UNIVERSITY MODEL

SKANDA SRINIVASAN: 001582653

ROCHAK NATH : 001563060

KULBIR SINGH : 001548318

Abstract:

There are a number of courses and universities to choose from, making it quite overwhelming for students to choose their best fit. This is why we have proposed a course ranking matrix solution to help students choose their best the quality of education they provide to their students and how it facilitates them in achieving their future endeavours

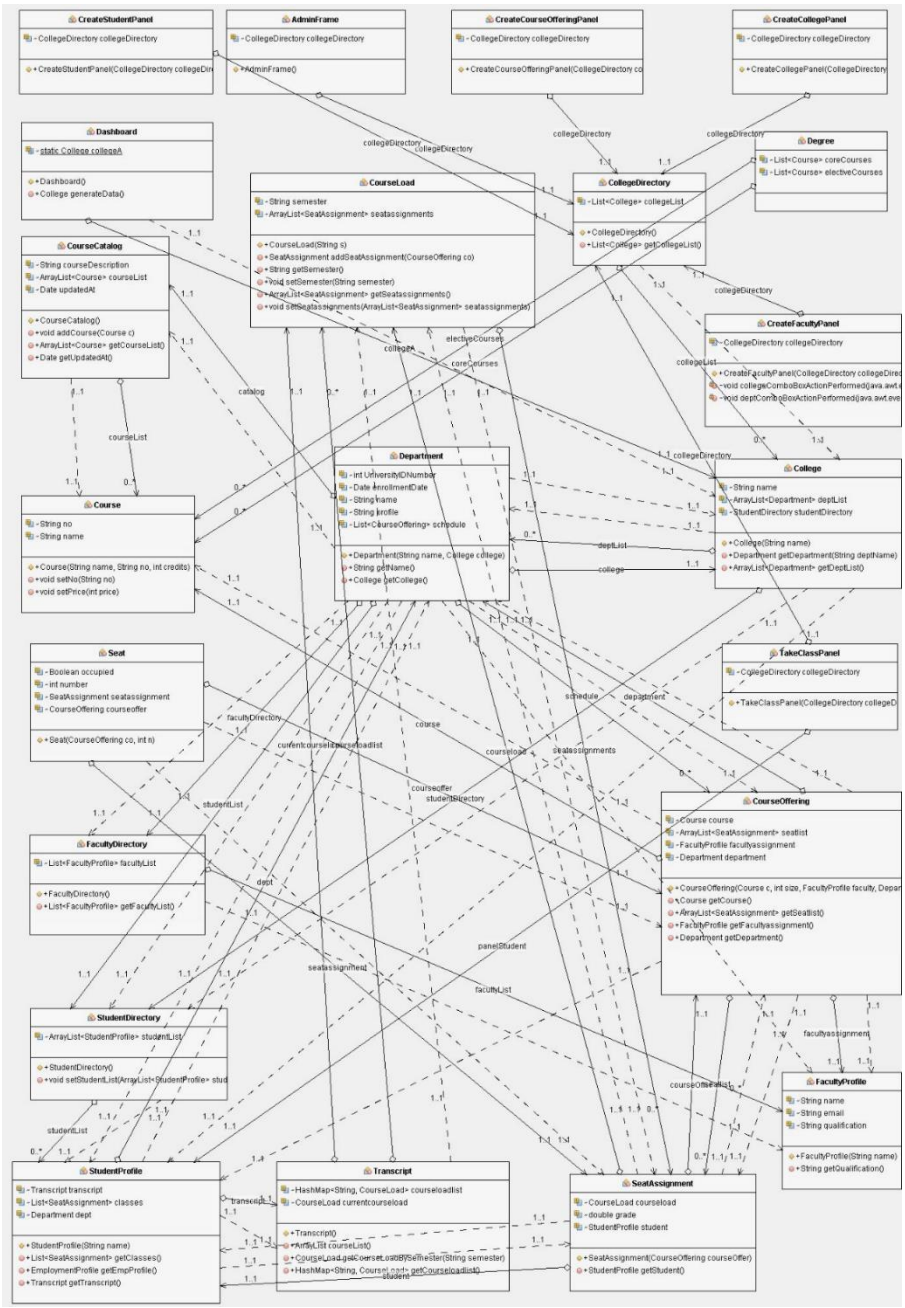
Model Assumptions:

➢ The factors which affect the rating of the course have been emphasized upon directly to the ranking of the university. Any undeclared condition and/or parameters would be a limitation to the scope of the university course's ranking model and its evaluation.

➢ The amalgamation of roles and responsibilities of namely Students, Faculty and employer outputs the factors affecting the ranking of the university model and it's course evaluation.

CLASS DIAGRAM:

The .cfg is UML diagram which we made using reverse engineering as no ones does using easyUML ,to have a look in it import the easyUML as plugin and import the cdf file.



Components Involved:

1. Department:

This component contains all the details regarding the department.

Attributes	Data types	Description
Name	String	Name of the department
College	string	College graduated from
Student Directory	arrays	List of students
Faculty Directory	arrays	List of faculties

Methods: getName(), getcollege(), getFacultyDirectory(), getStudentDirectory().

2 Course:

This will contain courses taken by the student.

Attributes	Data types	Description

Name	integer	Name of the course
Course number	Integer	ID of the course
Number of credits	Integer	Credits completed
Price	Integer	Price of the courses

METHODS: getName(),getCourseNumber(),getNumberCredits(),getPrice().

3 EMPLOYEE PROFILE:

This will contain all the descriptions about a student's job.

Attributes	Data types	Description
Student profile	Student profile	Custom object
Employee history	Array	Record of employment
Filed of employment	String	Jobs in which employed
Current salary	Integer	Salary of the student

Methods: getCurrentSalary(),getEmployeehistory(),getFieldOfEmployment(), tracksalarygrowth(employment history).

4 COLLEGE:

This will contain details of the student and departments.

Attributes	Data types	Description

Student Directory	Arrays	Arrays of students
Department directory	Arrays	List of department
Name	String	Name of the college
University	String	Custom object

Methods: getName(),getStudentDirectory().getDepartmentDirectory().

5 JOB PERFORMANCE:

This will contain details of the job performance of the student in different jobs.

Attributes	Data types	Description
Promotion count	Integer	Number of promotion s in 5 years
Salary growth %	Integer	Rate of salary increment
Ranking	Integer	Rank of the university
Job history	String	Previous job record

Methods : getSalarygrowth(),getPromotionCount().

6 TRANSCRIPT:

This will contain details of the student's course load as well as gpa

Attributes	Data types	Description
Gpa	Double	Gpa of the student

Course load list	Hashmap	Custom object
Current course load	Array	Custom object
Student profile	Student profile	Custom object

Methods: calculategpa().

7 FACULTY:

This will contain details of the faculty.

Attributes	Data types	Description
Name	String	Name of faculty
Email	String	Email of faculty
Qualification	String	Qualification of the faculty
Department	String	Department of the faculty

Methods: getName().

8 Employment history :

This will contain the details of the history of the student's employments.

Salaries	integer	Salary count of 5 years
Places of employment	Integer	Previous job experience

Methods: getsalary().

9 PROMOTIONS:

This contains details about the students promotion.

Gained	Integer	Number of promotions

10 DEGREE:

This contains the courses allotted in the degree.

Core courses	Arrays	List of core objects
Elective courses	Arrays	List of elective objects

Methods: meet requirements (student profile).

Detailed Analysis:

There are various aspects that need to be considered for a better quality of education system for the long run and its credibility:

➢ Research Papers:

A lot of the knowledge can be gained about a university and it's reputation from the research papers that are being published by it's student. The greater number of research papers published the more the university is going to be in the limelight.

➢ Employee Tracking System:

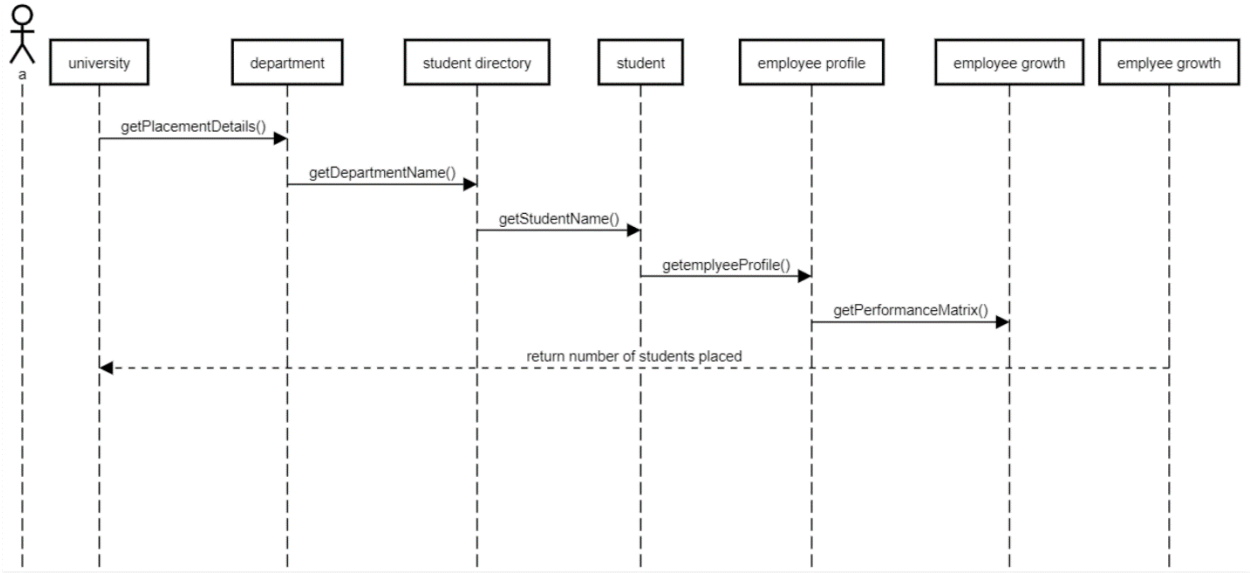
Students already placed will deliver quality of work when the coursework is good enough for them to be industry ready which will increase in the placement for the future students and increase the enrollment of the students every year. University overall revenue will improve.

➢ Employment History:

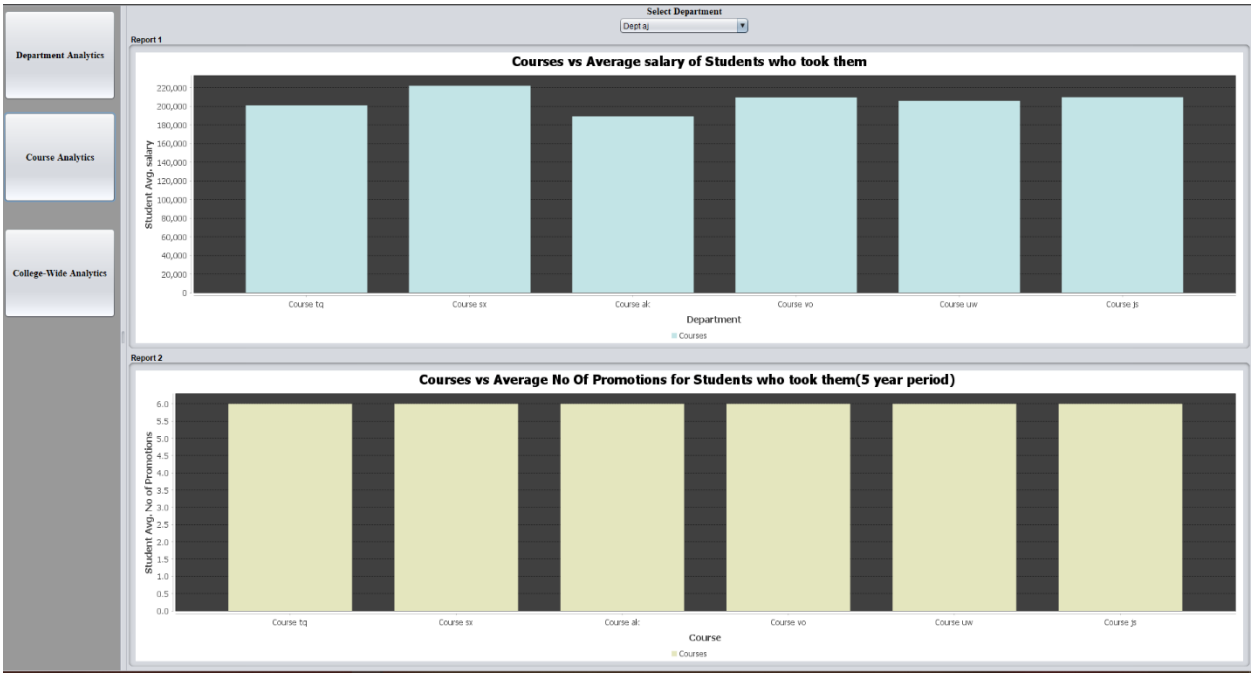
History of Employment is a key driver to show how good a Student is and to which

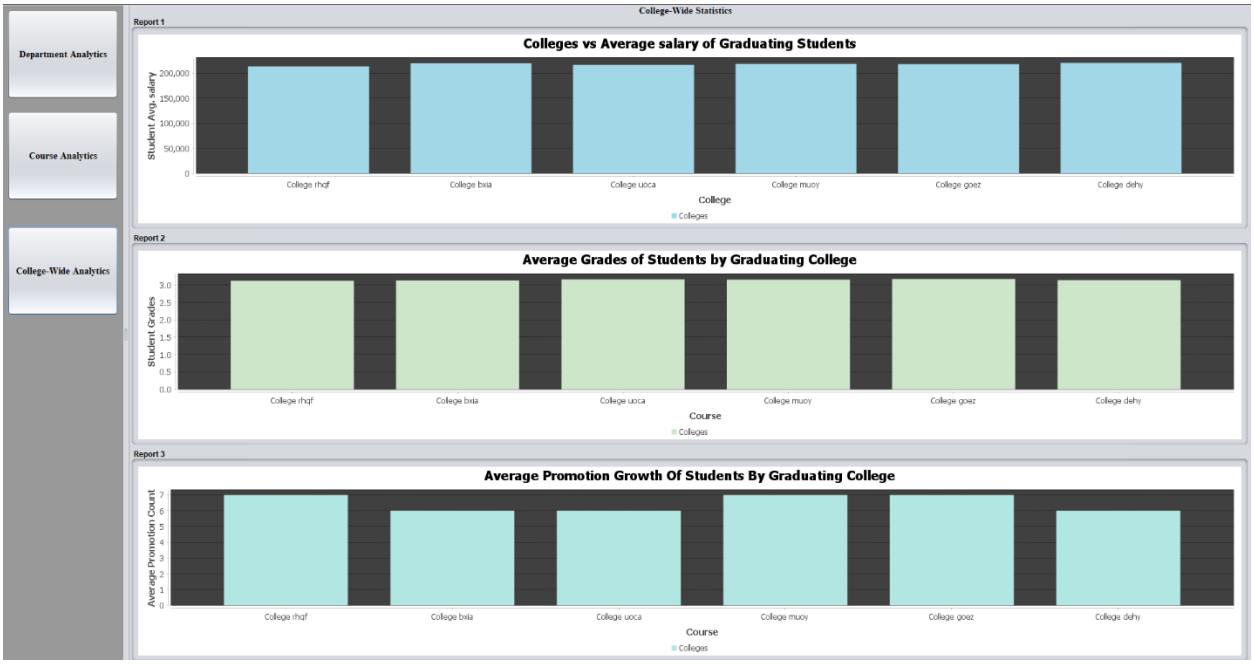
Companies he is easily able to crack his interviews for. Apart from this, this history talks more on the career path a Student intends to choose based on his learnings from his previous jobs. All of this information ties back to which category of Departments - Course catalogs - Faculty combination the student belonged to. It can even be attributed to his history of Grades in and outside the University, may be in his Academic education, etc. A University can learn a lot about what to improve, having known about this information.

Sequence Diagram:



Dashboard:


Department Analytics
Course Analytics
College-Wide Analytics
Select Department
Dept aj
Report 1
Courses vs Average salary of Students who took them
Student Avg. salary
Course tq
Course sx
Course al:
Course vo
Course uw
Course js
Department
Courses
Report 2
Courses vs Average No Of Promotions for Students who took them(5 year period)
Student Avg. No of Promotions
Course
Courses


Department Analytics
Course Analytics
College-Wide Analytics
College-Wide Statistics
Report 1
Colleges vs Average salary of Graduating Students
Student Avg. salary
College rhqf
College bxia
College uoca
College muoy
College goez
College dehy
College
Colleges
Report 2
Average Grades of Students by Graduating College
Student Grades
Course
Colleges
Report 3
Average Promotion Growth Of Students By Graduating College
Average Promotion Count
Course
Colleges


Department Analytics
Course Analytics
College-Wide Analytics
Select College
College rhqf
Report 1
Departments vs Average Student Salary
Student Avg. salary
220,000
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Dept aj
Dept mt
Dept kw
Dept ha
Department
Departments
Report 2
Departments vs Graduate's Salary Growth in 5 years(%)
Student Avg. salary
200
180
160
140
120
100
80
60
40
20
0
Dept aj
Dept mt
Dept kw
Dept ha
Department
Departments