GE-103

College Predictor

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I. Introduction

Selecting a college and a branch is one of the toughest choices a student has to make in his life. College and branch play an important role in deciding any student's career. So, before making the decision one needs to do a high amount of research based on the student's rank and interest. Students had to spend a lot of time and effort analyzing the previous year's data of colleges and their respective branches. Here, our program comes into the picture to save the time and effort to analyze the previous year's data of colleges and their respective branches. In this program, we took the previous year's data for the closing rank of a branch in a particular college. Based on a student's rank, gender and category, they will get to know which college and branch they could expect.

II. Literature Review

There are various college and branch predictors available online. Sites like Shiksha, Unacademy Esaral, Collegedekho, etc. are some of the college predictors available online. These predictors take the rank of a student as input and predict the college and branch that the student might get. They predict these results by analyzing the previous year's data. Our program works on similar principles, it analyzes the previous year's data and predicts the college and branch of a student based on the rank given to it as the input. However, our program has some additional features; such as one can select a particular college and our program will predict the possible branches that they might get in that college based on their rank. Similarly, one can select a particular branch and our program will predict the possible colleges that they might get based on their rank.

III. Objective

Selecting a college and a branch is among the hardest choices a student has to make. Proper guidance is required to make these choices. Many students lack the proper guidance to make these choices. To solve this problem, we have made a college and branch predictor. The predictor is of great help in making the right choice. Our main aim is to precisely predict the college and branch that the student might get. To achieve this objective, we have built a program that systematically analyzes the previous year's data. We have fed our program with a sufficient amount of previous year's round-wise data present on the web so that users can also analyze the round-wise results. In the program, we have given the features of selecting college and branch according to the preference of the user based on their interest and rank. Our program will also take into account for some reserved seats based on the category and gender.

IV. Challenges

- One of the first and biggest challenges for this program is to read the previous year's data from a file type so, firstly we tried using .txt but we were facing challenges that, we were facing difficulties in comparing the rank and printing its corresponding institute and branch. So, we decide to use excel which has a .xlsx file in this file type we can select data cell wise which played a vital role in this program in taking data and printing institute and branch of the corresponding rank.
- One of the challenges faced by us was to analyze the rank in the given set of data. The rank was to be compared with a large set of data and search for the college as well as the branch that the student may get with their respective rank.
- We added additional features like category and gender-based quota. This further complicates the procedure to find and list the college and branch from the given field of data.
- Many students want a specific branch or a specific college. For this, we had to search for that specific branch from all institutions or that specific institution and all the branches in it at a given rank.
- Overall we tried to reduce the time complexity and tried to make our code as efficient as possible.

V. Limitations

- The prediction that our program makes is not absolute, it may deviate a little.
- We tried to reduce the time complexity of our program as much as possible, but if the data that has to be analyzed is too large then the program takes quite a time to give some result
- As we are reading data from a file so, a specific type of structure for storing data in the excel sheet is used because we have written the program for a specific type of stored data structure.

VI. Conclusion

We have made a college and a branch predictor by this we tried to make students life easy after the examination. Finally, the result achieved by our program is that it can predict the college and branch based on the input given to it such as rank, category, gender, college, and branch preference. This prediction is based on the previous year's data and hence may deviate a little. In our program, we have taken data from the site of the Joint Seat Allocation Authority (JOSAA) to demonstrate our program. A student with the first rank will have the choice to choose any college and branch from all the available colleges and branches in it. There would be a rank where a student will get only one college and branch corresponding to that rank. Data has been stored in Excel to extract the data systematically. The format of data should be specific that should not be in random format if that is then our code will not read that data properly.

VII. Acknowledgement

We like to share our sincere gratitude to all those who help us in the completion of this project. During the work, we faced many challenges due to our lack of knowledge and experience but these people help us to get over all the difficulties and in the final compilation.

We would like to thank Dr. Sudarshan Iyenger sir for his governance and guidance, because of which our whole team was able to learn the minute aspects of project work.

We would also like to show our gratitude to our mentor Miss. Nivedita Sethiya for their continuous help and monitoring during the project work.

At last, we would like to thank the management of the Indian Institute of Technology Ropar for providing us with such an opportunity to learn from these experiences.

VIII. Reference

https://josaa.admissions.nic.in/Counseling/seatallotmentresult/currentorcr.aspx