

Student Project Allocation for Monitoring Duplication

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Abstract— This project involves the development of a web application student project allocation system for use in an academic institution. It is based on an existing program which was recently developed at the University for Development studies for project allocation at the department of Computer Science. This existing system takes students list and allocates supervisors to students. The new system uses the same optimization procedures in a more general setting, allowing academic administrators to manage supervisor and project allocation. Thus, the focus of this project is not on the optimization of algorithms, but rather on generalizing, re- designing and re-engineering the existing system which will result in a flexible and easily re- configurable system for use in a variety of university settings. The appliance is secured so only the people responsible are allowed to perform the allocation and to view the sensitive data. The front-end enables the administrators to configure the system in response to changing project controls and task desiderata. The system can also be used as a reporting tool through towards project and its allocation details. The system is able to check duplications by disregarding repeated data but allows different students from different supervisors take the same project topic at a time. The system was tested using data that simulate actual real-time use after its completion.

INTRODUCTION

Colleges, Universities or any Educational Institutes conduct projects for the better understanding of the practical approach towards the subject in the real world which involves a lot of tasks like abstract or synopsis evaluation, thesis correction and updating the proposed module with assigned supervisors. In many tertiary institutions in the country, students seek a project in a given field of specialty as part of the upper level of their degree course of study. Usually, a project are often filled by at the most one student, though in some cases a project is suitable for quite one student to figure on simultaneously. to offer students something of a choice, there should be as wide a variety of obtainable projects as possible, and

in any case the entire number of project places shouldn't be but the entire number of scholars. Typically, a teacher also will order variety of projects but doesn't necessarily expect that each one are going to be haunted by students. Each student has preferences over the available projects that they find acceptable, whilst a teacher will normally have preferences over the scholars that he or she is willing to supervise. . There can also be upper bounds on the amount of scholars which will be assigned to a specific project, and therefore the number of scholars that a given lecturer is willing to supervise With the advancement in file saving and file retrieval system, an institution cannot afford to be ignorant of the basic tool, which is the driving force behind technological oriented administration. A lot can be achieved if an institution should have a well-organized management system. Students project can easily be allocated to each or group of students without the problem of delayed project allocation from the supervisor or conflict of topic between two individuals or group of students in the same department. Students update can be easily accessed if the database system is enhanced. This project considers the ways of allocating student project in the university.

METHODOLOGY

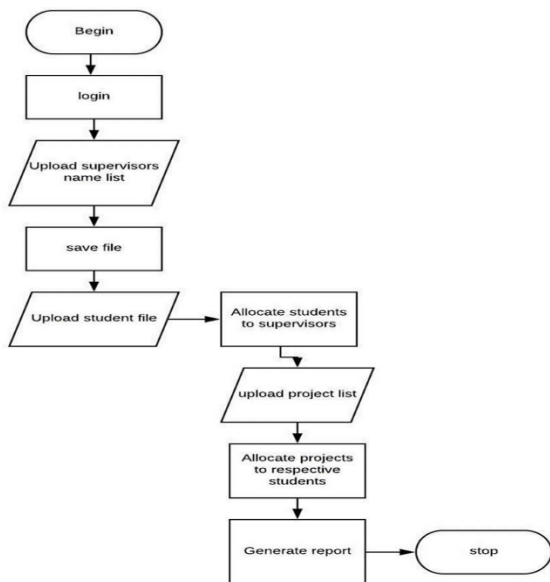
The design of a system starts with incorporating all of the data and procedures into functional program design. The researcher adopted a developmental research approach that considers design, development, evaluation and implementation. In connection with this, the throwaway prototyping software development methodology was used and some of their schemes are discussed below.

- **Planning:** This is the fundamental phase that considers why a student project allocation system should be built and how the developers are going to tackle the various tasks in terms of project initiation and/or management.

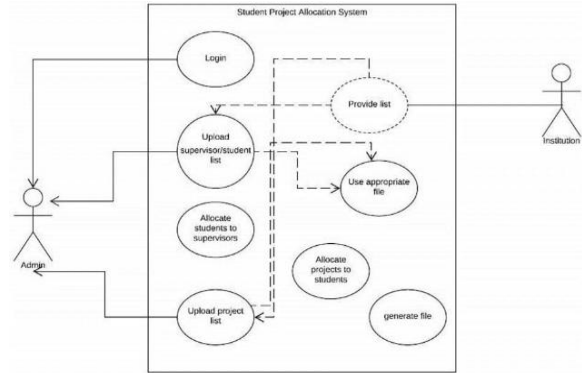
- **System Design:** The goal of the design phase is to transform the requirements specified into a structure most suitable for the implementation in a particular programming language. The inputs from users and information gathered in requirement gathering phase are the inputs of this stage. The output of this stage comes in the form of the logical design and/or physical design.
- **Coding:** This step is also known as programming phase. The purpose of coding is to transform the software design into source code using a suitable programming language and developing error-free executable programs efficiently.
- **Testing:** An estimate says that 50% of whole software development process should be tested. Errors may ruin the software from critical level to its own removal. Software testing is done while coding by the developer and thorough testing is conducted by testing experts at various levels of code such as module testing.

The prototyping model involves building a prototype before building the actual software. The prototype displays the functions of the product but may not actually hold the logic of the original software. It provides scope for understanding customer requirements at early stage and then proceeding accordingly. Also, errors can be detected much earlier. This model is used for applications which tend to have a lot of user interactions.

WORKFLOW DIAGRAM



USE CASE DIAGRAM



SYSTEM SCOPE

This student allocation system is inclined towards easily allocating students to supervisors and also allowing supervisors provide recommended project topics to their respective students within a reasonable time frame. The system was designed to be thorough without being too complex and cumbersome, robust enough to work well with minimum input. Having a well-designed allocation system endowed with extensive database use is in the best interest of both supervisors since other difficulties that come with final year projects can be reduced drastically if not totally avoided.

CONCLUSION

Projects contain extremely valuable information since they report the results of first-hand research information conducted by students within any specific department. It is therefore important for a system to be developed and implemented in order to allow other researchers, students and academic staff, easy and prompt access to this information. The allocation of projects is part of a degree course for many tertiary institutions and before the allocation of projects to students is done, a series of steps need to be followed. Many constraints need to be taken into consideration to achieve a fair allocation. The allocation of project causes many problems as same constraints may not be satisfied. These problems emerge mainly due to the increasing number of students which leads to an increase in the complexity in the allocation of the projects. The aim of this project is to save time by producing reports on the assignment of project topics and project supervisors

and also develop a better system which solves these problems or reduce them significantly.

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