

Website Testing

The website is the gateway to the data. However, it can also be a gateway for a hacker wreak havoc. These tests will confirm that anyone with dark intentions will not be able to compromise the server from the website.

Table 10 - Website Test Descriptors

Test #	Test Name	Description	Reason	Pass Condition	Outcome
W.1	Sanitation Test	Data from the website is sent to the server via http get and post requests. Some commands sent that could break the server include “; && rm -rf /” and “drop table *;”. These commands should break the server.	If the data are not “sanitized” correctly, it is possible for a user to drop a table from the sql database, or execute shell commands.	Posting and getting from the server using common commands that break a server should not break the server.	Pass. Security Majors tried this and Django prevents it from happening.
W.2	Password protection test	Connect wireshark, and see if user names / passwords are able to be seen leaving the client and going to the server.	If the website is meant to have a limited set of users, then a user name and a password are needed. The passwords need to be protected.	The password leaving the client should be hashed and salted so a hacker cannot steal them.	Failed originally. We were not using https, which means the passwords were being sent over in plain text. Since then, https has been implemented.

W.3	User login test	Ensure valid users can log in and invalid users cannot log in	The data need to be available to a limited set of users. Therefore, a user name and a password is needed to gain access to the website.	Valid users can log in, invalid users are rejected.	Pass. Need a valid username to login
W.4	White-hat hacker test	Borrow one of the many security majors the group knows, tell them the website, and see if they can break in.	Having a friendly hacker attempt to break into the website will emulate a more sinister hacker trying to get in. If any information is compromised by the friendly hacker, they will not steal it.	If the friendly-hacker cannot break in, the test passes.	The outcome of this was the security majors provided us with a document with suggestions on how to make the site more secure. Their suggestions were followed.