

REPORT ON PERFORMANCE MATRIX OF UNIVERSITY

Submitted by

Jayesh Khattar (001568947)

Harsh Sharma (002102615)

Neha Chandel (001593825)

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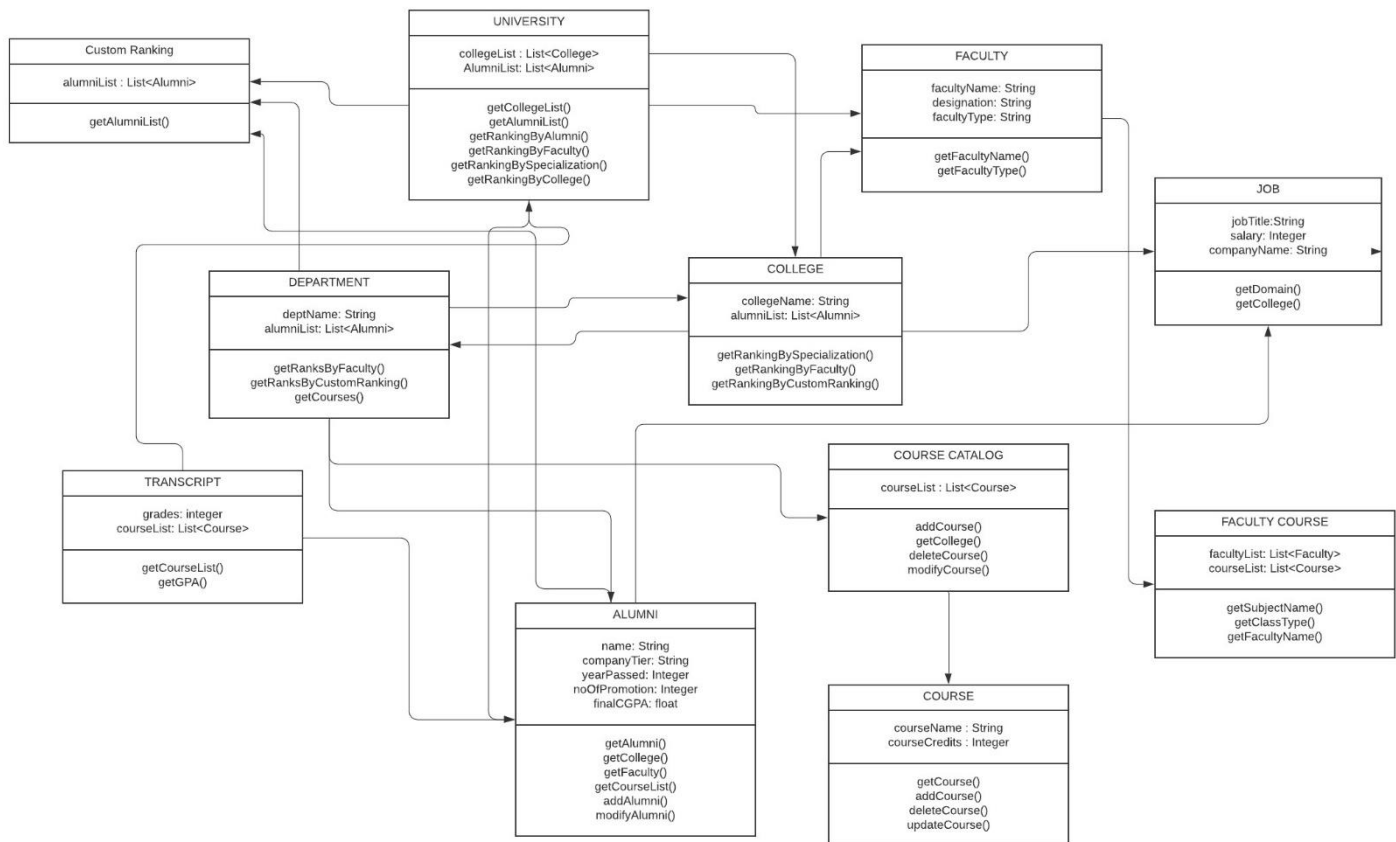
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1.Objectives

- Objective of this assignment is to create a performance measurement solution to help universities to improve upon the quality of the education they deliver to their students.
- Objective is to evaluate the contribution of courses and faculty in the growth of graduates over a 5-year period.
- It is also to evaluate the connection of the courses taken by students and its relevance to graduates growth.
- It is to enable the university administrators to compare the performance of their academic units.

2.Object Model

- To achieve the above objectives, we have designed a class diagram which includes the following entities –
 - University
 - Faculty
 - College
 - Alumni
 - Department
- We have added a ranking (custom ranking) system that has been designed on multiple metrics. We have discussed these in detail in below section. We use these parameters to filter the alumni in the university records.
- We can use transcripts to get the ranking of the students from the CGPA.
- We have used List for storing all the values in the system. We would be initializing these Lists with ArrayList<>. These being ArrayList<Alumni>, ArrayList<College>, ArrayList<Jobs> etc.



3. Sequence Diagram

- In the below sequence diagram, an alumnus will be the main actor.
- A university admin acts as an admin user for this system.
- Parameters used below in this sequence diagram, will be used to get the alumni ranking.
- The university can fetch rankings with various primary factors like:
 1. By College
 2. By Faculty
 3. By Department

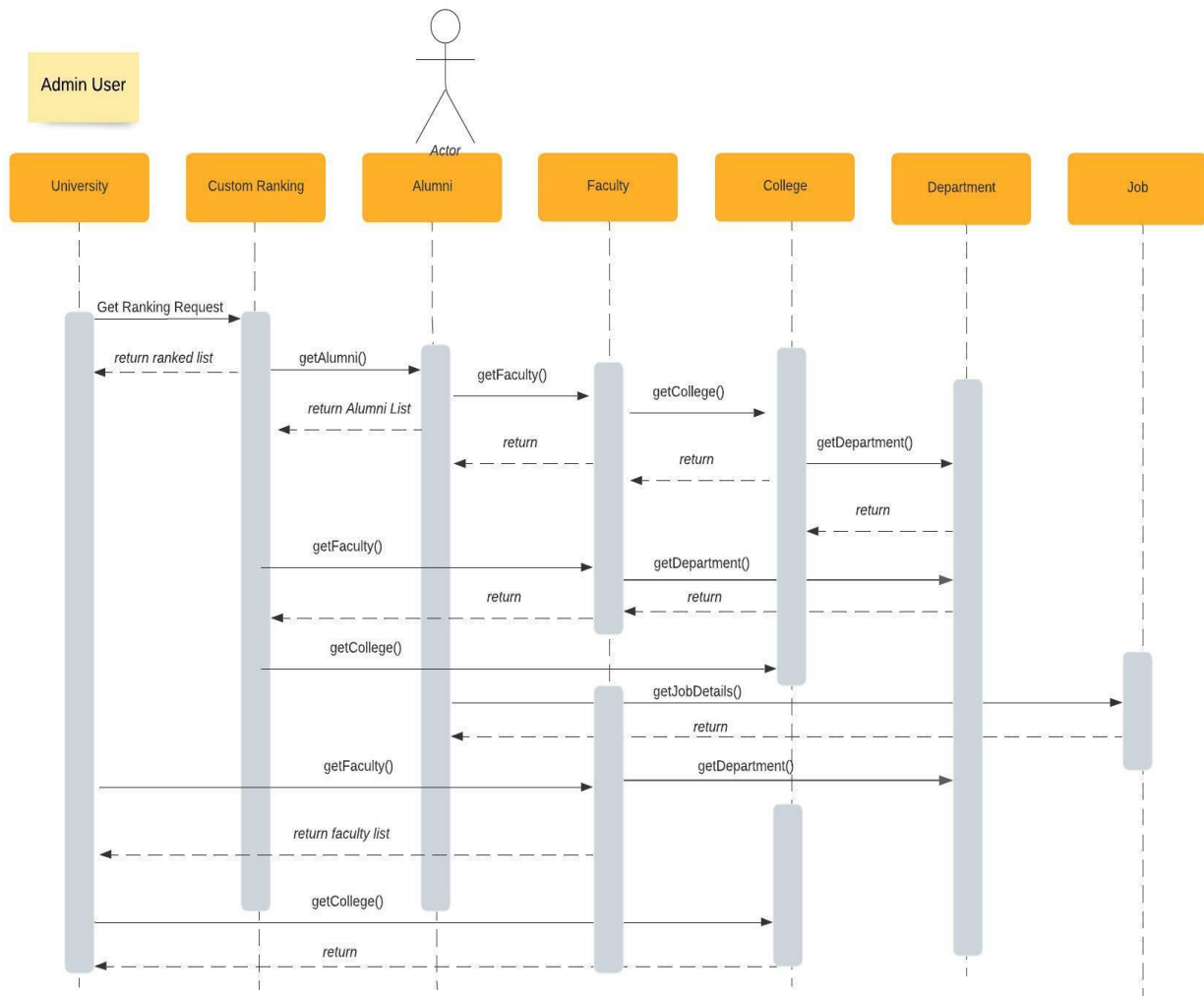


Fig: Sequence diagram to show the flow of getting custom ranking and all the required parameters

4.Alumni Profile

A profile of every alumnus needs to be recorded and inserted. An alumnus can be either self-employed or they can be salaried. Based on his/her inputs, their performance would be calculated. A self-employed or a business owner would have the following parameters: -

| Alumni Details Self Employed | |
|------------------------------|--|
| Name | <input type="text"/> |
| Email | <input type="text"/> |
| Contact Number | <input type="text"/> |
| Year of Graduation | <input type="text"/> |
| Year of Enrollment | <input type="text"/> |
| Employment Sector | <input type="text"/> |
| Funding | <input type="radio"/> More than 200k <input type="radio"/> 100k-200k <input type="radio"/> 50-100k <input type="radio"/> Less than 50k |
| Employment Count | <input type="radio"/> 500 or More <input type="radio"/> 300-500 <input type="radio"/> 100-300 <input type="radio"/> Less than 100 |
| Do you have patent | <input type="radio"/> Yes <input type="radio"/> No |

The parameters for salaried alumni are as follows:

| Alumni Details Salaried | |
|--|---|
| Name | <input type="text"/> |
| Email | <input type="text"/> |
| Contact Number | <input type="text"/> |
| Year of Graduation | <input type="text"/> |
| Year of Enrollment | <input type="text"/> |
| Annual Income | <input type="radio"/> 300k+ <input type="radio"/> 200k-300k <input type="radio"/> 100k-200k <input type="radio"/> Below 100k |
| Company Tier | <input type="radio"/> Fortune 100 <input type="radio"/> Fortune 100-300 <input type="radio"/> Fortune 300-500 <input type="radio"/> Other |
| Number of Promotions Taken | <input type="radio"/> 3 or more <input type="radio"/> 2 <input type="radio"/> 1 <input type="radio"/> 0 |
| Participated In College Oriented Career Fair | <input type="radio"/> Yes <input type="radio"/> No |
| Do you have patent | <input type="radio"/> Yes <input type="radio"/> No |

5.Ranking Criteria for Alumni

| Self Employed | Salaried |
|---|---|
| Employee Count 200 or more: 1 100-200 : 0.7 200-300 : 0.4 300-400 : 0 | Tier of Organization Fortune 100 : 2.5 Fortune 100-300 : 2 Fortune 300-500 : 1.5 Other : 0.5 |
| Funding (in Dollars) More than 100K : 2.5 25k -100k : 2 5k -25k : 1.5 Less than 5K : 0.5 | Annual Salary (in Dollars) More than 200k : 2.5 200k-120k : 2 120-80k : 1.5 Below 80k : 0.5 |
| Relevance to Graduate Studies Yes:1 No :0 | Number of Promotions 3 or more : 1 2 : 0.7 1 : 0.5 0 : 0 |
| Patents Yes:1 No : 0 | Relevance to Graduate Studies Yes: 1 No : 0 |
| GPA 4.0-3.8 : 1 3.8-3.5 : 0.7 3.5-3 : 0.4 Below 3 : 0 | Patents Yes: 1 No : 0 |
| | GPA 4.0-3.8 : 1 3.8-3.5 : 0.7 3.5-3 : 0.4 Below 3 : 0 |

6. Performance Measurement

6.1 Performance on Alumni in University:

Performance Measurement

Search By Alumni Name

Search

Performance By College

Performance By Faculty

Performance By Specialization

| Name | College | Department | Specialization | Score | Employed |
|--------|---------|-------------|--------------------|-------|----------|
| Neha | COE | IS | UI Designer | 9.2 | Yes |
| Jayesh | KHOURY | CS | Software Developer | 8.7 | Yes |
| Harsh | LAW | Criminology | Criminal Law | 9.8 | Yes |
| John | CPS | MEM | Project Management | 7.5 | No |

The table above will have information of every alumnus of the University, the score would be calculated based on the parameters in above page, and the list would be in order of Rank of Alumni . We can also fetch details of a specific alumni based on their name.

Performance specific to *college*, *department*, or *faculty* can be accessed by the respective buttons are in middle of the panel.

6.2 Performance based on College:

Using the average scores of all the alumni of the colleges, we have given a score and a rank to each college.

We can search the list of college by using the search option in Search by College.

After selecting a college, we get the list of the alumni of that college. We can also search alumni from that list. It will fetch you the details of alumni in that college.

Performance Measurement by College

Search By College

Search

Performance By College

Performance By Faculty

Performance By Department

| College | Score | Rank |
|---------|-------|------|
| COE | 9.6 | 1 |
| KHOURY | 8.9 | 2 |
| LAW | 8.2 | 3 |
| CPS | 9.5 | 4 |

Search By Alumni Name

Search

| Name | College | Department | Specialization | Score | Employed |
|--------|---------|------------|--------------------|-------|----------|
| Neha | COE | IS | UI Designer | 9.2 | Yes |
| Jayesh | COE | IS | Software Developer | 7.4 | Yes |
| Harsh | COE | Civil | Civik Engineer | 8.6 | Yes |
| John | COE | Mechanical | Project Management | 9.5 | Yes |

6.3 Performance based on Department:

Using the average scores of all the alumni of each department, we have given a score and a rank to each department.

We can search the list of departments by using the search option in Search by Department.

After selecting a department, we get the list of the alumni of that department. We can also search alumni from that list. It will fetch you the details of alumni in that department.

Performance Measurement by Department

Search By Department

Search

Performance By College

Performance By Faculty

Performance By Department

| Department | Score | Rank |
|------------|-------|------|
| IS | 9.6 | 1 |
| CS | 8.9 | 2 |
| PS | 8.2 | 3 |
| Mechanical | 9.5 | 4 |

Search By Alumni Name

Search

| Name | College | Department | Specialization | Score | Employed |
|--------|---------|------------|----------------------|-------|----------|
| Neha | COE | IS | UI UX | 9.2 | Yes |
| Jayesh | COE | IS | Software Development | 8.4 | Yes |
| Harsh | COE | IS | Data Engineering | 8.6 | Yes |
| John | COE | IS | Data Analyst | 7.5 | Yes |

6.4 Performance based on Faculty:

Every Faculty has been given a score and rank. The total score is the aggregate of score of alumni who has taken course of the faculty.

Alumni record specific to a faculty member can be searched.

Performance Measurement by Faculty

Search By Faculty

| Faculty Name | Designation | Score | Rank |
|------------------|---------------------|-------|------|
| Dr. Karl Bugrara | Head of Department | 9.6 | 1 |
| Dr. Brown | Senior Professor | 8.6 | 2 |
| Mr. Vincent | Professor | 7.6 | 3 |
| Mr. Harsh Anand | Assistant Professor | 6.6 | 4 |