COMPUTER SUBJECT:	BASIC NETWORK CONCEPTS
TYPE:	GROUP WORK EXERCISE/DISCUSSION
IDENTIFICATION:	SQLInjection Defence/MICL&MOFA
COPYRIGHT:	*Michael Claudius & Homayoon Fayez*
LEVEL:	EASY
DURATION:	1 hour
SIZE:	50 lines!!
OBJECTIVE:	Counterattacks of SQLInjection
REQUIREMENTS:	**Assignment SQL-Injection**
COMMANDS:	

IDENTIFICATION: SQL-Injection Defence/MC

Prolog
You have successfully hacked the IT-Security company, SmartICT

https://smartict.dk/sites/zealand/sqlinjection/login.php

and extracted various data. Now it is time to solve the problem.

The Mission
You are to discuss different techniques to avoid SQL-Injection

Purpose
The purpose is to suggest different ways of avoiding injection and a new SQL-code

Useful links

http://www.w3schools.com/sql/sql_injection.asp;
General description

http://www.unixwiz.net/techtips/sql-injection.html;
Some ideas here.

https://www.owasp.org/index.php/ESAPI

http://www.mysqltutorial.org/stored-procedures-parameters.aspx

http://docs.oracle.com/javase/tutorial/jdbc/basics/storedprocedures.html

Assignment 1: Clean input

a. Should we just rule out bad characters?
b. Or make a set of acceptable characters?
c. Is sanitizing the input enough?
d. Show how to use regular expression or 2) ESAPI (from OWASP) see https://www.owasp.org/index.php/ESAPI

Assignment 2: SQL-sentence: Prepared statements
a. How does this protect against SQL-injections?
b. Write a SQL-login sentence and show it to SmartICT.

----------Now problem is solved and you can move to other assignments or proceed ----------

Assignment 3: SQL-sentence: Stored proedures (Optional)
a. How does this protect against SQL-injections?
b. Write a stored procedure and a SQL-login sentence and show it to SmartICT.

Assignment 4: The Net (Optional)
Can you find some SQL-injection tools for hacking the site?