

UNIVERSITY MODEL ASSIGNMENT

TEAM:

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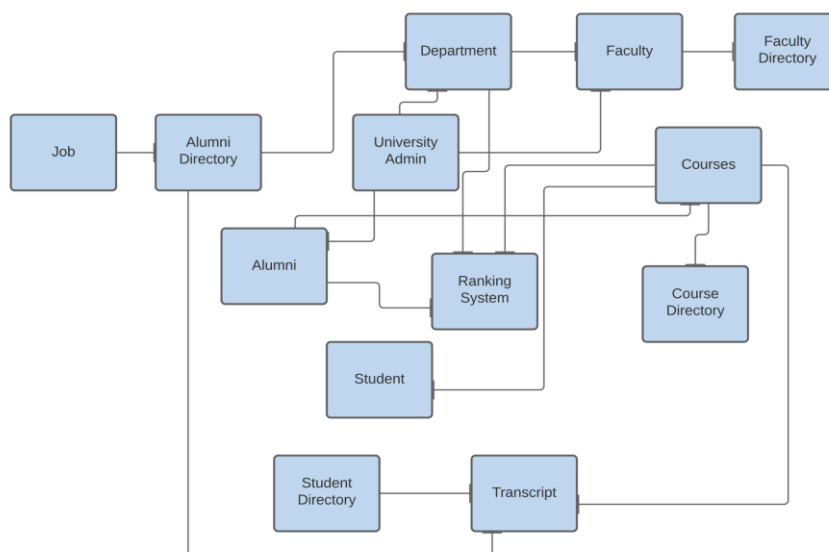
INTRODUCTION:

It is obvious that as years pass by there goes along complexity and requirement for education that fits the times that we live in emerges. The progress in the tutoring system offered in educational institutions is an obvious sign that education has to be of specific quality to meet certain standards in the industry. In this way, it is pertinent to prepare and equip individuals within the institutions with quality skills to achieve sustainability. This research tries to investigate how University gives quality education.

OBJECTIVE :

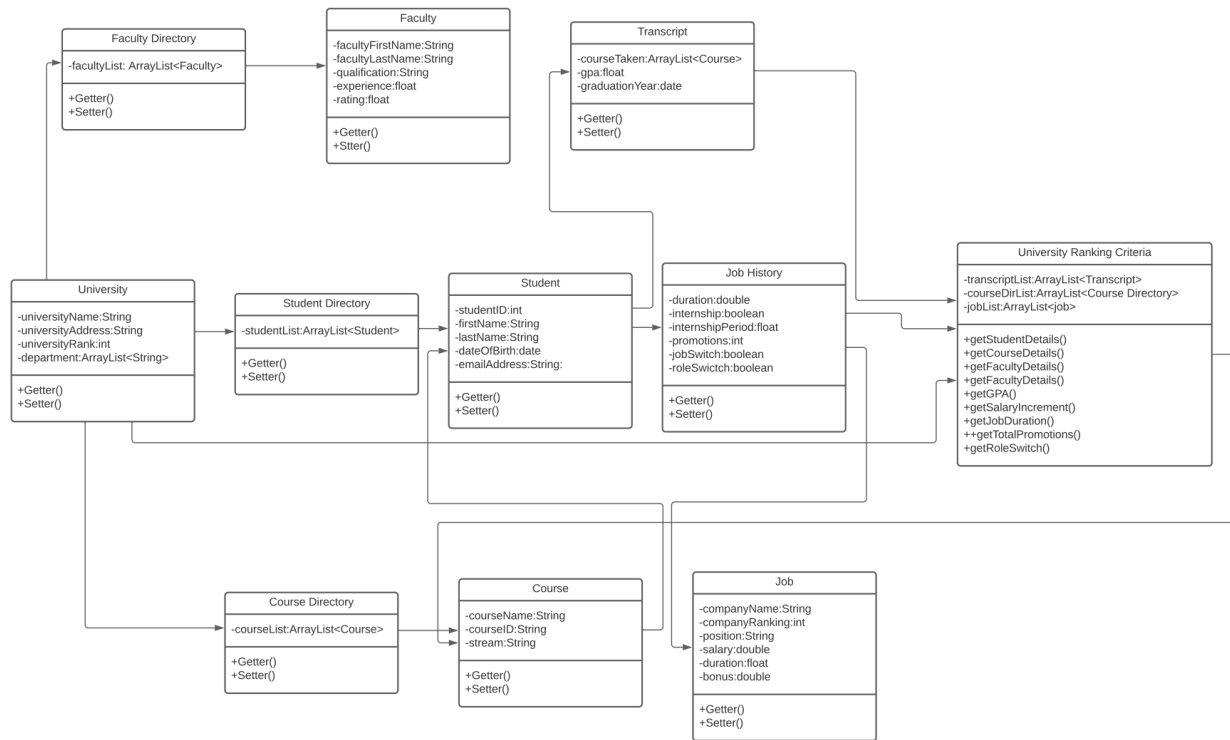
The objective of this design is to calculate the performance of the university using software engineering techniques. We have created a solution to enable universities to measure the quality of the education they deliver to the students. Using this approach the educational system can access all the relevant details of a student during their studying time and after their completion of education within a 5 year period.

OBJECT MODEL :



UML :

UML DIAGRAM FOR UNIVERSITY MODEL



The various classes used In the model are as follows :

❖ Faculty Directory

✚ facultyList: ArrayList<Faculty>

❖ Faculty

✚ facultyFirstName: String
✚ facultyLastName: String
✚ qualification: String
✚ experience: float
✚ rating: float

❖ Course Directory

✚ courseList: ArrayList<Course>

❖ Course

- ✚ courseName: String
- ✚ courseID: String
- ✚ stream: String

❖ **Transcript:**

- ✚ courseTaken: ArrayList<course>
- ✚ gpa: float
- ✚ graduationYear: date

❖ **Job History**

- ✚ duration: double
- ✚ internship: boolean
- ✚ internshipPeriod: float
- ✚ promotions: int
- ✚ jobSwitch: boolean
- ✚ roleSwitch: boolean

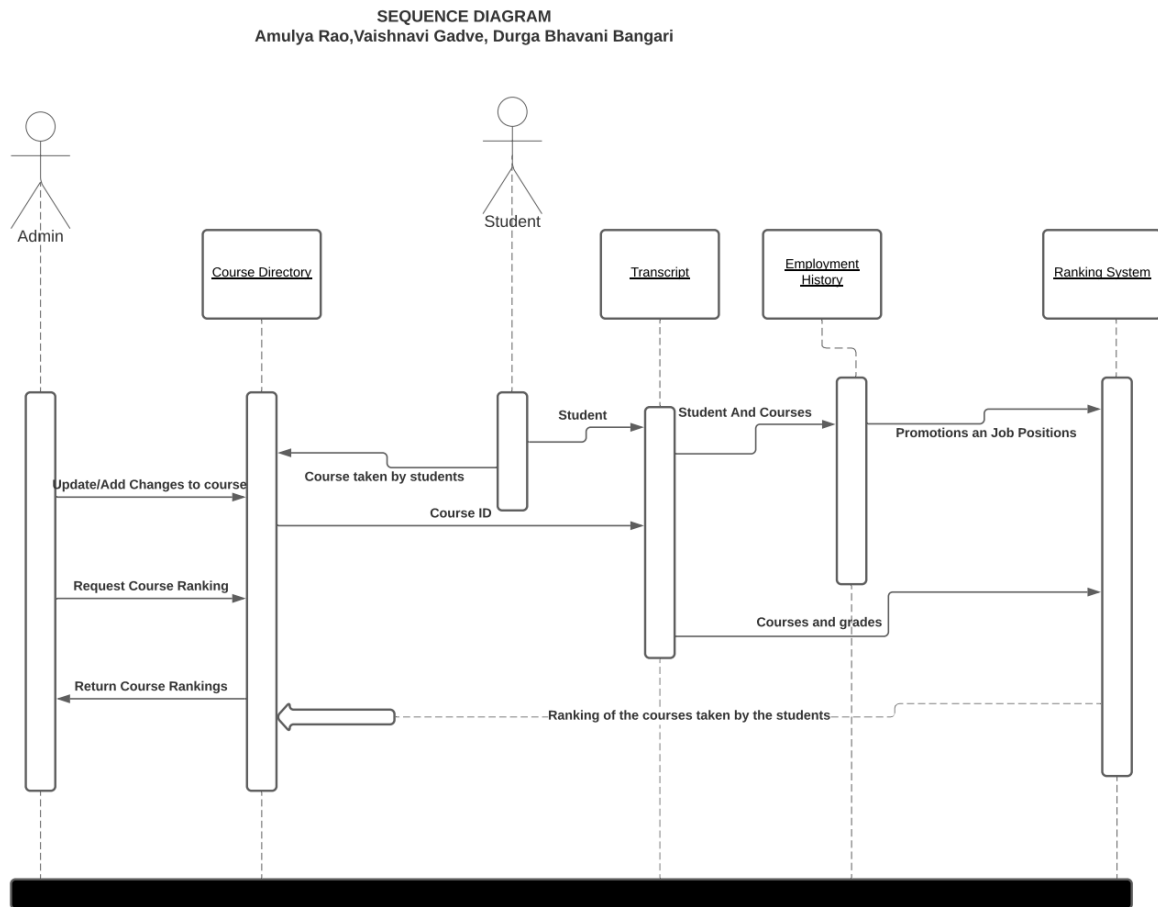
❖ **Job**

- ✚ companyName: String
- ✚ companyRanking: int
- ✚ position: String
- ✚ salary: double
- ✚ duration: float
- ✚ bonus: double

- The university model built uses many getters and setters method for its ranking system. They are as follows:

- ✚ getStudentDetails()
- ✚ getCourseDetails()
- ✚ getFacultyDetails()
- ✚ getGPA()
- ✚ getSalaryIncrement()
- ✚ getJobDuration()
- ✚ getTotalPromotion()
- ✚ getRoleSwitch()

SEQUENCE DIAGRAM :



FLOW:

When a user tries to request for course ranking, `getCourseList()` method will be called in the `CourseDirectory` class. This invokes `getCourseID()` in the `course` class. Using the `CourseID` the `getCourse()` method is invoked from the `Transcript` class and the courses taken and grades for the courses can be known. Based on the details fetched from the databases the GPA is calculated and course ranking is obtained as to how the students in each course have performed. This course ranking will finally give the university ranking.

USER INTERFACE :

Below is the University Model :

UNIVERSITY RANKING MODEL

New Student

Students List

Faculty List

Alumni Information

Course List

Department Rank GPA

GPA/Placements

Student Enrollment Info

Exit

Below is the UI to add a new student:

UNIVERSITY RANKING MODEL

New Student

Students List

Faculty List

Alumni Information

Course List

Department Rank GPA

GPA/Placements

Student Enrollment Info

Exit

Enter Details

ID :

1002

Name :

Daniel

Address:

Boston

Phone No. :

4558693

Submit

Below is the UI for the list of All Students :

UNIVERSITY RANKING MODEL

New Student

Students List

Faculty List

Alumni Information

Course List

Department Rank GPA

GPA/Placements

Student Enrollment Info

Exit

List of all Students

ID	Name	Address	Phone Number
595500786	Ferry, Koch an...	3474 Kunoitsd...	2513310534
806498820	Cassin-Dooley	759 Felisa Place	3809408033
833310660	Waelchi Group	49208 Josh Shoal	3108405763
762020291	Ritchie-Wunsch	201 Troy Mill	2528723772
284525066	McLaughlin, Me...	238 Guy Glen	7703843407
664913144	Skiles-Halvorson	60672 Jonatha...	7577723254
301054782	Kunze-Kunde	26378 Zelma S...	0615075747
951608858	Sauer LLC	815 Kizzy Burgs	1481902360
001788031	Williamson Inc	2985 Waters S...	3671266855
257323777	Hand-Goodwin	7143 Jorge Cro...	8273066787
510797817	Emmerich-Bec...	82174 Pilar Av...	5726877842
391318809	Schroeder-Stra...	569 Tobias Cur...	0868742877
726101334	Goldner-Crooks	10673 Eli Port	2848255281
374070875	Johnston Inc	47410 Rolfson ...	7388260258
877401173	Sporer, Bednar...	9578 McGlynn ...	2460763196
037738844	Johnson and Sons	71207 Tracy O...	3780742403
1002	Daniel	Boston	4558693

Below is the UI for the list of All Faculty

UNIVERSITY RANKING MODEL

New Student

Students List

Faculty List

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Course List

Department Rank GPA

GPA/Placements

Student Enrollment Info

Exit

List of All Faculty

ID	Name	Address	Phone Number
778530166	Laurie Pagac II	938 Walter Oval	4983344430
781663557	Shelby Carroll	0482 Forrest Is...	6148878427
626554257	Lin Klein	4447 Herman ...	2181276307
075440717	Ms. Faviola Sch...	72414 Crona C...	6416344200
062061128	Mrs. Gigi Koepp	585 Weissnat R...	2254823224
461037462	Rodrigo Brakus	394 Nikolaus M...	7741888307
787102807	Curtis Stracke IV	684 Alfred Roads	1783437282
085237781	Vanda Powlowski	4734 Fatimah ...	6928963525
126214490	Karole Parisian	41139 Rowe Pr...	4568332331
385095456	Cleveland Kunde	8230 Andre Cr...	7458429266
431678910	Coleman Olson	884 McLaughlin...	4630588241
863443551	Mrs. Edmund R...	78224 Boyle Al...	2011488127
993117813	Pearle Bogan D...	46187 Block St...	1732376362
766034650	Denese Hermis...	6128 Suzanne ...	7415504061
336835885	Dr. Sherley Re...	58661 Wehner ...	7015605030
414364975	Mr. Jerri Beier	5830 Ward Squ...	0514498877
553752114	Naraida Green	888 Prosser R...	2385158205

Below is the UI for the list of Alumni

UNIVERSITY RANKING MODEL

New Student

Students List

Faculty List

Alumni Information

Course List

Department Rank GPA

GPA/Placements

Student Enrollment Info

Exit

Alumni List

ID	Name	Address	Phone Number
552288690	Yost-Veum	9007 Franecki ...	9177243727
898663913	Leffler Inc	129 Dooley Cove	4118979676
463868230	Volkman, Casp...	12566 Suzie Inlet	3435359453
761345333	Smith LLC	877 Kohler Pas...	4843719844
537133674	Abernathy LLC	512 Basil Rapid	2804054576
273866118	Kassulke-Klocko	46136 Teressa...	4543329913
122287082	Auer, Armstron...	8548 Heiler Su...	1248161073
725513814	Dach and Sons	29738 Mayer L...	5776252055
467388336	Tremblay LLC	7690 Modesto ...	8416627905
283602237	Dickens LLC	994 Fadel Man...	3841670951
624897470	Rolfson, Grime...	63304 O'Kon ...	3381468761
376191453	Sanford and Sons	5559 Leonarda...	9271467636
902453496	Haley Inc	681 Kris Drive	0208281657
862620409	Schmitt, Gaylor...	3093 Greenfel...	1522812374
124667161	Boyer Inc	166 MacGyver ...	0246286783
834424578	Ullrich-Blanda	3984 Huel Stre...	0111338211
007825432	Veum Group	5564 Kay Springs	0927654348

Below is the UI for the list of Courses Offered and To Add New Course

UNIVERSITY RANKING MODEL

New Student
Students List
Faculty List
Alumni Information
Course List
Department Rank GPA
GPA/Placements
Student Enrollment Info
Exit

Courses Offer...

Analytics
Artificial Intelligence
Business Analytics
Computer Science
Data Analytics

Enter New Course Details

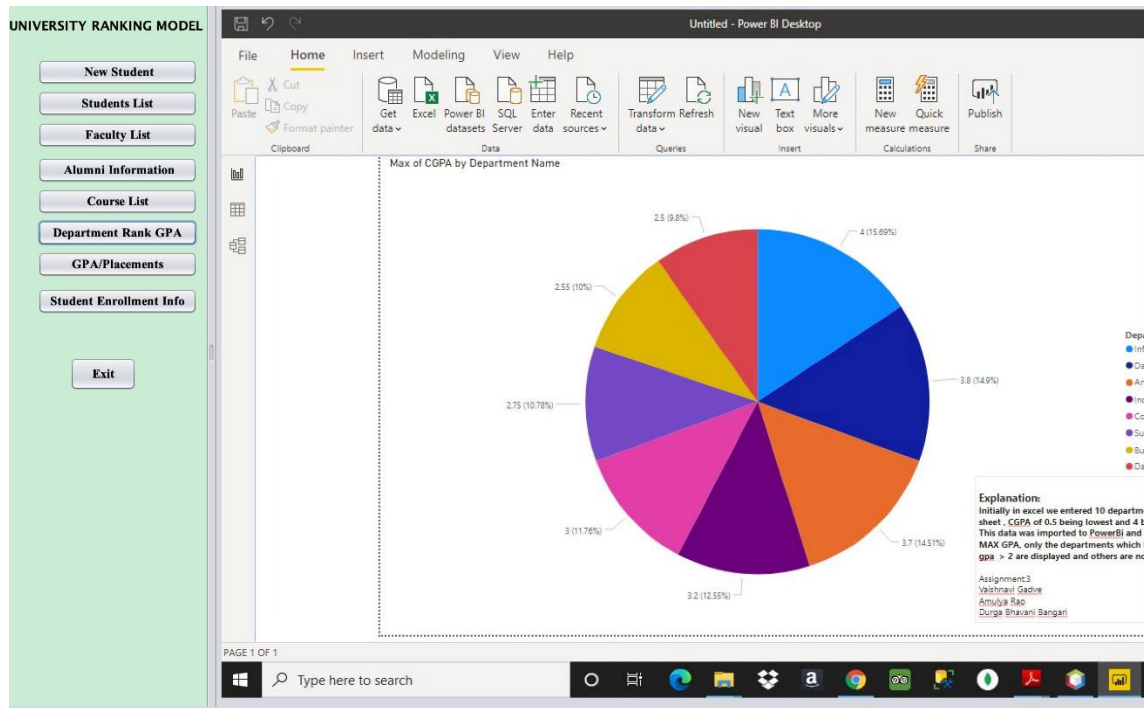
Course Name :
Course Number :
Course Credits :

Add

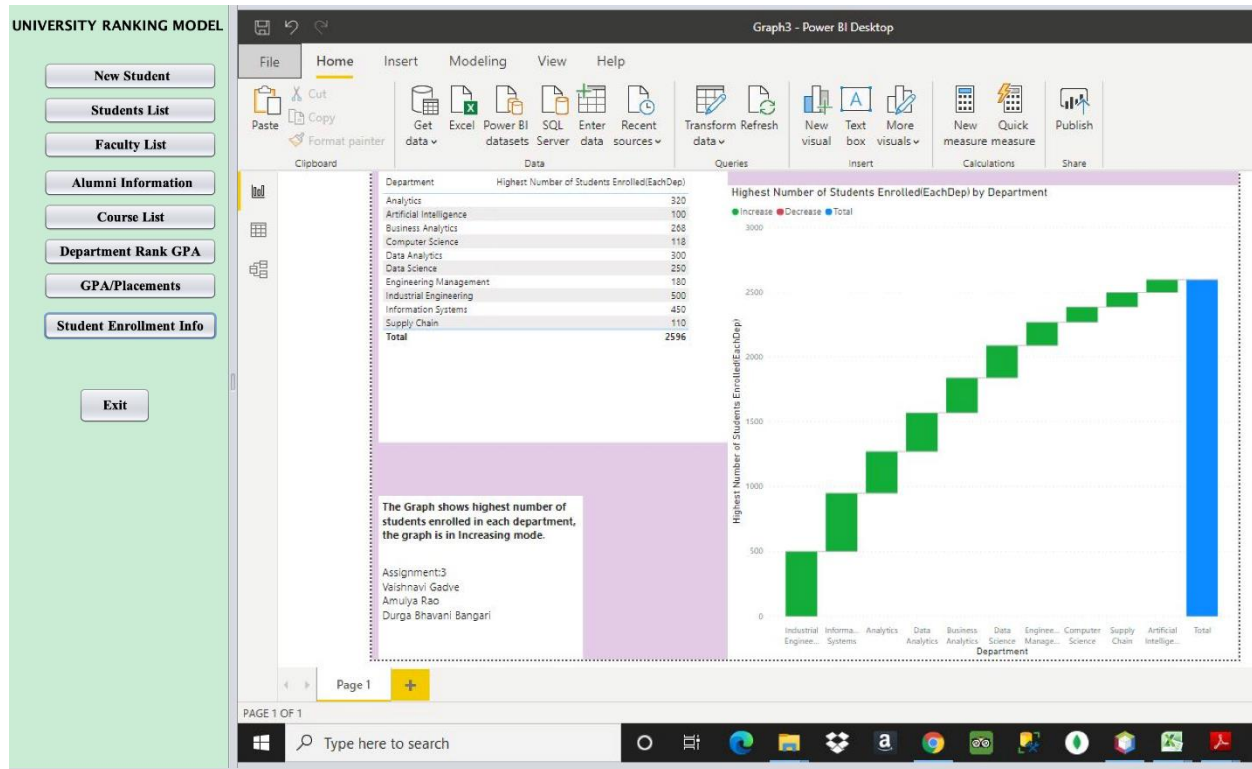
Newly Added Courses

Course Name	Course Number	Course Credit
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Below is the UI for department rank



Below is the UI for student enrollment info



Below is the UI for Placement w.r.t GPA

