**Security 211/228-3**

Over the last two decades security has become one of the most important issues in the Information Communication Technology landscape of most organisations. Organisations need security in order to ensure that their information processing systems are reliable. While Operating Systems provide some primitive security services, these are not enough to organisations expected to maintain a higher standard of data confidentiality, integrity and availability. Therefore, we have been witnessing a proliferation of security tools which provide additional security services to the information processing systems. Most of these security tools are used for checking and reporting the state of the systems and in some cases solving identified problems. Some security tools go a step further in the sense that they have sinister motives of deceiving users. We have reached a stage where it is extremely difficult to determine if the use of a particular security tool is legal or not. To make matters interesting legislators are busy making laws that react to public opinion and in some cases without a lot of thought on their implications to end users and developers. Therefore, even using some of the security tools for research is as uncertain as hackers seem to be with the law.

In this assignment you will be required to work in groups to research the following: (and write a report about your research results and give a presentation about your work as a group in the class)

1. Identify one security tool which is used in order to detect operating systems, sessions, hostnames, open ports etc for footprinting. 20%
2. The Kali <https://www.kali.org/> (or similar software package) and investigate the use security tools it provides. You will be required to demonstrate the working of two security tools of your choose in your report. 40%
3. Identify one security tool which are used to capture wireless network traffic 20%
4. Discuss programs are current existing in the market which are used to enforce password. 20%

Each Group will be required to submit the research report no later than 18:00 of the 25th

April, 2016.

*The report should not be more than 5000 words, screen shot must be included.*