

NORTHEASTERN UNIVERSITY

University Performance Management System

Our Team :

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REPORT

PROJECT OBJECTIVE –

The goal of this project is to develop a performance measurement system that will allow universities to assess the quality of education they provide to students.

ABSTRACT –

The objective of this project is to assess the university's performance by gathering feedback from students on courses, professors, and personal growth and feeding it into a system that will calculate the parameters on which the university should focus.

APPROACH –

In this system, there are three major components which are critical:

Student:

- Students will have access to a feedback form where he or she will provide feedback.
- Students will evaluate professors and courses, as well as provide professional information that will be used by the university to assess their performance.

Admin:

- Admin will have the privilege to add, update and delete professors and courses.
- Admin will be able to see the dashboard which will have processed data in graphical format.

Department:

- Students and other entities such as CourseCatalog, Transcript, Faculty, and others (all of which will be discussed later in the report) will provide input to the department entity, which will then transform the data into a relevant manner and deliver it to the dashboard.

FLOW –

1. Student will login using his/her credentials.
2. Student will fill feedback form and submit.
3. Admin will login using his/her credential.
4. Admin will be able to view Admin panel with Add, Update, Delete buttons and a view Dashboard buttons.
5. By clicking on Add, Update, Delete buttons Admin can modify professors and courses.
6. After clicking on ViewDashboard button, Admin must select a particular department from the List.
7. After selecting a department, Admin will be able to view department ranking, professor ranking, popular courses and industry trend.

ENTITIES

1. DEPARTMENT

Attributes:

-DepartmentName

Methods:

- +GetStudentInfoByWorkStatus() – This method sorts and returns student information based on their employment status.
- +viewStudentsbyCoursesTaken() – This method will list the students according to their selected courses.
- + calcProfessorRank() – This method uses data from students to calculate the professor's rank. and according to professors experience and courses taught by them.
- + getPopularCourses() – Method takes Student.rateCourse and total students opting for the specific course and calculate accordingly.
- + GetStudentInfo() – This method displays information on the students' data.
- + getFacultyInfotrmation() – This method takes input for the faculty data for the university.
- + getCourseInformation() – This method receives data for the course details .
- + getGPA() – this method accepts input for the GPA values for particular students.
- + calcIndustryTrend() – this method calculates the fields of industry trends available for students to select during their masters program.
- + calcDepartmentRank() – Method takes no of employed Students from Department Class and calculate the rank based on totalStudents/Employed Students ratio and average GPA.

2. COLLEGE

Attributes :

+Name

+Location

+ContactInfo

+DepartmentList<>

Method :

- + getDepartmentList()

3. COURSE CATLOG

Attributes:

+CourseName

+CourseDescription

+CourseStructure

Method :

- + GetCourseInformation()

4. TRANSCRIPTS

Attributes :

+CoursesTaken

+GPA

+Major

+YearofPassing

Method :

- + CalculateGPA()

5. STUDENT

Attributes :

+StudentId

+Name

+WorkStatus

+CareerLevel

+Company

+username

+password

+relevantCourses

Method :

- +rateProfessor()

- +rateCourse()

- +getCourseList

6. FACULTY

Attributes :

+FacultyName

+FacultyExperience

+CoursesTaught

7. LOGIN

Attributes :

+Username

+Password

Methods :

- +Validate()

8. ADMIN

Attributes :

+Username

+Password

Methods :

- +viewDashboard()
- +UpdateCourseCatalog()
- +AddProfessor()
- +AddCourses()
- +DeleteCourses()
- +DeleteProfessor()
- +updateProfessor()
- +updateCourse()

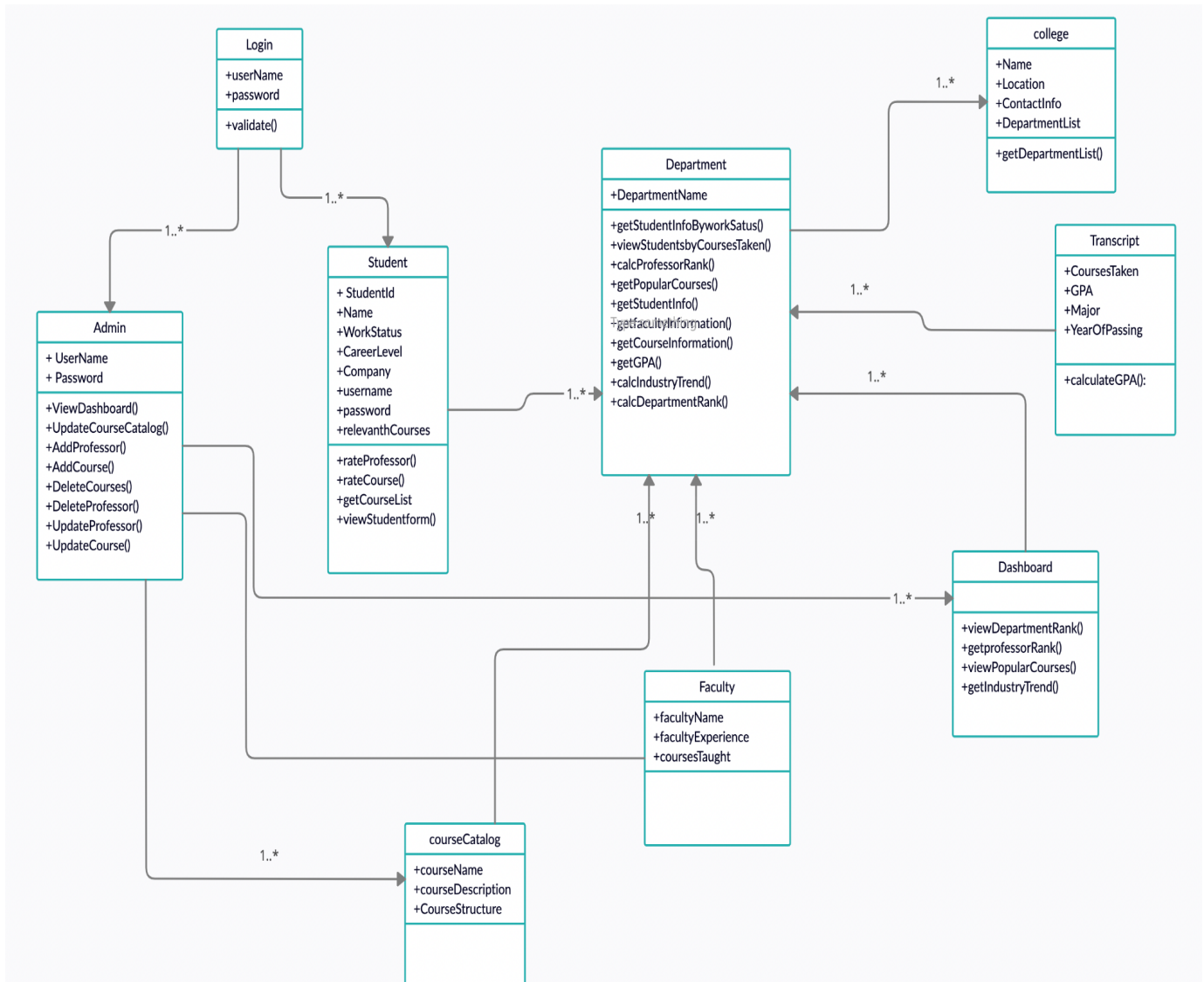
9. DASHBOARD

Methods :-

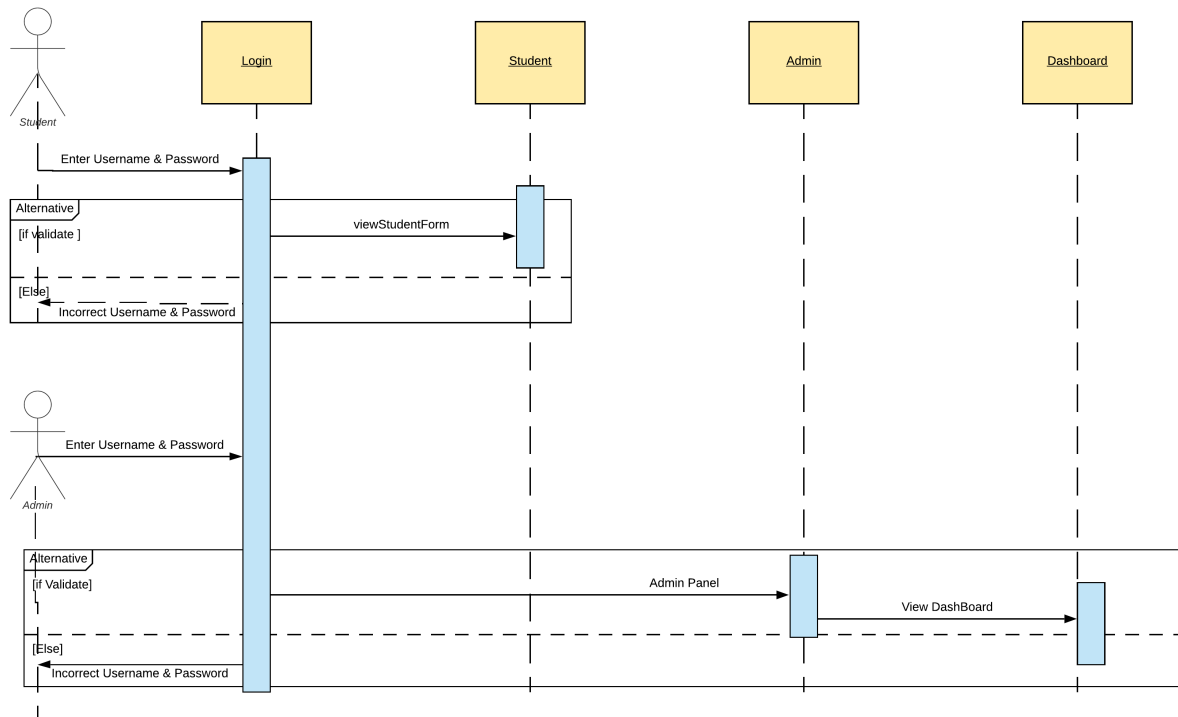
- +viewDepartmentRank()- return from department. calcDepartmentRank()
- +getProfessorRank() -return from department.calcProfessorRank()
- +viewPopularCourses() -return from department.getPopularCourses()
- +getIndustryTrend() – return from department.calcIndustryTrend()

DIAGRAMS

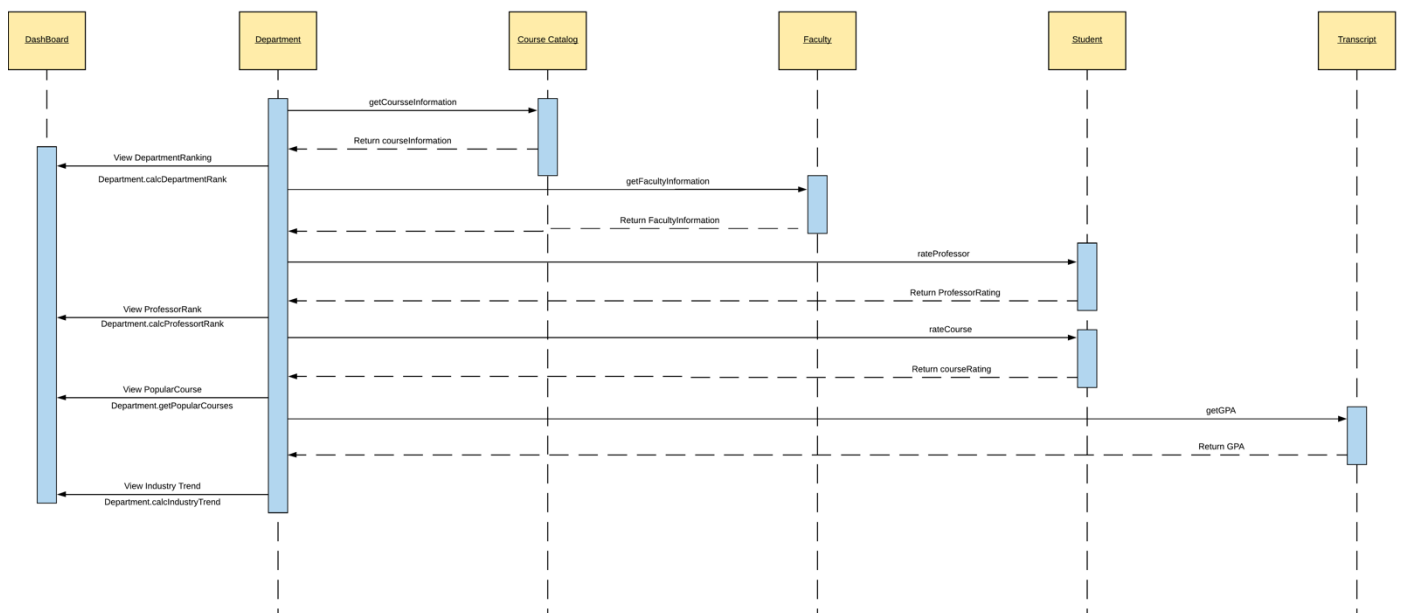
1) Object Model



2) Sequence Diagram 1

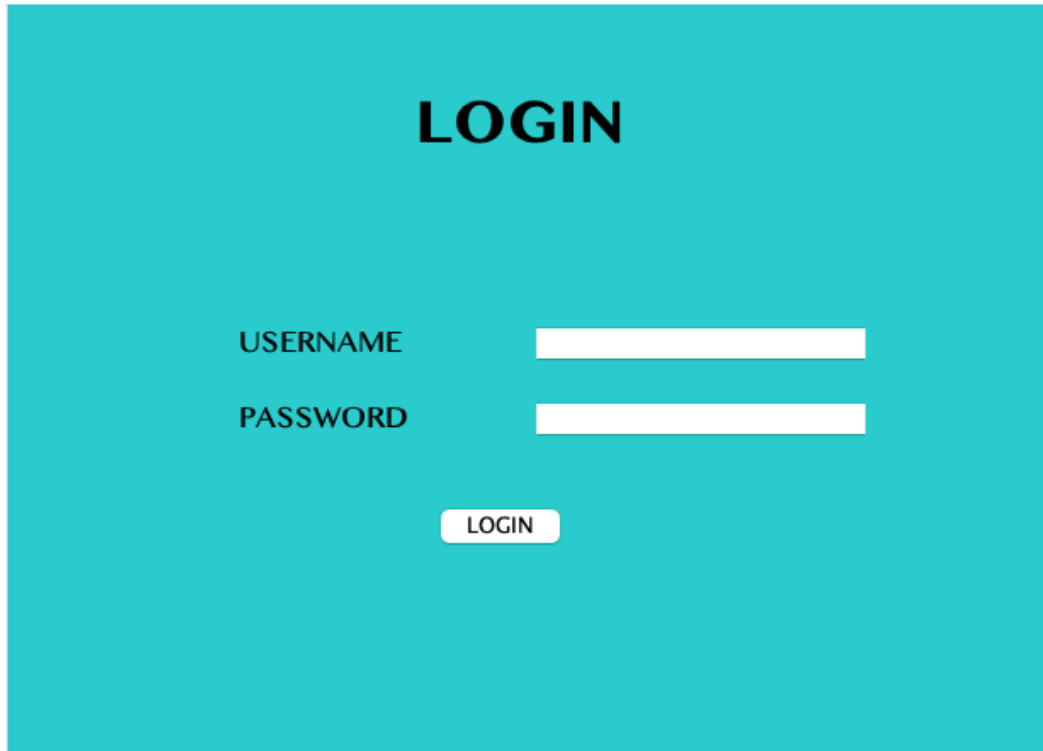


3) Sequence Diagram 2



USER INTERFACE

1) Login Page



A login page with a teal background. The word "LOGIN" is centered at the top in large, bold, black capital letters. Below it, the labels "USERNAME" and "PASSWORD" are positioned to the left of two white input fields. A white "LOGIN" button is centered below the input fields.

LOGIN

USERNAME

PASSWORD

LOGIN

2) Feedback For



A feedback form with a teal background. The title "FEEDBACK FORM" is centered at the top. The form contains several input fields and a submit button. The "RATE PROFESSOR" section has two columns of rating scales, each with a "Professor" label and a "Rating" label. The "RATE RELEVANT COURSES" section has two columns of rating scales, each with a "Course" label and a "Rating" label. The "SELECT STREAM" section has a single dropdown menu. A "SUBMIT FEEDBACK" button is at the bottom.

FEEDBACK FORM

NUID

NAME

WORK STATUS ☐ Employed ☐ Unemployed

CAREER LEVEL

RATE PROFESSOR

Professor	Rating	Professor	Rating
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

RATE RELEVANT COURSES

Course	Rating	Course	Rating
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

SELECT STREAM

SUBMIT FEEDBACK

3) Admin Panel

ADMIN PANEL

PROFESSOR DETAILS

Add Professor

Update Professor Details

Delete Professor Details

COURSE DETAILS

Add Course

Update Course Details

Delete Course Details

View Dashboard

4) Dashboard

DASHBOARD

SELECT DEPARTMENT

View

Department Rank

Popular Courses

Professor Ranking

Industry Trend

