A/L's best-chance finder

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Introduction

A student who expects to sit in the A/L, becomes a student who expects results after sitting in GCE Advance Level examination. During this period, students remain in their home or participating in other courses, though with a lot of anxiety in their mind, whether he or she will be eligible for a university to follow a course in a government university.

Once the result is released, nowadays students are keen to see their **z-score** in the first place rather seeing whether they got distinctions or passes as time before. This is because of the recently implemented z-score system based on each district and each course have a minimum z-score for eligibility.

This software, provides an idea which courses are eligible for a student based on the z-score and it is provided in a user-friendly way so that a student could observe the chance of getting selected for each course easily while this encompasses the rules for the eligibility which are supported by the Department of Examinations.

This software can be utilized by any academic or non-academic personal in 365 days in 24 hours as a free software not just to observe the best chances but also to predict the chances for courses if anyone has an idea about the z-score he/she is expecting.

This report overall provides the reasons for issues and possible solutions using **c language programming** to reduce the complexities faced by a student in finding a government university course.

Problems facing and reasons for developing the software

There are two major issues, a student faces when finding the course which he can be eligible for after or before receiving exam results.

1. **Finding the required materials to exactly know about the eligibility to courses (according to the rules of DoE).**
2. **Even after finding, it is being hard to read and analyze the situation mathematically for better information.**

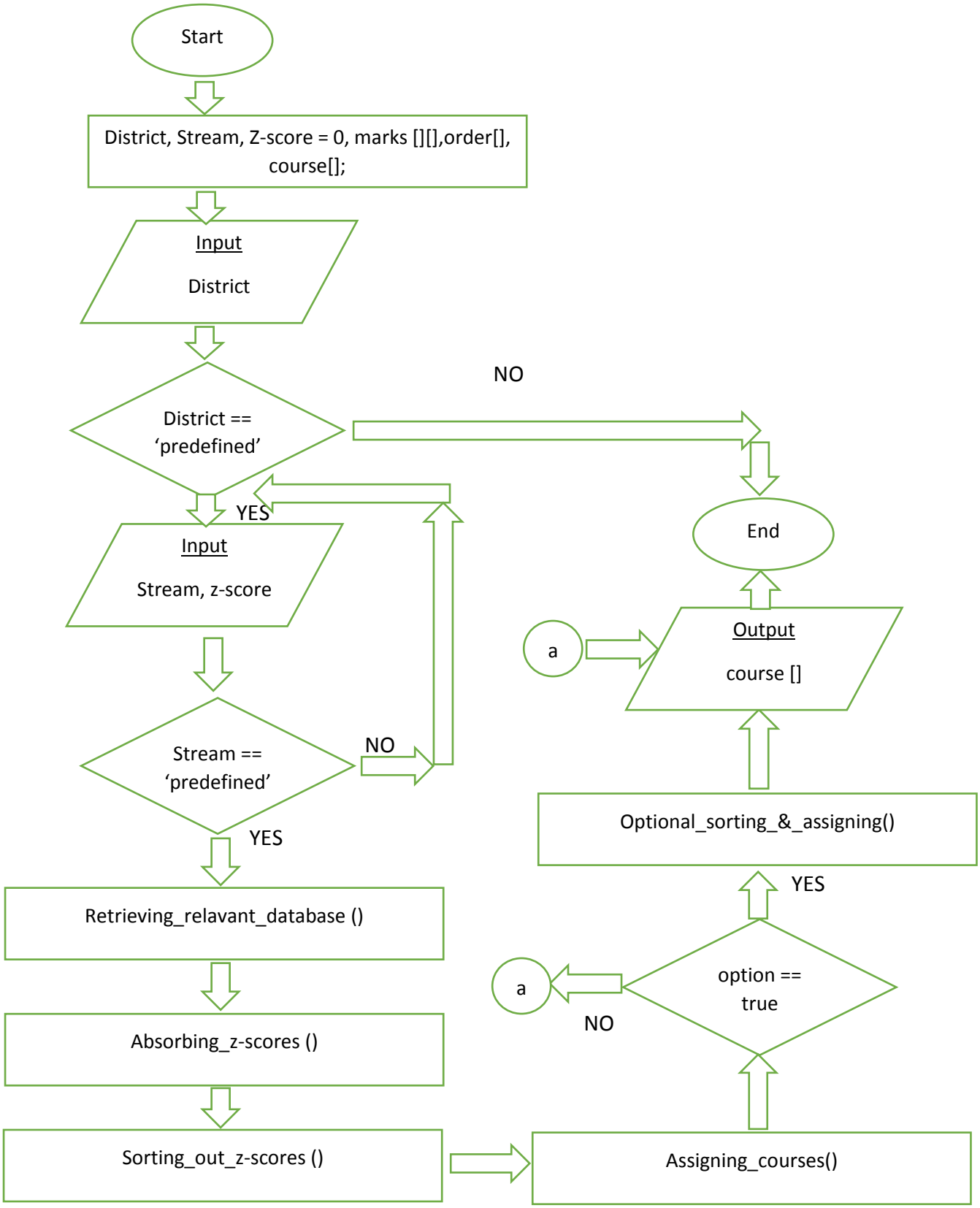
Coming to the first issue, most of the students have no idea on selecting the correct course after A/L s specially in the rural areas. In the web site of the education department, the rules for eligibility are hard to be found or not available at all for the students. Usually a book is printed by DoE for that which should be bought for money. Also, students must search the web or for the pdfs which includes the z-scores to find at least the courses available for them. Or else the information of the university courses is mostly included not in an order so that a student must go through all the university web sites for qualifications which are not included for most of universities.

Eg: If a rural boy who did mathematics for A/L with ICT except chemistry, wants to find out the eligibility for some courses as he did IT, there is no way he could manage that because of less information in web sites and the book is hard to be bought or unavailable in that area.

Even if the information is found somewhere, a student will find it's hard to analyze.

Eg: A student has a z-score of 0.987, now he wants to find the eligibility in ascending order, with how much difference to required z-score is there (for Ruhuna engineering the required z-score is 1.432, now to get a clear idea about eligibility he must substract and see how much he lacks for Ruhuna Engineering). Likewise, when it comes to 30 - 40 courses he should be able to remember every difference to analyze the eligibility.

Solving the problems



There were two major problems discussed before in the report. The solution for the first one is shown on the flow chart in the page before. There is a database retrieval happens from outside c programming platform (usually data entered to a normal text file) and in that text file the data (Z-scores for subjects) is included in a manner so that the c program can identify the minimum z-scores for courses easily and assign them to the predefined subjects in the c program.

From this, the z score for particular subject is assigned to the name of the course in an array. (The required information to the program is referred by some sources) Then as the output, the user can read the name of the course and find the eligibility.

As the solution for the next issue, there are lot of algorithms used to sort out the data. The user will not be able to sort out 30 - 40 subject data at once. In the software, an algorithm is used to sort out the data in ascending order according to the z-scores. This will provide good information to the student how much he lacks or is ahead of the z-score margin of a course. An optional way of outputting data is provided according to the student's consent.

Other than this there will be more algorithms used for inputting, calculations and assigning values to multi – dimensional arrays, use of user-defined functions for each set of algorithms and set of data bases are there for each subject (mathematics, biology and commerce only).

(Above flow chart is prepared only to show the basic functions of the program)

Conclusions

- Algorithms included in the program can sort out the results in two orders which makes it easy for reader to analyze.

- Program facilitates the students with every required information to choose the best-choice for the university including z-score

- The database in the program is set to process the output easily to the reader.

- Some algorithms are there to make the software more user-friendly and to improve the software with minimum bugs.