Testing Document  
*UWA Biosecurity Game*  
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**Objectives and Test Summary**

This document is primarily focusing on testing all aspects of the system, web site and the program underlying the website biosecurity.are.uwa.edu.au. Here it will describe the behaviour of the system and the underlying logic that decides when incursions occur. Testing will primarily focus on these aspects:  
  
1) How incursions are determined and the amount of times incursions occur.  
2) The general usability and functionality of all the pages and how they work together  
3) The websites compatibility across systems, web browsers especially due to its use of HTML5 specific code used within the webpages, and its use of Django, a Python framework.  
4) The performance of the server, its backup strategies and recovery plans (if any can be done). Focusing on how many users the server can handle and creating a session and running a session with many participants, 100 being the acceptable amount.  
5) The export of the data from each game for experimental purposes and its readability.  
6) The full use of all these aspects all working together in one cohesive, usable system even by users who aren’t fully familiar with python programming

**Testing Strategy**

The Testing Strategy will be divided into two areas depending on what needs to be tested. One being Automated Testing which will be primarily used for Software Testing, however Automated Testing will be used when testing the server’s capabilities as browser bots can be used to mimic user behaviour on the website.  
  
The overall strategy is a bottom-up approach test the bare code itself, using the command line as a way to test this (Refer to [Automated Testing](#_Automated_Testing) for more detail)

### Automated Testing

Automated Testing will be used in just about all areas of testing

### Hardware and Manual Testing

**Test A**

<<Introduction and overview for test A>>

**Test Specification**

<<The Test Specification lists the requirements whose satisfaction will be demonstrated by the test. It lists the methods tested, and describes the conditions of the test.>>

**Test Description**

<<The Test Description is used as a guide in performing the test. It lists the input data and input commands for each test, as well as expected out put and system messages. If you find that you are unable to describe expected output numerically, use a natural language description. A test description consists of

* Location of test (hyperlink to test)
* Means of Control: Describes how data are entered (manually or automatically with a test driver)
* Data
  + Input Data
  + Input Commands
  + Output Data
  + System Messages
* Procedures: The test procedure is often specificed in form of a test script.

**Test Analysis Report**

<<The Test Analysis Report lists the functions and performance characteristics that were to be demonstrated, and describes the actual test results. The description of the results must include the following:

* Function
* Performance
* Data measures, including whether target requirements have been met

If an error or deficiency has been discovered, the report discusses its impact.>>

**Test B**

<<Introduction and overview for test B>>

**Test Specification**

<<The Test Specification lists the requirements whose satisfaction will be demonstrated by the test. It lists the methods tested, and describes the conditions of the test.>>

**Test Description**

<<The Test Description is used as a guide in performing the test. It lists the input data and input commands for each test, as well as expected out put and system messages. If you find that you are unable to describe expected output numerically, use a natural language description. A test description consists of

* Location of test (hyperlink to test)
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* Data
  + Input Data
  + Input Commands
  + Output Data
  + System Messages
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**Test Analysis Report**

<<The Test Analysis Report lists the functions and performance characteristics that were to be demonstrated, and describes the actual test results. The description of the results must include the following:

* Function
* Performance
* Data measures, including whether target requirements have been met

If an error or deficiency has been discovered, the report discusses its impact.>>

**Test C**

<<Introduction and overview for test C>>

**Test Specification**

<<The Test Specification lists the requirements whose satisfaction will be demonstrated by the test. It lists the methods tested, and describes the conditions of the test. >>

**Test Description**

<<The Test Description is used as a guide in performing the test. It lists the input data and input commands for each test, as well as expected out put and system messages. If you find that you are unable to describe expected output numerically, use a natural language description. A test description consists of

* Location of test (hyperlink to test)
* Means of Control: Describes how data are entered (manually or automatically with a test driver)
* Data
  + Input Data
  + Input Commands
  + Output Data
  + System Messages
* Procedures: The test procedure is often specificed in form of a test script.

**Test Analysis Report**

<<The Test Analysis Report lists the functions and performance characteristics that were to be demonstrated, and describes the actual test results. The description of the results must include the following:

* Function
* Performance
* Data measures, including whether target requirements have been met

If an error or deficiency has been discovered, the report discusses its impact.>>

**Test D**

<<Introduction and overview for test D>>

**Test Specification**

<<The Test Specification lists the requirements whose satisfaction will be demonstrated by the test. It lists the methods tested, and describes the conditions of the test.>>

**Test Description**

<<The Test Description is used as a guide in performing the test. It lists the input data and input commands for each test, as well as expected out put and system messages. If you find that you are unable to describe expected output numerically, use a natural language description. A test description consists of

* Location of test (hyperlink to test)
* Means of Control: Describes how data are entered (manually or automatically with a test driver)
* Data
  + Input Data
  + Input Commands
  + Output Data
  + System Messages
* Procedures: The test procedure is often specificed in form of a test script.

**Test Analysis Report**

<<The Test Analysis Report lists the functions and performance characteristics that were to be demonstrated, and describes the actual test results. The description of the results must include the following:

* Function
* Performance
* Data measures, including whether target requirements have been met

If an error or deficiency has been discovered, the report discusses its impact.>>

**Test Materials**

<<Describes materials required for executing the tests described in thi