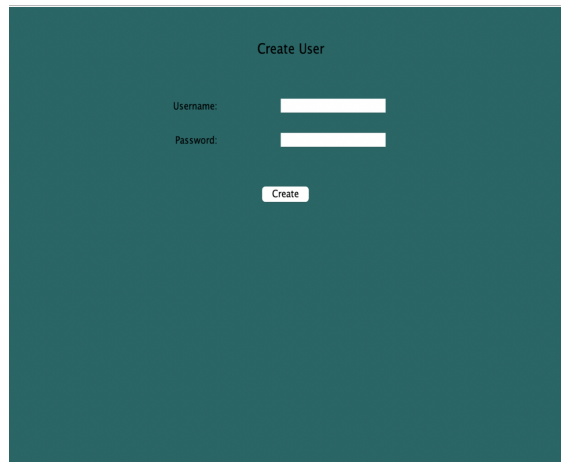
Model Purpose:

Universities are integral academic, social, and cultural building blocks of society. As a part of this proposal, a University ranking system has been devised based on selected colleges and departments. This model takes into account the student feedback, professor ratings, employment rates of students post-graduation, diversity index, and gender ratio of students studying in the University to give a cumulative ranking or performance metrics. This ranking system can be utilized by Administrators, Directors, and Deans for assessment, by potential students for scouting colleges as well as by regulators or auditors. The performance metrics that we have selected are not subjective and do not depend on external factors like industry, domain, etc.

Business Rules:

- Only an authorized user/administrator can access the system.
- Only a user with administrator access will be able to access Alumni, Faculty directory for creation, updating, or deletion operations.
- Users will be required to select university, course, department to view dashboard, charts, ranking, and other performance metrics
- Students will be required to declare ethnicity and gender.
- All alumnus will be required to have more than or equal to 1 year of work experience from their starting date to be a part of this model.
- Alumni students will be required to fill feedback for every professor they have taken a course under.
- Alumni students will be required to provide a salary range for the last 5 years from their graduation period.

User Interface:



Create User

Username:

Password:

Create

User Login

Username :

Password:

Login

Reset

Forgot Password?

University Ranking Dashboard

University : Northeastern University

College : College of Engineering

Department: Information Systems

Top 5 Professors

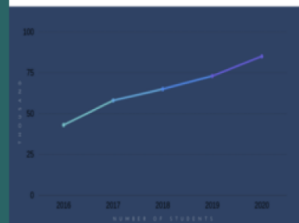
Prof.John Doe
Prof.Manuel Montrond
Prof.Kal Bugrara
Prof.Jane Doe
Prof.Nik Brown

Ranking

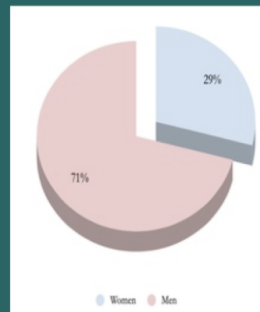
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Employment Trends

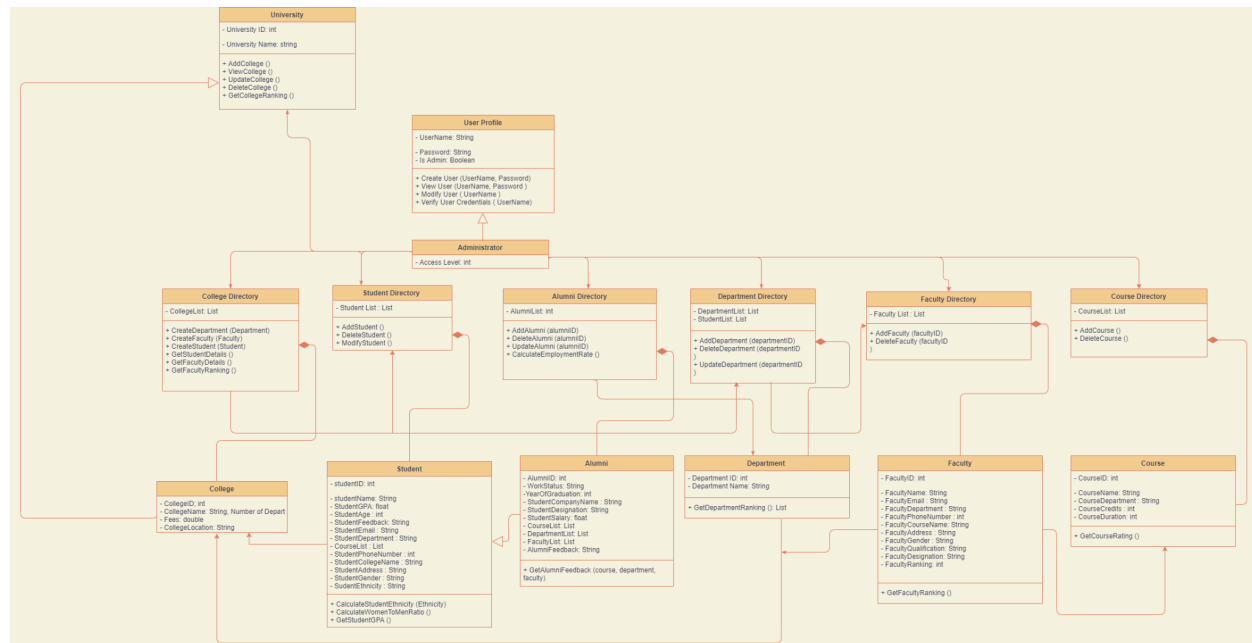
PAST 5 YEAR EMPLOYMENT TRENDS



Gender Ratio



OBJECT CLASS DIAGRAM:



Alumni:

- GetAlumniFeedback(course, department, faculty)
 - This will get feedback about the different courses that the alumni had taken in their duration of the graduate school which has directly helped him to get a job.

AlumniDirectory:

- AddAlumni()
 - This method is used to add specific alumni to the alumni directory
- DeleteAlumni()
 - This method is used to delete specific alumni to the alumni directory
- UpdateAlumni()
 - This method is used to update or edit specific alumni details in the alumni directory
- CalculateEmployeeRate()
 - This method is used to get the details of the working alumni based on their department

University:

- AddCollege()
 - This method is used to create the college under a university
- ViewCollege()
 - This method is used to view a college at the university
- UpdateCollege()
 - This method is used to update the details of a college under the university.
- DeleteCollege()

- This method is used to delete a college from a university.
- GetCollegeRanking()
 - This method is used to calculate the rank of the college based on the Department Ranking obtained from the getDepartmentRanking() class.

College Directory:

- CreateDepartment()
 - This method is used to create a department within the college and stores it in the Department directory
- CreateFaculty()
 - This method is used to create a Faculty for a college and stores it in the Faculty Directory
- CreateStudent()
 - This method is used to create a student and stores it in the Student directory
- GetStudentDetails()
 - This method will get the student details in the student directory
- GetFacultyDetails()
 - This method will get the faculty details from the faculty Directory.
- GetFacultyRanking()
 - With the student id, we will be able to assign each course they have taken with the particular faculty and as each course is ranked by using the student and alumni feedback received, the faculty who has been assigned for that course will also be ranked

Student Directory:

- AddStudent ()
 - This method will add a student to the Student directory
- DeleteStudent ()
 - This method will remove a student from the Student directory
- ModifyStudent ()
 - This method is used to update the student information from the Student directory

Student:

- GetStudentEthnicity ()
 - This method will store the ethnicity of the student
- CalculateWomenToMenRatio ()
 - This method calculates the ratio of women to men, based on the student's gender
- GetStudentGPA ()
 - This method is used to get the student GPA

Faculty Directory:

- AddFaculty ()

- This method will add a faculty to the faculty directory
- DeleteFaculty ()
 - This method will delete a faculty from the faculty directory

Course Directory:

- AddCourse
 - This will add the course to the course directory
- DeleteCourse
 - This will remove a course from the course directory

SEQUENCE DIAGRAM:

