

INFO 5100: APPLICATION ENGINEERING AND DEVELOPMENT

University Performance Evaluation Model

Assignment 3

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Introduction:

The Objective of this assignment is to create a performance evaluation metrics to improve the quality of education by using software engineering techniques. The University Performance Evaluation Model will help not just the university administrators but all the entities involved (such as students, employers, faculties) to get a better gist of how the courses and industry trends contribute to the growth of a student's career across a span of 5 years. One of the major deliverables of this model is to provide universities with a way to compare the progress of its different academic units and provide students with the relevant data which could help them make a better career decision. This report summarizes the key performance outcomes of the proposed model.

Proposed Solution:

University Performance Evaluation model provides us with a prototype on how we can improve the quality of education delivered by the universities and hold the entities accountable for their contribution towards it. That is, it heavily relies upon the feedback received by the students , faculties and the employers to design the course structure in such a way that it helps the students to decide which courses they want to select. The major deliverables of this model are as follows:

- University Administrators will have access to a dashboard which will allow them to compare the progress of its different academic units. This will be implemented by using the available information to form a report and display its results using different graphs and charts.
- The students and the faculties will provide feedback for each other and the course as well which would be used to create a ranking system.

- The model keeps a track of the Co-ops , jobs and promotions the students get over time and assigns the rank accordingly .
- The model provides a dashboard for the students to check which are the highly ranked courses , current industry trends and to evaluate their profiles based on the previous year's data available to the university.

Design Document:

After considering the various characteristics and features of the university's courses , following are the building elements that were used to design the model.

University:

University keeps record of all the academic units under it and all the programs are included under academic units.

Admin:

- Admin will have access to all the Professional and educational information available throughout the system.
- Admin can add or remove students, faculties, courses etc.
- Admin will have access to the seats enrollment , course registration, employers details and other relevant things.

Faculties:

- Faculties will impart education to students.
- Faculties will provide feedback for students and assign them classwork or homework.
- Can access/edit the list of students.
- Can access/edit course list.

Students:

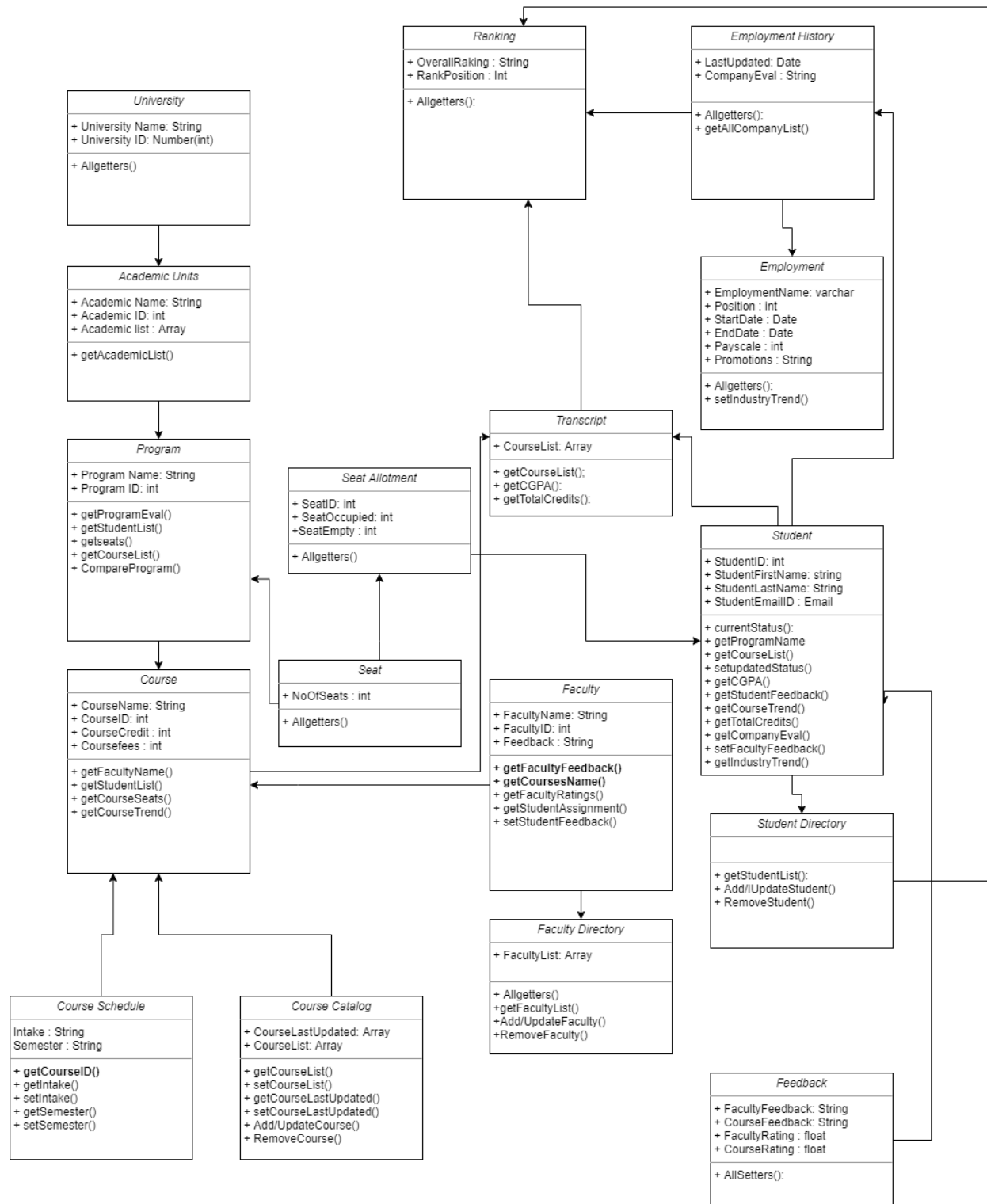
- Can enroll in courses and work upon the classwork provided.
- Can provide feedback o the faculty and courses
- Will be graded for their work every semester.
- Can apply for internships, or full-time work opportunity.

Modules included:

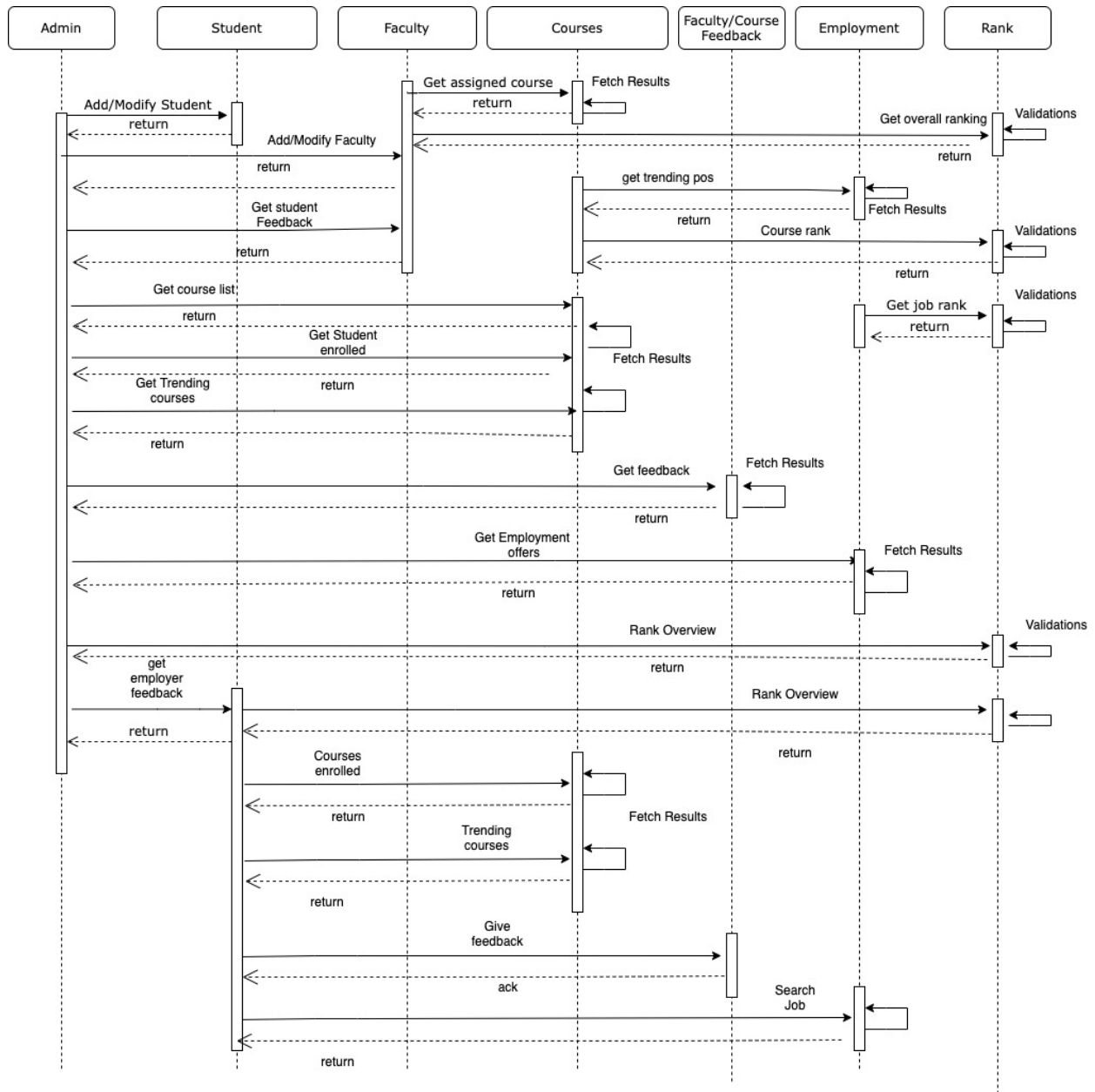
1. **University:** University keeps record of the university name and university ID.
2. **Academic Unit:** It keeps the record of all colleges included under particular university with academic unit name and ID.
3. **Program:** It consists of program name and program id. It has details of program evaluation, student list, no of seats in particular program, course list and comparison between two programs.
4. **Course Catalog:** It keeps a track of all courses provided by the program as well as the last updated date of the course. There is a feature to add/modify and remove courses.
5. **Course Schedule:** Intake and semester details are included under course schedule.
6. **Courses:** Course Name, Course ID, Course Credit, and credit fees information is included under courses module. Apart from this, faculty name, student list, course seats and course trend are included in courses.
7. **Seat Allotment:** Seat ID, no. of number seats occupied by seats and empty seats in any course is maintained under seat allotment module.
8. **Seat:** No of seats is captured under seats module.
9. **Faculty Directory:** The list of all faculties of a program are included under faculty directory where admin has right to add, modify and remove faculties.

10. **Faculty:** Faculty name and faculty ID are included in this. There is one field feedback as well as where faculty can give feedback for students as well.
11. **Student Directory:** All students are included under student directory. There is an admin access to add, remove and update students as well.
12. **Student:** Each student's first name, last name, id and email are recorded under student module. Program name, cgpa, their current status, student feedback, course trend , total credits, company evaluation, faculty feedback and industry trend is also included in this which can help them in growth of their career.
13. **Transcript:** Course list and credits of the course is included in this. Total CGPA obtained by students in the particular course is also recorded under this.
14. **Feedback:** The feedback of faculties and college recorded by students is included under this.
15. **Employment:** Employee name, start date, end date , PayScale, promotions and position is included in this.
16. **Employment History:** Company Evaluation and updated data of employment history is recorded in this.
17. **Ranking:** Student ranking is included in this.

UML Diagram:

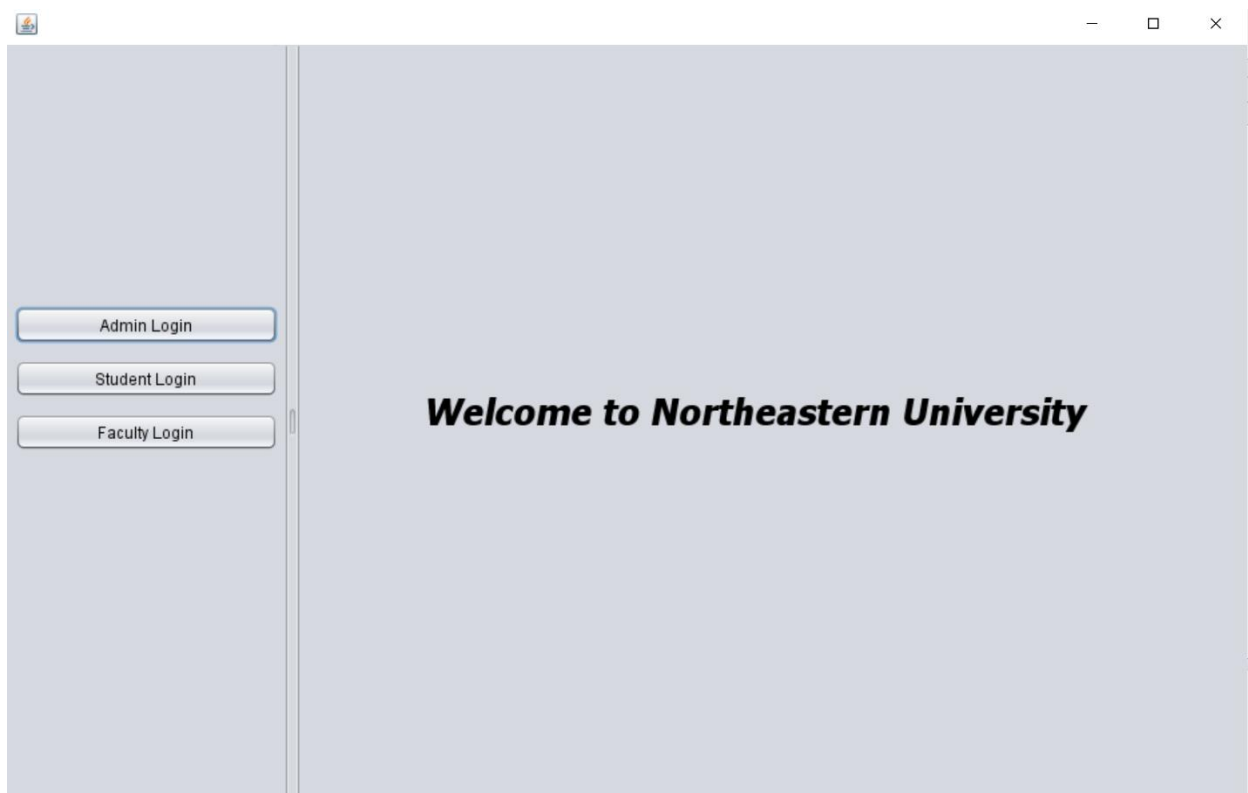


Sequence Diagram:

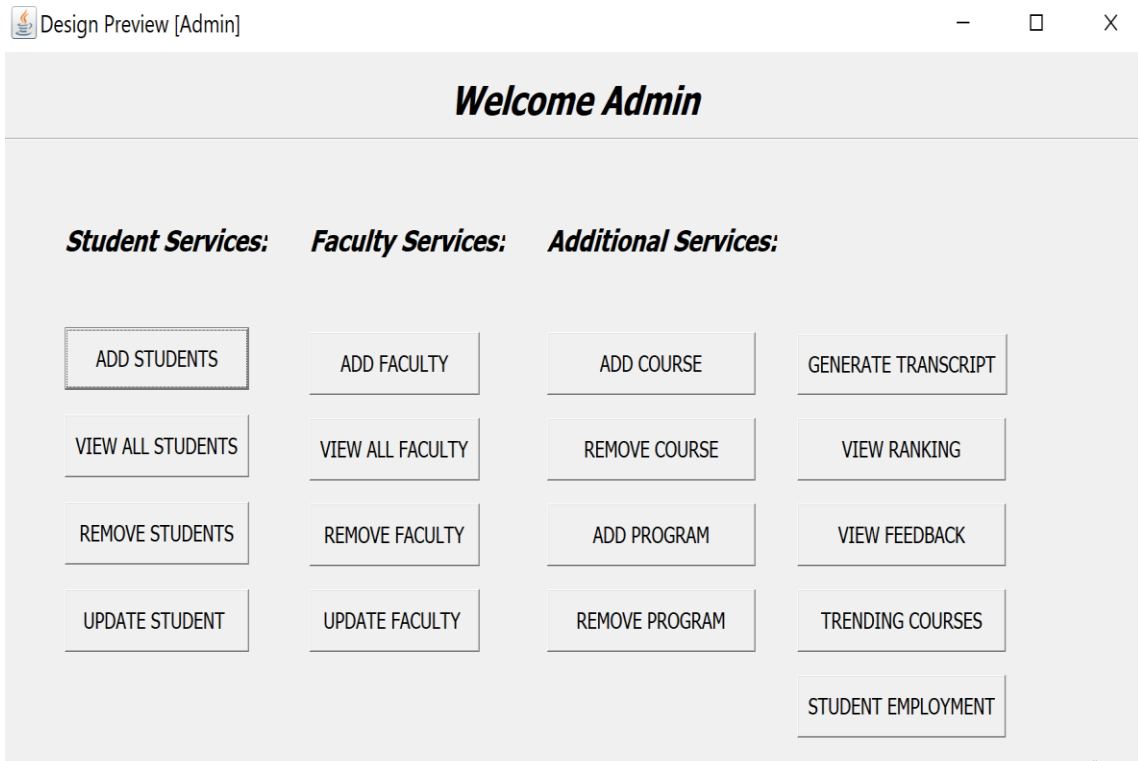


SAMPLE SNAPSHOTS:

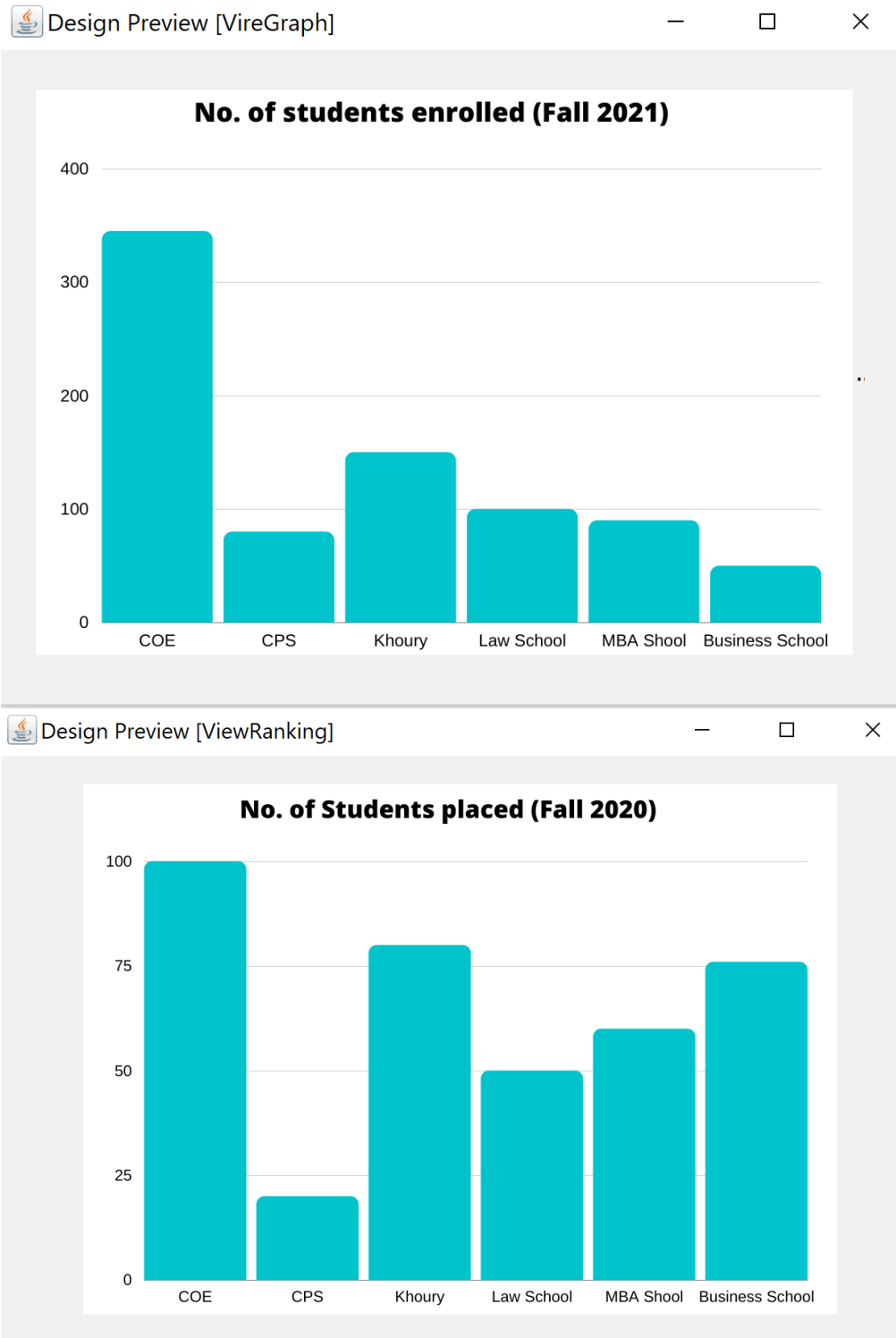
1. Home Page




2. Admin Panel



3. Admin Dashboard to compare different academic units.



4. Student Panel

 Design Preview [Student]

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Welcome Student

Basic Information:

Student Name:

Student Id:

Student Email:

Academic Unit:

Program:

Couser One:

Course Two:

Add Course Feedback

View Enrolled Courses

View Trending Course

View Ranking

Emplyment Information:

Employer Name:

Poistion:

Start Date:

End Date:

Update Employment St...

View Internship Offers

Add Employer Feedback

5. Student dashboard to display ranks of different courses, faculty, company and a profile evaluation metrics.



Design Preview [StudentEmpDashboard]



Student Employment Dashboard

Enter Course ID

Enter Faculty name

Enter Company name

Display Results:

Course Name:

Total Number of students
who got placed:

Course ratings:

 / 10

Profile Analysis:

Enter GPA:

Courses Enrolled:

☐ AED ☐ Web Design ☐ Data Science ☐ Data Analytics

Interested role:

☐ SDE ☐ FDE ☐ Data Scientist ☐ Business Analyst

Years of experinece:

☐ Yes ☐ No


If yes, how many?

Field of experts in:

Software developing ▼

Submit

6. Course feedback panel for students to evaluate course.

 Design Preview [CourseReview] — □ ×

Course Feedback

Would you recommend this course to other students?

☒ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

Did you find the course helpful?

☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

Would You recommend this course to other students?

☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

Rate the course: /10

Share Your Experinece:

Recommned Changes, if any: