

# COSC 4345 Software Engineering II – Backlog

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## Section I - Complete Features

(Must include priority, description, developer name, date complete)

## Section II - Work In Progress

(Must include priority, description, developer name)

- P0 php command/control, java controller, database - implement the capability to request a test script to run from the php command/control, execute the Python test and return a result (SUCCESS/FAIL) to the PHP command/control. This is minimal functionality for one test. – **Developer: Aziz Alibrahim, Chris Inzana**  
getTest(SUTId) API  
putResult(SUTId, Result) API
- P0 Java controller - set the time interval between calls to getTest() as well as the number of tests to run – **Developer: Chris Inzana**
- P0 Web UI to display test result history (Use datatables JQuery plugin) – **Developer: Anthony Ofili**
- P0 SUT Test - Memory Test - An example of a test to exercise memory is a Python program that creates a list with one million items. Use exception handling to determine if there is an error and print "ERROR:" with the error text. On success print "SUCCESS". – **Developer: Paloma Samaniego**
- P0 Java Controller, PHP Controller - When a test encounters an error it should return "ERROR" with the error text. In this case the Java Controller should send the error text to the server, which should be stored in the database. – **Developer: Aziz Alibrahim, Chris Inzana**
- P0 Database, Java Controller, PHP Command/Control - Set the maximum number of times a test should run on a given day. This setting should be in the database and the PHP Command/Control should take this into account when designating which tests run (i.e., part of the algorithm when getTest() is called.) – **Developer: Chris Inzana**

## Section III Backlog

(Must include priority and a brief feature description)

- P0 SUT Test - Storage - An example of a test that exercises the storage system is a Python program that creates a one megabyte file with random characters. Use exception handling to determine if there is an error and print "ERROR:" and the error text. On success print "SUCCESS".

- P0 SUT Test - Video - An example of a Python program that tests the video subsystem is a program that uses the pyscreenshot module to create a PNG file screenshot. The program should verify the file is created and has a > 0 file size. On success print "SUCCESS", otherwise print "ERROR" and the error text.
- P0 SUT Test - Networking - An example of a test that exercises networking is a Python program that connects to a website, downloads an HTML file and verifies the contents. On success print "SUCCESS", otherwise print "ERROR" and the error text.
- P0 SUT Test - Video - An example of a Python program that tests the video subsystem is a program that uses the pyscreenshot module to create a PNG file screenshot. The program should verify the file is created and has a > 0 file size. On success print "SUCCESS", otherwise print "ERROR" and the error text.
- P0 SUT Test - Integer Math Test - Measures how fast the CPU can perform integer operations. An integer is a whole number with no fractional part. On success print "SUCCESS", otherwise print "ERROR" and the error text.
- P0 Java Controller, PHP Controller - When a test encounters an error it should return "ERROR" with the error text. In this case the Java Controller should send the error text to the server, which should be stored in the database.
- P1 Web UI to add, update and delete tests from the database
- P1 Web UI to add, update and delete SUTs from the database
- P1 SUT Test - Prime Number Test - Measures how fast the CPU can search for prime numbers. example, 1, 2, 3, 5, 7, 11, etc. This algorithm should use a loop. On success print "SUCCESS", otherwise print "ERROR" and the error text.
- P1 SUT Test - Floating Point Test - Performs the same operations as the integer math tests, however with floating point numbers. A floating point number is a number with fractional parts (e.g., 10.12345). On success print "SUCCESS", otherwise print "ERROR" and the error text.
- P1 Java Controller, PHP Command/Control - Add the capability to log errors to a log file. Errors may come from a SUT test or from a call to the PHP Command and Control API.
- P1 PHP Command and Control - States in the test history table should be: IN\_PROGRESS with start timestamp SUCCESS or FAIL with finish timestamp
- P2 PHP Command and Control - Email one or more users when a test fails so the user can take immediate action.