Project brief: Develop a University System

Registration:

* Every new student needs to register before accessing the system.
* Registration requires a name, email, and password. should validate the credentials before registration.
* What credentials should be validated?
  + Emails should end with **@university.com**
  + Emails shouldn’t have any numbers only letters and dot
  + Passwords:
    - Should start with an upper-case letter
    - Contains at least 5 letters
    - After the string of letter characters it should have >= 3 digits
* The output of registration will be a unique 6-digit ID. The range of IDs will be 1 to 999,999
  + If ID generated is less than 6 digits then prefix it by ‘0’ for example: 002345

Login:

* Login credentials needs to validated against each student
* Single semester enrollment. Each semester should have 4 courses

Dashboard for students (CLI):

* Available functionalities for students:
  + enroll subject
  + Unenroll a subject
  + view current enrolment list
  + Change password
* System functionalities:
  + Notify if enrolment > 4 subjects
  + Create a subject with random 3 digit ID
  + Upon enrolment, generate a random mark between 25 to 100
    - Assign grade according to the marks ( refer UTS grading system in assignment doc)

Dashboard for students (GUI):

* Available functionalities for students:
  + Login window
  + Enrolment window
    - Enrol in a maximum 4 subjects
    - View enrolment list
* System functionalities:
  + Validate login credentials
  + Notify if enrolment > 4 subjects
  + Handle exceptions for empty login fields

Login for admin:

* Generate random credentials for the admin
* Validate credentials before logging in

Dashboard for admins:

* Available functionalities for admins:
  + View all registered students
    - view students by grade
    - view students in pass/fail categories according to their set criteria
  + remove student record from database

Functionalities for University class

* handles the creation and destruction of courses