

Functionality

This system's main feature is its role based security, whereby any members could be assigned a role, and each role has a specific function within the system. There are 4 basic roles within the system: Course Leader (CL), Course Moderator (CM), Director of Learning and Quality (DLT), and Pro-Vice Chancellor (PVC). Each and every role has its own functions: CL has the responsibility to submit a Course Monitoring Report (CMR), and the CM has the responsibility of approving the submitted CMR. The DLT has a responsibility of giving a feedback to the approved CMR, while the PVC supervises everything. There is also an administrator account for all the data management functions. As such, new members could be registered as staff members, and then assigned to their new roles. Course information that is ever changing could also be managed via the administrator account.

The Course Leader has the sole responsibility of submitting a CMR in order to track the status of a course. The course leader has to fill in every required field, as a validation check requires all data to be valid before adding the details into the database. All essential information pertaining to the integrity of the data within the database are automatically generated, as such there is minimal chance of a human error compromising the integrity of the database, such as the wrong entry of an identification value or values that could cause cascading effects down the line. Once all fields are completed and valid, the report is then submitted and added into the database, and also sending an email to the CM notifying that a CMR for that particular Academic Year has been submitted and waiting approval.

The CM then has the responsibility of approving the report. The CM could either access the report via an email link, or by logging into the system and retrieving the report manually. Since the CM's role is to review the report, all fields are not editable, hence further reducing the chance of an accidental value change of the original report. When the CM is satisfied with the report, all the CM has to do is to click an Approve Report button, which will then mark the report as approved, and then send an email notification to the DLT notifying the DLT that the report is ready for some feedback.

The DLT has the responsibility of giving a feedback to the approved report, as the DLT can only see approved reports. However, the DLT could access any approved report from any faculty. The DLT is also able to review all the information in the report, and so provide a feedback in according to the report. The DLT only has a deadline of 2 weeks (14 days) to provide a feedback on the report. If the deadline is passed, feedback submission would be

disabled for the DLT. Once the DLT submitted his/her report, the database would then record the feedback, the date of feedback, and who provided the feedback. Once that's done, the system would then send an email notification to the CM, CL, DLT and PVC indicating that the report has been given feedback.

The PVC has no particular functions in this system, only that the PVC is responsible for overseeing the whole process, as email notifications are still sent to the PVC. However, the PVC is on the same role ranking as the DLT, whereas the CM and CL are on a lower level.

The email notification system used by this Course Monitoring System utilises the SMTP server of Gmail, but Gmail has some settings needing to be edited before being able to use their service, of which we found out after some failures. Among some of the settings would be having to lower their security settings on the email account, allowing this system to be able to use that email account to send emails.

The system also provides the user to login with a guest account to be able to view the exception and statistical reports to see the current statistics of the CMRs, or to view some issues with the current staffing, such as courses without a Course Leader. There are 3 statistical reports as well as 3 exception reports, with all figures automatically calculated by the system.

The first statistical report is the number of completed CMRs for each faculty for an academic year. Only CMRs complete with DLT feedback is counted as a complete report. The system would count the total number of these completed reports within a given academic year.

The next statistical report is the percentage of completed CMRs for any faculty for any given academic year. The system would count the number of completed CMRs like above, but now, instead of returning the whole figure, the system would divide it by the total number of CMRs, be it complete or not, and then return the percentage figures.

The third statistical report is the percentage of CMRs with responses. The responses here indicate that a CM has already reviewed and approved the CMR, waiting for the DLT to give a feedback. The system utilises the same data collection method as with the second statistical report.

The first exception report is the list of courses without a Course Leader or Course Moderator. This is quite straight forward, as the system retrieves a list of courses without either of these positions and then display them in a list format.

The second exception report is the list of courses that have not submitted a CMR for a given academic year. The system cross checks the reports submitted versus the courses that a CL is in charge of. The courses left out by the cross checking is deemed to have not submitted their own CMR, and thus is retrieved and displayed.

The third exception report is the list of courses of which their submitted CMRs have not been given a response i.e. an approval from the Course Moderator. The system checks for these reports and then calculates the day difference from when the report was submitted to the current date, and the difference is then displayed alongside the course name.