COMP3334 COMPUTER SYSTEM SECURITY

GROUP PROJECT (25%)

AIM

The project aims to provide students with an opportunity to sharpen their critical and independent analytical skills and develop appropriate solution offering desirable security properties.

REQUIREMENTS

Students are expected to work in groups to develop a system with some security concerns. The format of this assessment task is outlined below.

Group Size: 3 to 4

Division of labor is supposed to be arranged by the group members themselves.

Group of 5 will be allowed with justification. Please seek approval from the subject lecture. In this case, the final report must include contribution breakdown of individual member.

Choice of topics: free choice

Some suggested topics will be given. Please note that you are not restricted to those topics.

Choice of environment: free choice

Please select a combination of environment and technology that you feel comfortable with. You can choose the programming language that best suit your group members' talent.

Schedule

1. Group Formation and Problem Definition (week 5)

At this stage, we expect a report on the following items:

(a) Name of the project
(b) List of group members
(c) Purpose of your system
(d) Security requirement of your system
(e) Technical Details

Please feel free to discuss with me or tutor before actually submit the report.

Due: 19 Feb 2015 (Week 5)

2. Demonstration and Presentation (week 13)

You are required to submit the source code and a report, in addition to the demo and presentation in week 13.

Due: 15 April 2015 (Week 13) Demonstration will also be scheduled in week 13.

ASSESSMENT

Marking Guide

Requirement Analysis (5%)	Analyze a scenario to identify security issues based on previously gained knowledge and/or literature review or comparison with existing systems Also include other functional/ non-functional system requirements.
Identification of Appropriate Tools / Mechanism (5%)	Demonstrate the ability to identify the appropriate tools and mechanism to address the security requirements. Show an understanding of the underlying assumptions.
System Design and Development (10%)	Demonstrate the ability to design and develop a prototype that satisfies the system requirements.
Presentation/ Demonstration (5%)	Illustrate clearly the goals of your system. Ability to answer questions.

Note that you should make full use of the report and the presentation to illustrating the significance of your system (in particular, how the above components are addressed). The marking shall take into account the level of difficulty of your project.

LIST OF POTENTIAL TOPICS

Electronic voting system.

Electronic auction system.

Privacy-friendly bulletin board.

Medical information system.

Secure cloud storage.

Secure distributed storage.

Anonymous messenger/ mailer.

Keychain (password management system)

Visual authentication system

Secure wireless file transfer system