

INTRODUCTION

The Test Plan is designed to prescribe the scope, approach, resources, and schedule of all testing activities of the project AU Spark application. The plan identify the items to be tested, the features to be tested, the types of testing to be performed, the personnel responsible for testing, the resources and schedule required to complete testing, and the risks associated with the plan.

1 TEST STRATEGY

1.1 Scope of Testing

1.1.1 Feature to be tested

Module Name	Application Role	Description
Log-in	Student	Student can login with studentcode and their password. After login, student profile will show. If password or student code is wrong, message error will alert.
Connect with Facebook	Student	Students can connect or disconnect with their facbook.
Advisor Information	Student	<ul style="list-style-type: none">- Advisor : Show information of advisor- Advising information : Show course and status that students

		advise with their advisor.
Grade List	Student	<ul style="list-style-type: none"> - By semester : Show course and grade of student in each semester and year. - By curriculum : Show curriculum of students' faculty. If students studied, grade will show and have green point. If students are studying, it will show yellow point. If students don't study, it will show gray point.
Grade Summary	Student	Grade in each semester will show in graph, and below graph it show group of course group by grade.
Transcript	Student	Student can click button transcript for order to print transcript online.
Schedule	Student	<ul style="list-style-type: none"> - Class : Schedule in this semester will show table with color on day and time that have class and have detail in each class below table. - Examination : Students can click to see examination date and time in each course.
Examination	Student	It show after student click on schedule class menu. Show examination information in this semester.

Previous semester	Student	It show after student click on schedule class menu. Show list of previous schedule class, can see course detail.
Pre-regist Result	Student	In menu, pre-regist time in each student will show above Pre-regist result menu. After click it, if student don't pre-regist, it show nothing. If student already pre-regist, it will show schedule of pre-result that success.
Plan List	Student	<p>Student can see date and time to pre-registration and can click icon plus to add plan. If it is not time to plan, message error will show. After that,</p> <ul style="list-style-type: none"> - Student can click add course. Search course page will show and students can find course, see section, and click to select section add in plan. If courses do not open in next semester error message will show. They can add and delete course that they select. - Show schedule : when students finish to add course, they click show schedule, it will show schedule of course that they add. If it has something conflict,

		<p>error message will show. And click heart icon to save favourite plan.</p> <ul style="list-style-type: none"> - Setting : They can set constraints of course in schedule.
Class search	student	Student can search class by Course code or Course name, and can click to see section in each course. They can select semester and year that they want.
Calendar	Student	Show Calendar and students can see important date, for example holiday or open semester date.
Reset password	Student	Student will input information to reset their password and click submit. If it has some text field blank or wrong, message error will show.
Rate us	Student	Connect with Play store for rate application.
Log out	Student	Log out AU Spark, comebage log-in page.

1.1.2 Feature not to be tested

These feature are not be tested because they are not included in the software requirement specs

- Hardware Interfaces
- Software Interfaces

- Database logical
- Communications Interfaces

1.2 Test Type

- Integrate test : Test modules work with server response is correctness
- Install and uninstall : Check the resource set up in mobile when install and delete all the resources that I have installed

1.3 Risk and Issues

Risk	Mitigation
Team member not enough	We have only two members and one month for test , so we should prepare test case and manage time to test.

1.4 Test Logistics

1.4.1 Who will test?

- Team test

4.2 When will test occur?

- When reach the requirements → product finish
- Finish environment setting
- Test Specification is created

2 TEST OBJECTIVE

The test objectives are to verify the Functionality of AU Spark application on Android, the project should focus on testing students' information that show on AU Spark in each menu such as profile, grade list, class schedule, or etc. Important, we must test to guarantee that students can complete step of pre-registration and pre-result will show and not change after they finish pre-registration.

3 TEST CRITERIA

3.1 Suspension Criteria

When test team can not continue testing in application or found bug or detect critical error.

3.2 Exit Criteria

Specifies the criteria that denote a successful completion of a test phase - Run rate is mandatory to be 100% unless a clear reason is given. - Pass rate is 80%, achieving the pass rate is mandatory and not found huge error

4 RESOURCE PLANNING

4.1 System Resource

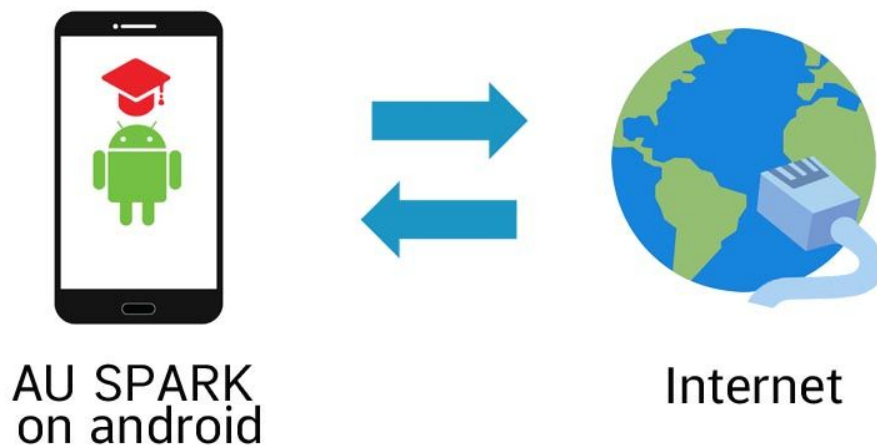
No.	Resources	Description
1.	Automated UI Testing Tool	Test tool that can auto generate the test result to pre-define form and automated test execution on android emulator and mobile.

2.	AU SPARK APK	APK for install AU Spark application in android.
3.	Android mobile	Device to test android version.
4.	Android Emulator	Emulator to test and display information.
5.	Computer	For emulator
6.	Network	Set up a LAN Gigabit and 1 internet line with speech at least 5 Mb/s.
7.	Server	A database server to see real information.

4.2 Human Resource

No.	Member	Tasks
1.	Test team	Test all function in applicaion

5 TEST ENVIRONMENT



6 SCHEDULE & ESTIMATION

6.1 All project task and estimation

Task	Members	Estimate effort
Create the test specification	Tester	6 man-hour
Perform test execution	Tester	35 man-hour
Test Report	Tester	5 man-hour
Test Delivery		5 man-hour
Total		51 man-hour

7 TEST DELIVERABLES

7.1 Before testing phase

- Test plans document.
- Test cases documents
- Test Design specifications.

7.2 During the testing

- Progress report
- Test Data

7.3 After the testing cycles is over

- Test Results/reports
- Defect Report

Features to be Tested

- Student profile

Features	Description	Level
Log-in	Student can login with student code and their password. After login, student profile will show. If password or student code is wrong, message error will alert.	1
Connect with Facebook	Students can connect or disconnect with their facebook.	2

- Advisor

Features	Description	Level
Advisor Information	<ul style="list-style-type: none"> - Advisor : Show information of advisor - Advising information : Show course and status that students advise with their advisor. 	3

- Academic

Features	Description	Level
Grade List	<ul style="list-style-type: none"> - By semester : Show course and grade of student in each semester and year. - By curriculum : Show curriculum of students' faculty. If students studied, grade will show and have green point. If students are studying, it will show yellow point. If students don't study, it will show gray point. 	4
Grade Summary	Grade in each semester will show in graph, and below graph it show group of course group by grade.	5

- Student Schedule

Features	Description	Level
Class Schedule	<ul style="list-style-type: none"> - Class : Schedule in this semester will show table with color on day and time that have class and have detail in each class below table. - Examination : Students can click to see examination date and time in each course. 	6
Examination	Show examination information in this semester.	7
Previous semester	Show list of previous schedule class, can see course detail.	8

- Pre-registration

Features	Description	Level
Pre-registration Result	Pre-regist time in each student will show above Pre-regist result menu. After click it, if student don't pre-registration, it show nothing. If student already pre-regist, it will show schedule of pre-result that success.	11
Plan List	<p>Student can see date and time to pre-registration and can click icon plus to add plan. If it is not time to plan, message error will show. After that,</p> <ul style="list-style-type: none"> - Student can click add course. Search course page will show and students can find course, see 	9

	<p>section, and click to select section add in plan. If courses do not open in next semester error message will show. They can add and delete course that they select.</p> <ul style="list-style-type: none"> - Show schedule : when students finish to add course, they click show schedule, it will show schedule of course that they add. If it has something conflict, error message will show. And click heart icon to save favourite plan. - Setting : They can set constraints of course in schedule. 	
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- Class Search

Features	Description	Level
Class search	Student can search class by Course code or Course name, and can click to see section in each course. They can select semester and year that they want.	10

- App Setting

Features	Description	Level
Reset password	Student will input information to reset their password and click submit. If it has some text field blank or wrong, message error will show.	14

Rate us	Connect with Play store for rate application.	13
Log out	Log out AU Spark, comeback log-in page.	15

- Other

Features	Description	Level
Calendar	Show Calendar and students can see important date, for example holiday or open semester date.	12

Approach Refinements

Our testing do not access the database and not know source code in Au spark app. we have to test functional and I use automated testing Appium and Selenium server on android

Test Identification

- Student profile

Features	Short Description	Level	Test Procedure	Information Required
Log-in	Student login and show profile	1	1. Input student id and password 2. click "Log-in" button	Id must available and password must correct

Connect with Facebook	Students can connect or disconnect with their facebook.	2	<ol style="list-style-type: none"> 1. click "connect with facebook" button to connect and allow step of facebook 2. click "connect" button again to disconnect 	After student Log-in
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- Advisor

Features	Short Description	Level	Test Procedure	Information Required
Advisor	Advisor Information	3	<ol style="list-style-type: none"> 1. open menu side bar 2. click on name of advisor 	If students have advisor, advisor profile will show.

Advising information	Show advising information	3	<ol style="list-style-type: none"> 1. open menu side bar 2. click advising information on menu side bar 	Course and section will show when their advice with advisor.
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- Academic

Features	Short Description	Level	Test Procedure	Information Required
Grade List	By semester : show course and grade By curriculum : Show curriculum of students' faculty.	4	<ol style="list-style-type: none"> 1. open menu side bar 2. click "Grade List" 3. see grade by semester first 4. click "by curriculum" on top to see grade by curriculum 	Grade will show "By semester" first, and student must already study at least one semester.
Grade Summary	Graph of grade	5	<ol style="list-style-type: none"> 1. open menu side bar 2. click "Grade summary" 3. click back button to back to menu side bar 	

- Student Schedule

Features	Short Description	Level	Test Procedure	Information Required
Class Schedule	Show class schedule in this semester and see examination of midterm and final date	6	<ol style="list-style-type: none"> 1. open menu side bar 2. click class schedule 3. click "examination" button 4. show examination page, show midterm 5. click "Final" on top to see final date 6. click back button 	student must have class in this semester
Examination	examination date in this semester.	7	<ol style="list-style-type: none"> 1. open menu side bar 2. click Examination 3. show midterm first 4. click "Final" on 	this menu will show after click "class schedule" on menu side bar

			<p>top to see final date</p> <p>5. click back button</p>	
Previous semester	list of previous schedule class	8	<p>1. open menu side bar</p> <p>2. click Previous Semester</p> <p>3. click “examination” button in each schedule</p> <p>4. click back button</p>	this menu will show after click “class schedule” on menu side bar

- Pre-registration

Features	Description	Level	Test Procedure	Information Required
Pre-registration Result	show pre-registration result schedule	11	<p>1. open menu side bar</p> <p>2. click Preregistration Result</p>	schedule will show after student finish pre-registration.
Plan	plan	9	1. open menu	- students

List	schedule to pre-registration		<p>side bar</p> <ol style="list-style-type: none"> 2. click Pain list 3. click on plus icon on left top of page 4. click add course 5. input course name or course title in search text field 6. select course 7. select section 8. click add course 9. page it come back to new plan page 10. when finish add course, click show schedule 11. click top right button to set constrain 12. click button on page to set constrain and click "ok" 	<p>can add plan in this time only</p> <ul style="list-style-type: none"> - students can choose more than one section - when click schedule, it will show when courses do not wrong in constrain
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- Class Search

Features	Short Description	Level	Test Procedure	Information Required
Class search	Search course in semester that select	10	<ol style="list-style-type: none"> 1. open menu side bar 2. click Class search 3. select year and semester 4. input course name or course title in search textfield 5. select course 6. select section to see information 7. click back button 	course will show when admin open this course in semester.

- App Setting

Features	Description	Level	Test Procedure	Information Required
Reset passwo	Reset student	14	<ol style="list-style-type: none"> 1. open menu side bar 	students must input all of

rd	password		<ol style="list-style-type: none"> 2. click Reset Password 3. input information in textfield 4. click submit button 	information in textfeild and correct old password
Rate us	rate application in App store	13	<ol style="list-style-type: none"> 1. open menu side bar 2. click Rate us 	
Log out	Log out AU Spark, comeback log-in page.	15	<ol style="list-style-type: none"> 1. open menu side bar 2. click Log out 	

- Other

Featur es	Description	Lev el	Test Procedure	Information Required
Calend ar	Calendar in this year	12	<ol style="list-style-type: none"> 1. open menu side bar 2. click AU Calendar 3. click more icon in each month to see date information 	

Feature Pass/Fail Criteria

6.1 Student account

Features	Pass Criteria
Login	App page will be show grade list page , student can watch student profile and have all of menu functions.
Login with Facebook	App will show facbook information in student profile

6.2 Advisor

Features	Pass Criteria
Advisor Contact	Show advisor in formation Name, Faculty, Major, Room, Email and Phone number
Advising Information	Show list of course that agree with advisor

6.3 Academic

Features	Pass Criteria
Grade List	Show course and grade of student in each semester and year.

	Show curriculum of students' faculty. If students studied, grade will show and have green point. If students are studying, it will show yellow point. If students don't study, it will show gray point.
Grade Summary	Grade in each semester will show in graph, and below graph it show group of course group by grade.

6.4 Student Schedule

Features	Pass Criteria
Class Schedule	Show schedule in current semester will show table with color on day and time that have class and have detail in each class below table.
Examination	Show examination information in this semester and below exams' month show detail in each courses
Previous semester	Show list of previous schedule class, can see course detail.

6.5 Pre-registration

Features	Pass Criteria
Pre-registration Result	Show pre-regist result and schedule include course information. If student already pre-regist, it will show schedule of pre-result that success.
Plan List	Show plan list that I have plan and pre-regist

	button will enable when the pre-regist period arrived
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6.6 Class Search

Features	Pass Criteria
Class search	Student can choose semester to search their course and show all course in each semester that student choose

6.7 App Setting

Features	Pass Criteria
Reset password	Get link to reset password in email that put before in reset password page
Rate us	Show Play store for rate application.
Log out	Log out AU Spark, comeback log-in page.

Version History

Version	Write by	Revision date	Approve by	Approve date	Outline
1	Kornkamol and Chotikar	24/4/2017			