# Activation Server / Client Test Plan

## Test 1: server data file

* Start the server
* RESULTS:
  + An empty file called data.txt file should be created

## Test 2: client needs activation

* Start the client
* Enter machine ID: abcd
* RESULTS:
  + Client should state that it needs to be activated

## Test 3: activate client

* Enter serial number: 1234
* RESULTS:
  + Client should state that it was successfully activated
  + A file called actFile.txt should be created and contains the content: abcd
  + The server should show on the screen the serial number and machine ID and that both are OK
  + The server data file should be updated to contain the serial number and machine ID

## Test 4: client does not need to be activated

* Start the client
* Enter machine ID: abcd
* RESULTS:
  + Client should state that it has already been activated
  + There should be no interaction between client and server

## Test 5: client can be reactivated

* Delete the activation file
* Start the client
* Enter machine ID: abcd
* RESULTS:
  + Client should state that it needs to be activated
* Enter serial number: 1234
* RESULTS:
  + Client should state that it was successfully activated
  + A file called actFile.txt should be created and contains the content: abcd
  + The server should show on the screen the serial number and machine ID and that both are OK
  + The server data file should not have changed. It should still only contain one activation

## Test 6: activate another client

* Delete the activation file
* Start the client
* Enter machine ID: qwer
* RESULTS:
  + Client should state that it needs to be activated
* Enter serial number: 4567
* RESULTS:
  + Client should state that it was successfully activated
  + A file called actFile.txt should be created and contains the content: qwer
  + The server should show on the screen the serial number and machine ID and that both are OK
  + The server data file should be updated to contain the serial number and machine ID. There should now be two activations recorded in the data file; one for serial number 1234 and another for 4567.

## Test 7: prevent activation of a previously activated serial (1)

* Start the client
* Enter machine ID: zxcv
* RESULTS:
  + Client should state that the activation data has been altered, and that the program needs to be activated
* Enter serial number: 1234
* RESULTS:
  + Client should state that the activation was not successful
  + The server should show on the screen the serial number is OK but the machine ID failed
  + There should be no change in the server data file

## Test 8: prevent activation of a previously activated serial (2)

* Delete the activation file
* Start the client
* Enter machine ID: zxcv
* RESULTS:
  + Client should state that it needs to be activated
* Enter serial number: 4567
* RESULTS:
  + Client should state that the activation was not successful
  + No activation file should have been created
  + The server should show on the screen the serial number is OK but the machine ID failed
  + There should be no change in the server data file

## Test 9: prevent bad serial number

* Start the client
* Enter machine ID: zxcv
* RESULTS:
  + Client should state that it needs to be activated
* Enter serial number: abcd
* RESULTS:
  + Client should state that the activation was not successful
  + No activation file should have been created
  + The server should show on the screen the serial number is INVALID   
    but the machine ID should have never been communicated to the server and therefore the server should not show any further information on the screen
  + There should be no change in the server data file

## Test 10: server retains data

* Close the server program
* Start the server again
* RESULTS:
  + The server data file should still be there, and should still contain the two activations which were previously recorded in the data file; one for serial number 1234 and another for 4567.