

# TEST PLAN

**Author: Declan Holmes, Sean Ackerley, Jonathan Hein**

## Scope

This test plan identifies and describes the tests for the developed solution for the 'ATAR Calculator project'.

The following modules will be tested:

- MySQL database
- ATAR calculation
- Web page interface
- Course retrieval program

The most critical performance measures are as listed:

- Response time for ATAR to be calculated and course listing to be returned.
- Response time for Course retrieval program to complete.

## Requirements for test

The following lists what will be tested:

- Database integrity tests
  - o Verify accessibility to MySQL.
  - o Verify data in database correctly reflects the courses listed on the VTAC website.
  - o Verify data is retrieved correctly from the database.
- User interface tests
  - o Verify website interface is stream line and intuitive to use.
- Performance tests
  - o Verify ATAR calculation response time falls within expected limits.
  - o Verify Course retrieval program response time falls within expected limits.
- Function tests
  - o ATAR scaled score is correctly calculated.
  - o ATAR aggregated score is calculated with the following business rules:
    - At least one subject must be an English subject.
    - At most, two English subjects can be used in the calculation of ATAR score.
    - At most, two math subjects can be used in the calculation of ATAR score.

- The top five entered subjects and English subject will make up the ATAR score.

## Test Strategy

### Test Objective:

Verify accessibility to MySQL database server.

### Technique:

Attempt to access the database through both the myadminphp interface and directly through a terminal session.

### Completion Criteria:

The database is accessible by both the above mentioned methods.

### Test Objective:

Verify data entries in the courses table of the database correctly reflect the courses listed on the VTAC website.

### Technique:

Perform a side by side comparison of the data populating the courses table against the courses listed on the VTAC website.

### Completion Criteria:

The data residing in the courses table correctly reflects the courses listed on the VTAC website.

### Test Objective:

Verify the integrity of the information retrieved from the database to be presented on the ATAR calculator project web page interface.

### Technique:

Test each section of the web page interface that presents information residing in the database with varying arguments (if the query for that section requires them).

### Completion Criteria:

Information is correctly represented on the web page interface by comparison to its relative entry in the database.

**Test Objective:**

Ensure web page user interface is intuitive to use.

**Technique:**

Compare web page presentation to industry standards.

Test with user unfamiliar to the project.

**Completion Criteria:**

Web page interface conforms to industry standards.

Test users transaction time falls within expectations.

**Test Objective:**

Verify ATAR calculation response time falls within expectations.

**Technique:**

Complete web page interface form and time response.

**Completion Criteria:**

ATAR calculation response time is below the maximum limit specified.

**Test Objective:**

Verify course retrieval program response time falls within expectations.

**Technique:**

Time the programs run-time from beginning to end.

**Completion Criteria:**

Course retrieval program response time is below the maximum limit specified.