CS4244 Knowledge-Based Systems – 2015/2016 Semester II
Group Project Assignment

This assignment requires students to develop a practical rule-based expert system, using CLIPS expert system shell. Students are to form groups of 3 to 4 members per group. The project will be showcased during the 8th STePS (SoC Term Project Showcase 2015-2016 Semester 2). The following deadlines are to be observed by all groups, failing which penalty will be imposed on the grading.

By 5 Feb 2016, 11.59 pm (Friday)

Formation of project groups comprising of 3 to 4 students per group: Sign up your group members' names on IVLE. Click "Project" on IVLE and sign up your group members accordingly. Once your group has been formed, group members should start discussing the project topic and the domain, in preparation for the submission of project title and proposal. You may enter your project title on IVLE for your group anytime once you have decided on the title.

By 26 Feb 2016, 11.59 pm (Friday)

Submission of project proposal to the document folder for your group in IVLE: The proposal should not be more than 5 pages, giving the following details (but not necessarily in the same order).

- Title of Project: this is the project title which your group has earlier submitted to IVLE.
- Abstract: Write an abstract of not more than 100 words. This abstract will be reproduced in the 8th STePS handbook..
- Name your leader for your group who will serve as the contact person for the STePS coordinator.
- Objective and Motivation of the Project: What this project aims to achieve and why your group chooses this domain.
- Description of the Domain: Describe the domain of expertise for which your group wishes to develop an expert system. The description should be understandable to readers outside the domain.
- Scope of the Project: It may not be possible to cover the entire field of the domain knowledge. If necessary, your group may wish to define the project scope.
- Source of Expertise: Human expert(s) or Book(s), etc.
- Proposed schedule: Give a rough schedule on how your group would complete the project in one month's time, showing milestones such as interviewing expert(s), coding, testing, report writing, etc.
- Distribution of work load: Describe how the work load will be divided among your group members.

By 15 April 2016, 11:59 pm (Friday)

Submission of Project Report: The report should not be more than 15 pages, giving the following details (but not necessarily in the same order).

- Title of Project and Group Members
- Refinement on the Project Scope (if any): There should not be a change of the domain from the original proposal, but refinement of the scope will be acceptable as there may be a need to fine tune the project due to unforeseen changes.
- Description of the Rule base: e.g. organization of the rules (number of rules, modules, control knowledge, strategies, any special features that your group would like to highlight).
- Description of GUI (if implemented): CLIPS is basically text based but it allows interface with external GUI. Due credit will be given for efforts in developing a user friendly GUI to facilitate interaction with the user. A good GUI enhances viewer's appreciation of your system during STePS showcase.
- A simple user guide.
- Any limitation of the project and possible future enhancement.
- Other information that your group deems useful.

In addition, your CLIPS program should be submitted together with any Executable file for running your program if you use external resources. Adequate comments should be given in the CLIPS code where necessary. Submit Your Project Report and CLIPS program code to the document folder for your group in IVLE by the due date.

On 20 April 2016 (Wednesday):

Project presentation: Each group will take part in the 8th SOC Project Showcase for 2015/2016 Semester II. The Project Showcase will be held in the evening of 20 April (Wednesday) from 6:00 pm to 10:00 pm. On the same day, in the morning or afternoon, each group will give a presentation to Prof. Tan. During the presentation, each group member should present and be able to answer questions. During the 8th SOC Project Showcase, there will be evaluation and ranking by industrial and other visitors. Due credit will also be given for teams that won prizes during the showcase.

Project Grading (Total: 25%):

Group Grading (15%): proposal, report and poster preparation, assessment of the system developed (including GUI, if any), viewers' feedback and any prize won at the Showcase.

Individual Grading (10%): presentation, Q&A during project presentation to Prof Tan as well as participation in 8th SOC Project Showcase, and also feedback from peer assessments.