SCOPE STATEMENT

Project Title: Automated College Timetable Generator

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Project Summary and Justification: My partner and I decided to make this project, the *Automated College Timetable Generator.* This would be a great help to our institution, Gingoog City Colleges, in order to help this Institution to avoid various clashing of classes either at the same room or with same instructors having more than one class at a time. The manual system of preparing timetables in colleges with large number of students is very time consuming and usually ends up with. Only the administrator and the faculty shall have access to the system. They should have at least a little knowledge in the computer, like creating a password and username in order to log-in. Furthermore, the system shall have a friendly user interface so that it will not be confusing to use and/or simply understandable. And for easy accessibility, records can be easily accessed and store information respectively. The budget for this project is ₱ 25,377.89.

Product Characteristics and Requirements:

1. Security: Automated College Timetable Generator must provide several levels of security. Only the admin will have access to the automated college timetable generator when he/she enters security information to access this system.
2. Interface: The system will be giving a very friendly user approach for the users. The users (the administrator and the faculty) should have a little knowledge of computers so that he/she won't have a hard time on how to run the system.
3. Search: The Automated College Timetable Generator must include a search feature for the admin to search particular data for example the schedule of classes.
4. Input Data: The input data module can be described by a type of data given, the data contains:
    - ❏ Person: which describes the name of lecturers.
    - ❏ Subject: which describe the name of the subjects belonging to desired year and semesters.
    - ❏ Room: which describes the name of the class.
    - ❏ Time Interval: it's a time slot with a starting time and duration.

5. Filter and Retrieval: Firstly, we should do timetables for first year classes so by entering details of first year timetables of all sections. Retrieve the first year timetable time slots and assign the time slots to the respective faculty. Retrieve the subjects allotted for first year faculty and start filtering their subjects in the timetable.
6. Database Capabilities: The system will have a well designed database to store all the information which will be entered as the input. Separate database maintaining basic information, subjects, teachers, batches and their associations and other details. Also, a database for holding generated timetables and for storing required timetables.
7. Processing Capabilities: The system will have algorithms to process all the data present in the database and keeping in view the various constraints like that a teacher should not have two consecutive lectures/labs, students have minimum at least 20-30 minutes gap, proper rooms are allocated for the lectures and tutorials, labs are used optimally so that they are used for the maximum possible time, it will generate the timatable.
8. Admin Modules:
    - ❏ Login: the administrator will login to their accounts using username and password
    - ❏ Notify Faculty: notification about class schedules, rooms and batches will be sent to the registered faculty so they will be updated about the probable timetable
    - ❏ Details: input basic information (e.g. subjects, teachers, rooms, time slots, and batches), also updates timetable (e.g. regular holidays, school holidays, mass schedule, and exam schedule)
    - ❏ Managing Timetable: keeps track of timetable, particularly in assigning time slots, room and subjects to registered faculty
9. Faculty Modules:
    - ❏ Login: the administrator will login to their accounts using username and password
    - ❏ Notification: upon receiving a notification (regarding the assigned schedule), the faculty shall notify the admin if either he/she accepts, rejects or wants or needs an adjustment on his/her class schedule
    - ❏ Search: able to search for particular time slot and profile
10. Java: Java is a general purpose programming language that is class-based, object-oriented, and designed to have as few independence as possible. It can be used to create applications that may run on a single computer or be distributed among servers and clients in a network.

11. MySQL: MySQL is a relational database management system based on SQL. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications. The most common use for MySQL however, is for the purpose of a web database.
12. Windows 10: It is a series of personal computer operating systems produced by Microsoft as part of its own NT family of operating systems. One of its most notable features is its support for universal apps.
13. Dual-Core Processor: It is a CPU with two processors or "execution cores" in the same integrated circuit. Each processor has its own cache and controller, which enables it to function as efficiently as a single processor.
14. Hard Disk Drive (50gb): Abbreviated as HDD, it is the main and largest storage device of the computer. It stores permanent and is present even if the computer is turned off. For our system, we will be going to use a 50gb hard disk drive.
15. Memory (2gb): This is to provide quick read and write access to a storage device. The computer uses RAM to load data because it's much quicker than running that data directly off of a hard drive.

Summary of Project Deliverables

Automated Timetable Generator-related deliverables: Charter, team contract, scope statement, WBS, schedule, progress reports, final project presentation, final project report, lessons-learned report, and any other documents required to manage the project.

Product-related Deliverables:

1. Survey: Survey current clients to help determine desire content and features for this system so it can help us to provide what can really satisfy them by producing a reliable system.
2. Project benefit measurement plan: A project benefit plan will measure the financial value of automated college timetable generator and when it will be ended, in this way this will help us to be responsible in a way that we will consume our time productively to meet our deadline.

3. Test plan: The test plan will document how this system will be tested, who will do the testing and how bugs will be reported, this can also help to determine what particular features need to improve or change if something went wrong during the testing.

Project Success Criteria: Our goal is to complete this project within 4 months for no more than ₱ 25,377.89. The project manager emphasized the importance of the project and hoped that before the first week of March this automated college timetable generator is complete. If this project takes a little longer to complete or costs a little more than planned, we will still view it as a success if it has good results that will help us to make this system known in a way that it has a good background.