ERS

EXAM RESULT SYSTEM

NAME : C. DILAKSHI KAUMADI ABEYSINGHE

AR : 96301

AF : 18 / 14335

DEPARTMENT : DEPARTMENT OF ICT - 1011.03

TABLE OF CONTENTS

1. PROBLEM DEFINITION

In the present, the grades of the undergraduates are released by the university, and the students are unable to keep track of their GPA, overall results, rank, etc. unless the University releases the results. Also there are many issues with calculating the results manually. Some of them can be listed as follows.

- **There may be some mistakes in calculating the results.**
- **Data has to be constantly duplicated. This is time consuming and resources are being wasted.**
- **The office space has to be increased as more space is needed to store filing cabinets as the amount of paper increased.**

2. PROPOSED SOLUTION

This is a system to analyse examination results in any university. The user will be able to check their semester results, GPA, class, etc. Therefore, students can use this system more effectively. Under this system anyone with a student's examination number can obtain the results through the system. Lecturers and the staff can also access this system. They can obtain a summary of the student's results and determine the level of education of the students in their faculty or university.

This Exam Result System is a python based project. Because of this system.

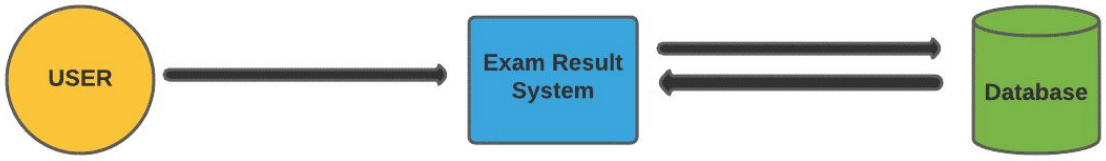
- The results can be calculated accurately and it is easy to use.
- Duplication of data will be reduced as record keeping will be done more efficiently as adding, deleting and updating information will reduce the use of stationary by reducing cost as well as be less time consuming.
- Overheads will be drastically reduced. This will result in a reduction in office space and equipment. Because this is fully functional through a database.

3. USERS (POSSIBLE ACTORS) OF THE SYSTEM

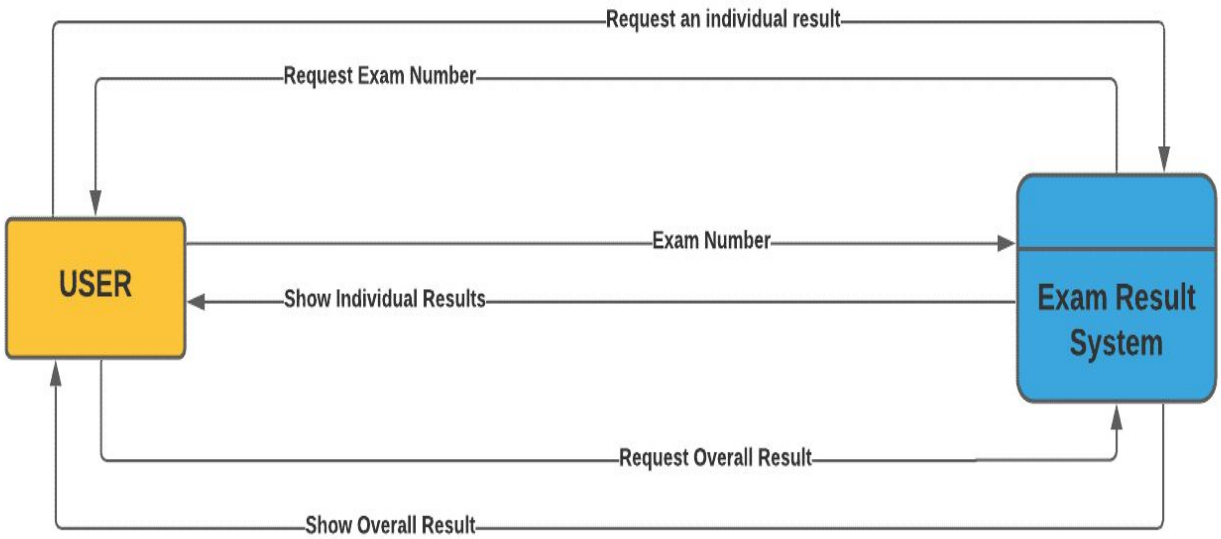
- Undergraduates
- Lecturers
- Office Staff

4. SYSTEM OVERVIEW

4.1 SYSTEM HIGH LEVEL ARCHITECTURE

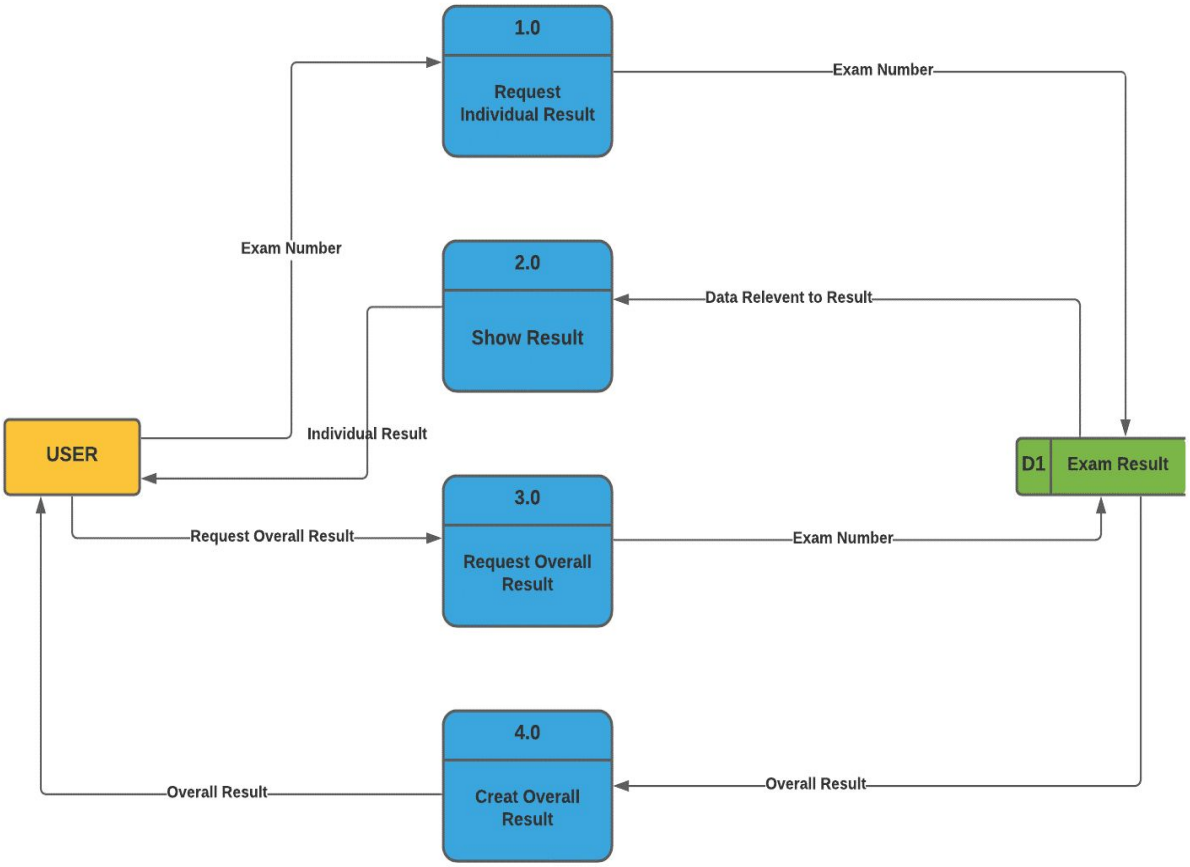


4.2 CONTEXT DIAGRAM



* There are seven individual results types *

4.3 LEVEL 1 DFD



5. FUNCTIONAL & NON - FUNCTIONAL REQUIREMENTS

5.1 FUNCTIONAL REQUIREMENT

- Calculating Semester Results of an undergraduate
- Calculating Final Results Results of an undergraduate
- GPA Calculate
- GPA Distribution
- Class Calculation
- Class Distribution
- Semester Rank Calculate
- Subject Analysis
- Overall Ranking Summary

5.2 NON - FUNCTIONAL REQUIREMENTS

- Performance - The system should perform well by responding to the various events within minimum time.
- Availability - The system is available to use when needed.
- User friendly - The system is very interactive.
- Maintainability - Data are available.
- Reliability - The system shall be able to process all the work correctly and completely without being aborted.
- Availability - functionalities must work without any system failure for a period of time in order to achieve maximum availability.

6. RESOURCE REQUIREMENTS

1. LANGUAGE

- Python 3
- MySQL

2. SOFTWARE

- Pycharm IDE

3. HARDWARE

- Personal Laptop

4. CLIENT

- Processor : Intel(R)Core(TM)i5
- RAM : 4.00 GB
- Hard Disk : 128GB
- Operating System : Windows 10

7. SUMMARY

With the advancement of information technology in society, all our activities have become mechanized. Accordingly, we use a variety of systems to facilitate day to day operations. There are many activities based on systems in universities today. Therefore the staff has to work hard to properly calculate the examination results of university students and return them to the students in a very clear and accurate manner. But it does take a lot of time and effort and the cost goes up. Therefore, if this process is systemic it can be done very successfully. That was also the main purpose of this system I designed. Actually, undergraduates, lecturers as well as staff members can access this system.