

Nanyang Technological University
Semester 1, 2020-2021
MSc Information Systems

CI6206 Internet Programming Mini Web App Development Project

Description

This is a team-based assignment and will constitute **30%** of the overall course grade. Each team will have 1-2 members to develop a web based system, using Eclipse/NetBeans and Web 2.0/3.0 Technologies. All members will receive the same grade.

Teams will have the freedom to decide their project scenarios and project specifications, but they must consult the instructor for approval to prevent duplicate projects. All project scenarios must be finalized on or before **Saturday, 5 Sept 2020**. Submit a project proposal (1-2 pages) to NTULearn. See Annex A for a sample.

Grading and Submission

This assignment will contribute 30% of the total marks for this course. Of this 30%, the distribution of the marks will be as follows:

- Overall System – (Integration, Usability, Innovation) – 60%
- Report – 20%
- Presentation – 20%

The overall system will be judged based on:

- Usefulness
- User Friendliness
- Completeness
- Creativity

The report (maximum 2-4 pages) must be submitted in **softcopy** containing

- Project Scenario
 - Project proposal
 - Features completed by team member(s)
- Database design (ER Diagram)
- A description of the roles of each team member
- Setup guide to run your application

Each presentation will be 10 – 20 minutes. Presentations will summarize the report and give a demonstration of the system.

All members of a team will receive the same grade unless there are reasonable grounds for not doing so. If team members have trouble working together, inform the instructor by **Saturday, 3rd Oct 2020** failing which, all members of the team will receive the same grade based on the outcome of the work produced.

The submission deadline is by **Saturday, 31 Oct 2020**. Each team will submit a compressed .zip file containing the following into the **Assignments** section on NTUlearn:

- War file (including source code)
- Supporting files required for the running of your application (e.g. configuration files, databases, code libraries, etc.)
- Report
- Presentation slides

Project presentation is scheduled on **Saturday, 31 Oct 2020. (Subject to change)**

Annex A
(SAMPLE)

Project Scenario – Student Overseas Programme System (SOPS)

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| Background |
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To enrich their educational journey with an international perspective, NTU students are given the opportunity to go on Overseas Programmes (OP) to have first-hand global experience.

The Student Overseas Programme System (SOPS) aims to computerise and automate the processes involved in the administration and planning of overseas programme so as to increase work efficiency.

The users of SOPS are System Administrator (SA), Programme Coordinator/s (PC/s) and Students.

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| Brief Description of Current Processes |
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Overseas Programme (OP) initiation

- At the briefing at the beginning of the year, the PC will inform students about the opportunity to go on the OP. Students are advised on various aspects of the programme, including application process, selection criteria and budget.
- Once the OP's details (destination, departure date, duration, estimated cost, etc) are confirmed, the PC will invite the students to apply for it via email.

OP Student Application

- Invited students will download the OP application form from the email link and fill in the required information.
- Students will submit the application form to the PC before the application closing date.

OP Management

- PC will liaise with a travel agency to finalise the OP itinerary and confirm the cost of the trip.
- PC will select the most suitable students for the OP.
- PC will conduct pre-trip briefings for successful students where their attendance will be taken.
- PC will pair students up for twin-sharing of hotel rooms and then submit the list to the travel agent for accommodation arrangement.

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| Functional Specifications – <i>NO submission required for this section</i> |
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OP Management

1. This module is used to administer and manage OPs.
2. Enable the adding, updating and searching of OP records.
 - a. A typical OP record consists of:
 - Name of OP;
 - Schedule (start and end date);
 - Objectives;
 - Estimated costs per student;
 - NTU staff trip leader/s – assume information (such as name, email and contact numbers) is already available in current database;
 - Maximum number of participants;
 - Place of lodging;
 - Closing date of application;
 - Travel agent information (such as name and contact person)
 - Instructions to applicants in point form;
3. Enable the mass sending of email and/or SMS to selected group of students to:
 - a. invite application for OP;
 - b. arrange for interview (to assess suitability for trip);
4. Enable the printing of attendance for pre-departure student briefings.
5. There shall be no deletion of OP records.

OP Student Application Management

1. This module is used by students to apply for OPs.
2. Enable invited students to apply for the OP of their choice.
3. Assume that the following information is available in the database:
 - a. Student information:
 - Name;
 - Matrix Number;
 - NRIC / Passport number;
 - Nationality;
 - Blood group;
 - Date of birth;
 - Sex;
 - Course (Degree);
 - Year of study;
 - Current Grade Point Average (GPA);
 - Address;
 - NTU email address;
 - Contact number/s (updatable);

4. OP application information:
 - a. Additional applicant personal information:
 - Choice of trip/s;
 - Passport expiry date;
 - Allergies;
 - Illness or handicap (Yes/no, if yes specify);
 - On medication (Yes/no, if yes specify);
 - Special diet (muslim/vegetarian, etc);
 - b. Parent/Guardian information:
 - Name;
 - Relationship to applicant;
 - Contact info – email, mobile, home and office numbers.
5. Enable students to print out consent forms for their parents to sign.
6. Enable the PC to search for student information by:
 - a. OP;
 - b. Name;
 - c. GPA;
 - d. Any other useful data.
7. Enable PC to pair students for twin sharing accommodation and export of pairing information to Excel spreadsheet.

Post Programme Feedback Management

1. This module enables the PC to conduct survey to solicit feedback for the OP.
2. Enable PC to conduct feedback.
 - a. Create and update online survey;
 - b. Allow students to do the survey;
3. Summarise results of survey with different statistical scenarios, for example:
 - a. Question/s with best or worst feedback.
 - b. Scoring system to rank popularity of different OPs.
 - c. Any other presentation of feedback information that can help to improve the organization of future OPs.

Optional features

1. Creative use and integration of social media (Facebook, twitter and etc.) to improve use of functionalities.
2. Enable the use of rich text editor for entry of multi-line inputs.
3. Enable the upload and sharing of video or pictures, either to market the programme to students or for post-programme activities.