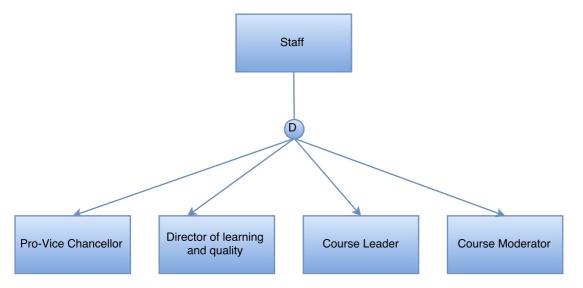


- Users are divided into three role. Admin, Staff and Guest.
- Admin, Staff and Guest have same primary keys with User.



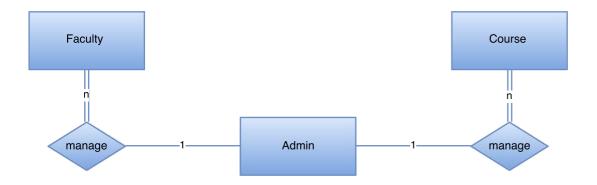
Staff are divided into four roles: PVC, DLT, CL, CM.
PVC, DLT, CL, CM have same primary keys with Staff.



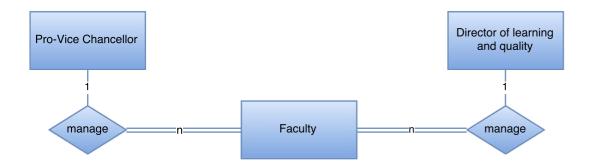
- •The relation between User and Report is many to many. An user can view many reports and one report can be viewed by many users.
- User can view reports base on their roles in system.



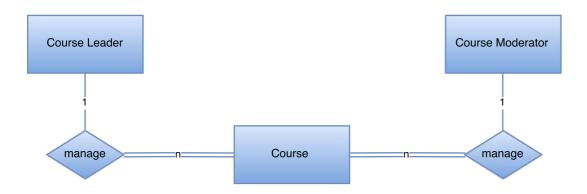
- Relation between admin and staff is one to many. One admin can manage many staffs but one staff can only be managed by one admin.
- The management of admin include assigning staff to faculties, courses, adding new staff, changing information, deleting staff...



- The relation between Admin and Faculty, the relation between Admin and Course, both are one to many. One Admin can manage many faculties and courses but one faculty can only be managed by one Admin and one Course also can only be managed by one Admin..
- The management of Admin with faculties include creating new faculties, updating information and assigning PVC and DLT.
- The management of Admin with courses include creating new courses, updating information and assigning CL and CM



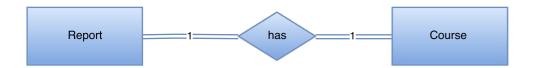
- The relation between PVC and Faculty, the relation between DLT and Faculty, both are one to many. One staff can be PVC or DLT to manage many faculties but one faculty can only be managed by one PVC and one DLT.
- The management of PVC and DLT with faculties include receiving approved reports and commenting on them.



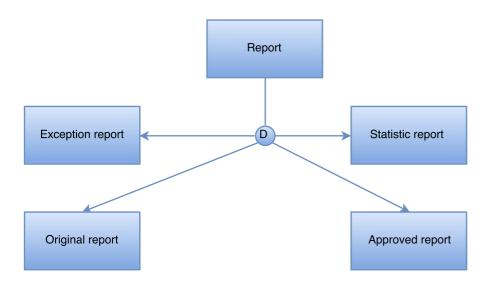
- The relation between CL and Course, the relation between CM and Couse, both are one to many. One staff can CL or CM to manage many courses but one course can only be managed by one CL and one CM.
- The management of CL with courses include creating original reports and sending them to CM. The management of CM with courses include receiving original reports from CL, approved them and send to PVC and DLT of the faculty that the course belong to.



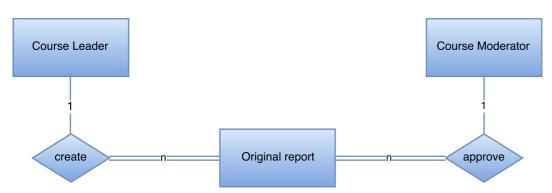
- Relation between Faculty and Course, the relation is many to many. One faculty can have many courses and one course can belong to many faculties.
- When admin create courses, he will assign them to faculties.



• Relation between Course and Report is one to one. Each course has only one report created by CL at the end of the course.



- Sub-type between Report, Original reports, Approved reports, Statistical reports and Exception reports.
- Report are divided into four types of reports: Original reports, Approved reports, Statistical reports and Exception reports.
- Original reports, Approved reports, Statistical reports and Exception reports have the same primary keys with Report.



- The relation between CL and Original report, the relation between CM and Original report, both are one to many. One staff can be CL for many courses so one CL can create many Original reports (for many courses), one staff can be CM for many courses so one CL can approve many Original reports.
- CLs have to create reports at the end of the course and send to CMs to approved.



- Relation between Original report and Approved report, the relation is one to one. One original report can only change into one approve report and one approved report can only be from one original report.
- CL create original report and send to CM CM approve and original report

change into approved report. Approved report will be sent to PVC and DLT.



• Relation between DLT and Approved report, the relation is one to many. One staff can be DLT of many faculties, each faculties have many courses so one DLT can comment on many approved reports but one approved report can only be commented by one DLT