**Network Programming (Net Centric Programming) – IT096IU**

**Term Project Description**

**Objectives:**

To allow students to gain practical experience of the design, prototyping, testing, and evaluation stages of network application development.

To allow students to gain practical experience of using the TCP and UDP communications protocols at the programming level.

To strengthen the student’s understanding of networking and communication issues by relating theory and practice.

**Project Deliverables:**

Source code and documentation must be submitted on blackboard before due. Zip all your file and name it Groupnumber\_project.zip (ex: Group01\_project.zip)

A demonstration session will be held at the end of the course. You will be asked to run through your program. Questions will be asked to verify your project source code

Fail to show up during the demonstration session or no demonstration at all will result in ZERO grading for project

**Due date:**

8:00 Friday

Demo: starting 8:00 Friday

**Project Task: Manga Crawler and Manga Viewer**

This is project, we will build a simple system for manga reading. The system contains two separated modules: a Manga Crawler and a Manga Viewer.

Programming languages requirements: Python. You can use TCP, UDP for communication

**Manga Crawler:**

For this module, you can choose one or many of the following sites to get data: truyentranh.net, or truyentranhtuan.com. You may suggest any other manga site.

The crawl module needs to get info of ***at least*** ***100*** manga

For each manga, the following need to be stored:

* Manga name
* Author
* Description
* Categories
* Last update
* Chapter name and list of pages

The info must be stored in JSON file ***manga\_info.json***. A sample file is provided

**Manga Viewer**

Build a simple webserver to feed data for web browser to read manga base on the info constructed in the above module

The webserver read info from manga\_info.json and construct the html:

* /allmanga.html: list of all manga, name, author and author of each manga are shown
* /manga\_info.html?id=<manga\_id>: show detailed info of a manga with manga\_id include manga name, description, author, categories, chapter list….
* /chapter.html?id=<chapter\_id>: view all the page of a chapter with chapter\_id

**Documentation:**

- Architecture

- Instruction how to deploy and run your project

**Grading:**

- 20% of course grade

- manga\_info.json contains at least 100 manga with correct info: 10 pts

- document and demo: 10 pts

- Manga Crawler: 30 pts

- Core webserver: 20 pts

- Each support html page: 10 pts, total 30 pts

- Bonuses (varies, max 20pts): all html are link together, support switching sources