PARSHVANATH CHARITABLE TRUST'S

A.P. Shah Institute of Technology
Thane, 400615

Academic Year: 2022-23
Department of Computer Engineering

CSL605 SKILL BASED LAB COURSE: CLOUD COMPUTING

Mini Project Report

- **Title of Project**   : **GRE-AT**

- **Year and Semester**   : 3rd year , 6th semester

- **Group Members Name and Roll No.** : Dhruvil Gandhi (44)
                                          Komal Chitnis(26)
                                          Jainam Gala(42)

Table of Contents

Sr. No.	Topic	Page No.
1.	Problem Definition	
2.	Introduction	
3.	Description	
4.	Implementation details with screen-shots (stepwise)	
5.	Learning Outcome	

Problem Definition -

In modern times, Education is on an ever-expanding scale, which is why for many education doesn't stop at graduation they tend to go for further studies i.e Post Graduation. In order to get admission in foreign universities for post-graduation, students need to appear for competitive examinations such as GRE (Graduate Record Examinations) The results of these competitive examinations play a crucial role for getting admission in such universities, which is why students need help inorder to get prepared for the exam and figure out which university is the best for them according to their results. Nowadays, students find it difficult to find sample papers or mock exams online. Also, after solving these sample papers or mock tests students find it difficult to figure out their weak subjects and strong subjects and prepare accordingly. It is also difficult for students to figure out the best university which they can get an admission in according to their scores. Our application will provide user with a sample mock test based on GRE and they will get their score and they can figure out their weak subjects according to the result graphs which will be made by plotly library, If the user has already appeared for the examination, they can also input their results to show their chances of admission in foreign universities.

Introduction –

As education is on an ever-growing scale today, hence many people opt to pursue post-graduate degrees or continue their study after graduating. Many graduate programs in the United States, Canada, and a few other nations require applicants to take the Graduate Record Examinations (GRE), a standardized test. The Educational Testing Service owns and manages the GRE (ETS). The Carnegie Foundation for the Advancement of Teaching created the exam in 1936. The GRE, according to ETS, attempts to evaluate students' long-acquired abilities in verbal reasoning, numeric reasoning, analytical writing, and critical thinking.

Specific algebra, geometry, arithmetic, and language components make up the GRE's content. The GRE General Test is available as a computer-based test that is given at testing locations and establishments that are owned or accredited by Prometric. The weight given to GRE scores throughout the graduate school admissions process varies greatly between institutions and between departments within institutions. A GRE score's significance can range from being only a requirement for admission to being a crucial selection criteria. There are three key sections of the test. Verbal reasoning, quantitative reasoning, and analytical writing.

For the Verbal Reasoning and Quantitative Reasoning measures of the GRE General Test, the reported scores are based on the number of correct responses to all the questions included in the operational sections of the measure.

The Verbal Reasoning and Quantitative Reasoning measures are section-level adaptive. This means the computer selects the second operational section of a measure based on your performance on the first section. Within each section, all questions contribute equally to the final score. For each of the two measures, a raw score is computed. The raw score is the number of questions you answered correctly. The raw score is converted to a scaled score through a process known as equating. The equating process accounts for minor variations in difficulty among the different test editions as well as the differences in difficulty introduced by the section-level adaptation. Thus, a given scaled score for a particular measure reflects the same level of performance regardless of which second section was selected and when the test was taken.

GRE-AT is developed for users preparing for GRE examinations and also for users who have already appeared and received their results and are trying to figure out which university is suitable for them. This website is basically a all-in-one destination for students who want to pursue post-graduation.

Description –

The website will be called "**GRE At**" and will be designed to help users practice for the GRE exam and get a better understanding of their strengths and weaknesses. Here is a detailed description of the website's features:

Home page: The home page will have a brief introduction to the website, with a call-to-action button for users to register/sign-up for a free account.

User registration/sign-up: Users will need to register on the website using their email address and a password. Once registered, they will be able to access the mock tests and other features of the website.

Mock tests: The website will offer a set of mock tests based on the GRE format, including Verbal Reasoning, Quantitative Reasoning, and Analytical Writing. Each mock test will consist of a set of questions with a time limit, similar to the actual GRE exam. Users can take these tests multiple times to practice and improve their scores.

Score analysis: After completing a mock test, users will be able to see their scores and a detailed analysis of their performance. The analysis will be presented using graphs and charts created using the Plotly library. This will help users identify their strengths and weaknesses and focus their preparation accordingly.

Personalized study plans: Based on their mock test scores and performance analysis, users will be provided with personalized study plans to help them improve their weak areas.

University admission predictor: If the user has already appeared for the GRE exam, they can input their scores and other details to get an idea of their chances of admission in foreign universities. The website will provide a list of universities based on the user's profile, along with their admission criteria and other relevant details.

Resources: The website will provide a list of resources such as recommended books, study materials, and online courses to help users prepare for the GRE exam.

Discussion forum: The website will also have a discussion forum where users can interact with each other, ask questions, and share their experiences and tips for preparing for the GRE exam.

Overall, the GRE Mock Test Hub will be a comprehensive website designed to help users prepare for the GRE exam and improve their chances of admission in foreign universities.
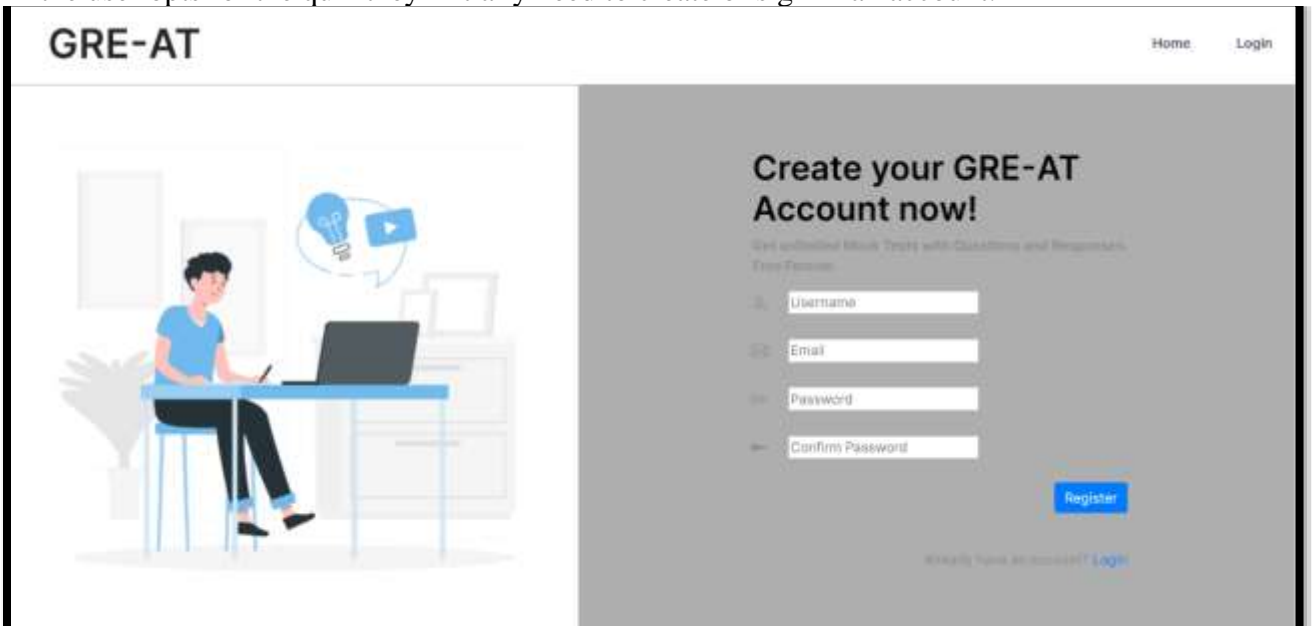
## Implementation details with screen-shots (stepwise) −

Learning Outcome – Half a page

This is the landing page that the user first sees when he/she opens the website. Here the user can either choose to opt for the quiz or directly predict their chances of admission using the form.

If the user opts for the quiz they initially need to create or sign in an account.

Login/ Register Page
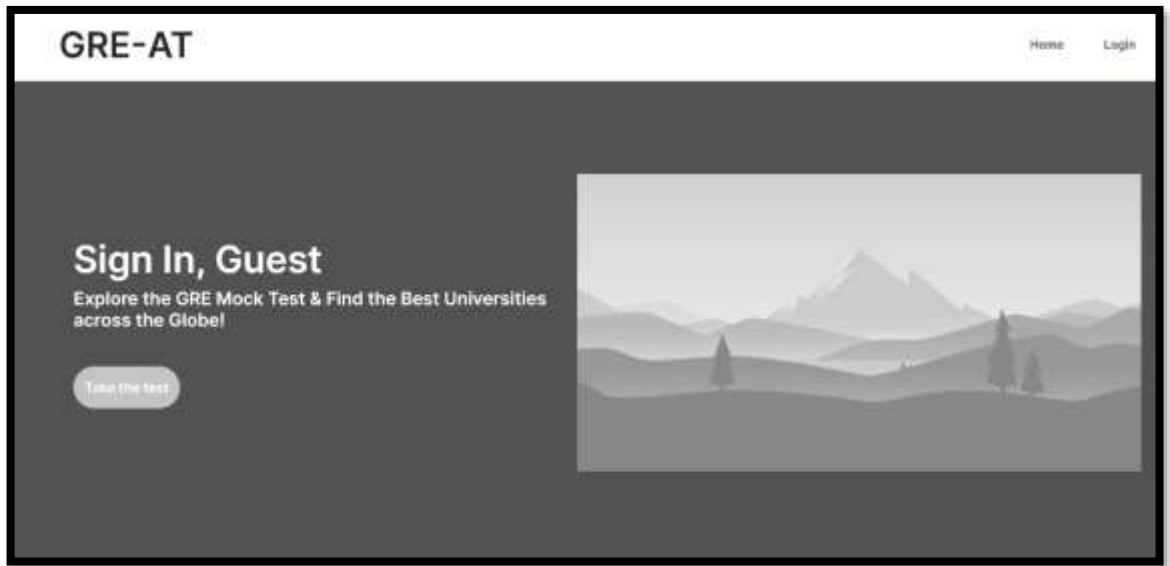
Quiz Module - Output

Enter details

Enter your GRE score here

GRE

Enter your TOEFL score here

TOEFL

Enter the rating you got for your SOP out of 5

SOP

Enter the rating you got for your LOR out of 5

LOR

Enter your undergrad CGPA

CGPA

If you have done research 1 else 0

Research

Predict Probability

Frequently asked Questions

What does this web application do? ⌄

We basically have a dataset with the following parameters like GRE score, TOEFL score etc and gives the output that is chance of admit in the range of 0 to 1. This dataset is then trained using our ML model which is currently using linear regression to predict the target column(Chance of Admit) and provide you with an idea about the chances in your favourite uni!

View Universities ⌄

Click here to view top 355 universities in North America !!

What are SOP and LOR scores? ⌄

Statement of purpose(SOP) and letter of recommendation(LOR) are rated out of 5 by some universities 1 being the lowest and 5 being the highest

---

GRE-AT   Home   Logout

Question

A positive integer x is a perfect number if the sum of all the factors of x, including 1 and x, is equal to 2x. Quantity A:The sum of the reciprocals of all the factors of the perfect number 28 Quantity B: 2

Quantity A is greater.   ○

Quantity B is greater.   ○

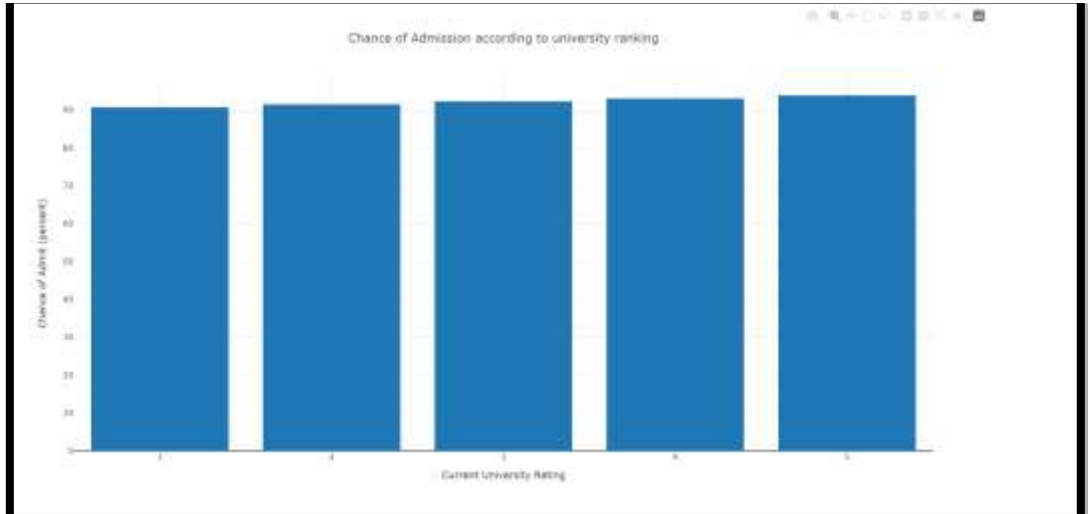The two quantities are equal.   ○

The relationship cannot be determined from the information given.   ○

Next

Model Prediction Form

The above image shows the prediction form which user needs to fill to view their chances of admission.

Model Output

The above image shows a graph output of our prediction model.

Learning outcomes-

Creating a website that provides users with a sample mock test based on GRE and enables them to figure out their weak subjects according to the result graphs made by Plotly library, along with the provision of admission chances in foreign universities, and hosting it on AWS can help you learn the following:

Cloud computing: Hosting a website on AWS requires knowledge of cloud computing technologies and services, including EC2, S3, and RDS.

Scalability: AWS allows for scalable hosting, so you can easily manage traffic spikes and ensure that the website remains available and responsive to users.

Security: AWS provides robust security features to protect against cyber threats, and understanding these features is essential for ensuring the safety and privacy of user data.

Server management: Hosting a website on AWS requires server management skills, including configuring and managing instances, databases, and storage.

DevOps: Understanding DevOps practices, including continuous integration and deployment, can help you streamline website development and deployment on AWS.

Analytics and monitoring: AWS provides powerful analytics and monitoring tools, allowing you to track website performance and user behavior, and optimize the website accordingly.

Overall, creating a website that provides users with a sample mock test based on GRE and offers data analysis and admission chances hosted on AWS can help you develop a range of skills in cloud computing, server management, security, DevOps, and analytics.