

Test Plan

Advisely, An Education Support Application

Big Muscle Boys

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Unit Testing:

Component: FirebaseAuth : Authenticate

Setup: Let test@test.com and "testPass" be an email/password pair that do not correspond to an Advisely account.

Call: token : Authenticate("test@test.com", "testPass")

Assertion: assertNull(token)

Teardown: N/A

Component: FirebaseAuth : Authenticate

Setup: Let test@test.com and "testPass" be an email/password pair that correspond to an Advisely account.

Call: token : Authenticate("test@test.com", "testPass")

Assertion: assertNotNull(token)

Teardown: Remove the above account from the database.

Component: FirebaseAuth : CreateAccount

Setup: Let test@test.com and "testPass" be an email/password pair that correspond to an Advisely account.

Call: token : CreateAccount("test@test.com", "testPass")

Assertion: assertNull(token)

Teardown: Remove the above account from the database.

Component: FirebaseAuth : CreateAccount

Setup: Let test@test.com and "testPass" be an email/password pair that do not correspond to an Advisely account.

Call: token : CreateAccount("test@test.com", "testPass")

Assertion: assertNotNull(token)

Teardown: Remove the above account from the database.

FOR ALL REMAINING UNIT TEST CASES, THE USER MUST BE LOGGED IN.

Component: Controller : BuildSchedule

Setup: Let the database contain all courses designated in the course list passed to the method.

As well, let there be no conflicts among the courses.

Call: schedule : BuildSchedule(courses)

Assertion: assertNotNull(schedule)

Teardown: Remove the constructed schedule from the database.

Component: Controller : BuildSchedule

Setup: Let the course list passed in be empty.

As well, let there be no conflicts among the courses.

Call: schedule : BuildSchedule(courses)

Assertion: assertNotNull(schedule)

Teardown: Remove the constructed schedule from the database.

Component: Controller : BuildSchedule

Setup: Let the course list contain conflicting courses.

Call: schedule : BuildSchedule(courses)

Assertion: assertNotNull(schedule)

Teardown: Remove the constructed schedule from the database.

Component: Controller : UpdatePref

Setup: The list of preferences is empty

Call: newPrefs : UpdatePref(preferences)

Assertion: assertTrue(newPrefs)

Teardown: Revert preferences to initial state.

Component: Controller : NewClass

Setup: The user enters a list of courses they have previously taken.

Call: newClass : NewClass(courses)

Assertion: assertNull(newClass)

Teardown: Remove the courses from the account history

Component: Controller : GeneratePDF

Setup: The user has an empty schedule.

Call: pdf : GeneratePDF(schedule)

Assertion: assertNotNull(pdf)

Teardown: N/A

Component: Controller : GeneratePDF

Setup: The user has an arbitrary non-empty schedule.

Call: pdf : GeneratePDF(schedule)

Assertion: assertNotNull(pdf)

Teardown: N/A

Component: Controller : GenerateTXT

Setup: The user has an empty schedule.

Call: txt : GenerateTXT(schedule)

Assertion: assertNotNull(txt)

Teardown: N/A

Component: Controller : GenerateTXT

Setup: The user has an arbitrary non-empty schedule.

Call: txt : GenerateTXT(schedule)

Assertion: assertNotNull(txt)

Teardown: N/A

Component: Controller : RecommendMajors

Setup: The user has taken zero courses.

Call: majors : RecommendMajors(courses, currMajors)

Assertion: assertNull(majors)

Teardown: N/A

Component: Controller : RecommendMajors

Setup: The user has taken some arbitrary number of courses that fit several graduation requirements.

Call: majors : RecommendMajors(courses, currMajors)

Assertion: assertNotNull(majors)

Teardown: N/A

Component: Controller : RecommendCourses

Setup: The user has taken zero courses

Call: courses : RecommendCourses(courses, currMajors)

Assertion: assertNotNull(courses)

Teardown: N/A

Component: Controller : RecommendCourses

Setup: The user has taken some arbitrary number of courses.

Call: courses : RecommendCourses(courses, currMajors)

Assertion: assertNotNull(courses)

Teardown: N/A

Component: Controller : ImportSchedule

Setup: N/A

Call: schedule : ImportSchedule(scheduleTXT)

Assertion: assertNotNull(schedule)

Teardown: Remove the newly entered schedule from the users page.

Component: Schedule : IsValid

Setup: The schedule contains zero courses.

Call: b : schedule.IsValid()

Assertion: assertTrue(b)

Teardown: N/A

Component: Schedule : IsValid

Setup: The schedule contains some number of non-conflicting courses.

Call: b : schedule.IsValid()

Assertion: assertTrue(b)

Teardown: N/A

Component: Schedule : IsValid

Setup: The schedule contains at least 2 courses which conflict.

Call: b : IsValid()

Assertion: assertFalse(b)

Teardown: N/A

Component: DatabaseManager : SaveSchedule

Setup: N/A

Call: b : SaveSchedule(schedule)

Assertion: assertTrue(b)

Teardown: Remove the schedule from the database.

Component: DatabaseManager : SavePreferences

Setup: N/A

Call: b : SavePreferences(preferences)

Assertion: assertTrue(b)

Teardown: Remove the new preferences from the database.

Component: DatabaseManager : SaveCourse

Setup: N/A

Call: b : SaveCourse(course)

Assertion: assertTrue(b)

Teardown: Remove the course from the database.

Component: DatabaseManager : GetClasses

Setup: N/A

Call: courses : GetClasses(criteria)

Assertion: assertNotNull(courses)

Teardown: N/A

Component: DatabaseManager : GetSchedule

Setup: N/A

Call: schedule : GetSchedule()

Assertion: assertNotNull(schedule)

Teardown: N/A

Component: DatabaseManager : GetClassesTaken

Setup: N/A

Call: courses : GetClassesTaken()

Assertion: assertNotNull(courses)

Teardown: N/A

Component: DatabaseManager : GetMajors

Setup: N/A

Call: majors : GetMajors()

Assertion: assertNotNull(majors)

Teardown: N/A

Use Case Testing: To be done in deliverable 4

Acceptance Testing: To be done in deliverable 4