**Course Manager Group-Work-assistant (CGA) – Project Description**

The Course Manager Group-Work Assistant (CGA) is a relational database-driven web application. This application consists of a set of tables and a web-based user interface that support the system's different activities and services, such as allowing teammates in a course supervised by a course manager to share information and ideas via pages and files.

The system is built using a role-based access control (RBAC) paradigm, which means that a single user can have several system access roles. System Administrator (SA), Course Instructor (CI), Course Teaching Assistant (CTA), and Course Student are the four jobs that have access to the system (CS). For each of these access roles, the system supports a wide range of functionalities, as shown below:

* System Administration
  + Can add new users (TAs and instructors, students, and groups)
  + Can add new course, course section, term dates
  + Post notices to all current users (read only)
  + Uses can be associated with one or more course in the same term
  + **Default administrator**: username is ‘admin’ and password is ‘admin’
    - Username and password must be changed in the first login
* Course Instructor
  + Can add and modify students, and TAs
  + Can assign TAs for a course or group
  + Can add and modify groups
  + Can add groups in the course-section
  + Can add group marked entities (assignments and projects)
    - Create discussions, comment, and add files
  + Can access any discussion, comment, and provide answers
    - Can be accessible to one, multiple, or all groups
  + Can assign group leader
  + Summary page of all marked entities and audit of it
    - File name, who created it, who download, replaced, delete
* Course Teaching Assistants
  + Access contents created by any group (read only)
  + Can access any discussion, comment, and provide answers
    - Can be accessible to one, multiple, or all groups
  + Summary page of all marked entities and audit of it
    - File name, who created it, who download, replaced, delete
* Course Students
  + Privileges should end at the end of the term (defined by administrator)
  + Can share information and ideas via pages and shared files with other group members
  + Can upload submissions files for the assignments/projects
  + Summary page of all marked entities and audit of it
    - File name, who created it, who download, replaced, delete

The CGA system provides services such as:

* Post and email notices of the group members, agenda, and minutes of the meetings
* Set up a course section and the instructors for it
* Create poll for various options
* Chat
* Files
  + Files uploaded by teams can have a profile (indicates who can do what with it)
  + Can be classified as view only, download, update (replace), or delete
* Internal mail
  + Inbox, sent
  + Can send private message to group members
* Homepage
  + Show the best and latest posts from their groups and friends

The user interface, processor management layer, and database management tier of the CGA system are all planned and implemented using a traditional three-tier client-server architecture. HTML pages make up the client-side user interface tier, and MySQL is used as the database management system on the server side. The processing management tier, which uses PHP as its scripting language, sits between these two tiers.