

Manual Acceptance Tests

Prior to testing, the test fixtures should be loaded. This ensures validity and creates an expected initial state of the application. See the project README.
All tests are presented as follows:

User:

Module:

Before each:

Test Scenario	ID	Test case	Test steps	Pre Conditions	Expected result(s)	Status	Actual Result
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KEY:

User: The expected user of the module. This could be an instructor, student or both.	Test case: The aspect of the feature under test.
Module: The page or aspect of the system under test.	Test steps: The steps needed to reproduce the test.
Before each: Requisites of all tests in the module.	Pre conditions: IDs of other tests required to pass before conducting the test
Test scenario: The feature under test.	Expected result(s): The expected output of the test
ID: The test ID	Status: PASS or FAIL
Actual Result: The difference between the <i>Expected Result(s)</i> and the output of the test. (<i>Expected</i>) means all <i>Expected Result(s)</i> present.	

User: Student

Module: Student Courses Page Dashboard

Before each:

1. Login using 'test@student.gla.ac.uk' and 'password'.
2. Navigate to '/courses'.

Test Scenario	ID	Test case	Test steps	Pre Conditions	Expected result(s)	Status	Actual Result
Verify Breadcrumbs	SC1	View breadcrumbs	1. View 'breadcrumb' interface at top of page.		1. Displays 'Courses' with no active link.	PASS	(expected)
Verify Courses Table	SC2	View course information	1. View 'My Courses'.		1. Displays course information as in Table 1. 2. Displays no other entries. 3. Default order by start date, earliest first.	PASS	(expected)
	SC3	Click course link	1. View 'My Courses'. 2. Click 'COMPSCI202-Course Two'.		1. Redirects to 'courses/COMPSCI202/2/1234567'.	PASS	(expected)
	SC4	Reorder columns	1. View 'My Courses'. 2. Click each column header twice.		1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. 4. Other values in alpha-order.	PASS	(expected)
Verify Recent Pending Lab Surveys Table	SC5	View recent pending lab surveys	1. View 'Recent pending lab surveys'.		1. Display identical to Table 2. 2. Displays no other entries. 3. Default order by date, latest first.	PASS	(expected)
	SC6	Click lab survey link	1. View 'Recent pending lab surveys'. 2. Click 'Lab 9'.		1. Redirects to 'courses/COMPSCI101/1/lab/lab-9/1234567/survey/1'.	PASS	(expected)

	SC7	Reorder columns	<ol style="list-style-type: none"> 1. View 'Recent pending lab surveys'. 2. Click each column header twice 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. Other values in alpha-order. 	PASS	(expected)
Verify documentation	SC8	View welcome message	<ol style="list-style-type: none"> 1. View 'Check In' welcome message 		<ol style="list-style-type: none"> 1. Information is directed toward students. 	PASS	(expected)
	SC9	Tooltips	<ol style="list-style-type: none"> 1. View 'Check In' welcome message 2. Hover mouse over blue text 		<ol style="list-style-type: none"> 1. A popup message is displayed giving additional information regarding the term. 	PASS	(expected)
	SC10	Click explain this page	<ol style="list-style-type: none"> 1. Click 'Explain this page' button. 2. Click 'next' on each statement 3. Click 'finish' on last statement 		<ol style="list-style-type: none"> 1. Documentation matches the highlighted regions. 2. Return to top of page on completion. 	PASS	(expected)

Table 1

Start	End	Name	Support Status
21/09/2020	04/12/2020	COMPSCI101-Course One	None
11/01/2020	26/03/2021	COMPSCI202-Course Two	None

Table 2

Date	Course	Lab
20/11/2020	Course One	Lab 9
19/11/2020	Course One	Lab 8

18/11/2020	Course One	Lab 7
17/11/2020	Course One	Lab 6
16/11/2020	Course One	Lab 5

User: Instructor

Module: Instructor Courses Page Dashboard

Before each:

1. Login using 'test@glasgow.ac.uk' and 'password'.
2. Navigate to '/courses'.

Test Scenario	ID	Test case	Test steps	Pre conditions	Expected result(s)	Status	Actual Result
Verify Breadcrumbs	IC1	View breadcrumbs	1. View 'breadcrumb' interface at top of page.		1. Displays 'Courses' with no active link.	PASS	(expected)
Verify Courses Table	IC2	View course information	1. View 'My Courses'.		1. Displays course information as in Table 1. 2. Displays no other entries. 3. Default order by start date, earliest first.	PASS	(expected)
	IC3	Click course link	1. View 'My Courses'. 2. Click 'COMPSCI202-Course Two'.		1. Redirects to '/courses/COMPSCI202/2'	PASS	(expected)
	IC4	Reorder columns	1. View 'My Courses'. 2. Click each column header twice.		1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. 4. Other values in alpha-order.	PASS	(expected)
Verify Recent Labs Table	IC5	View recent pending lab surveys	1. View 'Recent Labs'.		1. Display identical to Table 2 2. Displays no other entries. 3. Default order by date, latest first.	PASS	(expected)
	IC6	Click lab survey link	1. View 'Recent Labs'. 2. Click 'Lab 9'.		1. Redirects to 'courses/COMPSCI101/1/lab/lab-9'.	PASS	(expected)

	IC7	Reorder columns	<ol style="list-style-type: none"> 1. View 'Recent Labs'. 2. Click each column header twice 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. Other values in alpha-order. 	PASS	(expected)
Verify documentation	IC8	View welcome message	<ol style="list-style-type: none"> 1. View 'Check In' welcome message 		<ol style="list-style-type: none"> 1. Information is directed toward instructors. 	PASS	(expected)
	IC9	Tooltips	<ol style="list-style-type: none"> 1. View 'Check In' welcome message 2. Hover mouse over blue text 		<ol style="list-style-type: none"> 1. A popup message is displayed giving additional information regarding the term. 	PASS	(expected)
	IC10	Click explain this page	<ol style="list-style-type: none"> 1. Click 'Explain this page' button. 2. Click 'next' on each statement 3. Click 'finish' on last statement 		<ol style="list-style-type: none"> 1. Documentation matches the highlighted regions. 2. Return to top of page on completion. 	PASS	(expected)

Table 3

Start	End	Name
21/09/20	04/12/20	COMPSCI101-Course One
11/01/21	26/03/21	COMPSCI202-Course Two

Table 4

Date	Course	Lab
20/11/20	Course One	Lab 9
19/11/20	Course One	Lab 8

18/11/20	Course One	Lab 7
17/11/20	Course One	Lab 6
16/11/20	Course One	Lab 5

User: Student

Module: Student Course Summary Dashboard

Before each:

1. Login using 'test@student.gla.ac.uk and 'password'.

Test Scenario	ID	Test case	Test steps	Pre condition	Expected result(s)	Status	Actual Result
Verify Breadcrumbs	SCS1	View breadcrumbs	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'breadcrumb' interface at top of page.		<ol style="list-style-type: none">1. Displays 'Courses / COMPSCI101 – 1 / 1234567 – Student Test'.2. Only 'Courses' is a valid link.	PASS	(expected)
	SCS2	Breadcrumb links functioning	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'breadcrumb' interface at top of page.3. Click 'Courses'.		<ol style="list-style-type: none">1. 'Courses' redirects to courses home page.	PASS	(expected)
Verify Pending Lab Surveys	SCS3	Pending lab survey table displays incomplete surveys up to current date	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'Pending Lab Surveys'.		<ol style="list-style-type: none">1. Displays lab information in Table 5.2. Displays no other lab surveys.3. Default order by date, latest first.	FAIL	Order is earliest first. All else as expected.
	SCS4	Survey button navigates to survey	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'Pending Lab Surveys'3. Click 'Complete Survey' in Lab 8 row.		<ol style="list-style-type: none">1. Redirects to 'courses/COMPSCI101/lab/lab-8/1234567/survey/1'.	PASS	(expected)
	SCS5	No labs message if no pending labs to complete.	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI202/2/1234567'.2. View 'Pending Lab Surveys'.		<ol style="list-style-type: none">1. Displays 'No pending labs to complete'.	PASS	(expected)

	SCS6	Reorder columns	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. View 'Pending Lab Surveys'. 3. Click each column header twice. 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. Times in time-order. Other values in alpha-order. 	FAIL	<p>Does not sort correctly by time order.</p> <p>All else as expected.</p>
Verify Completed Lab Surveys	SCS7	Completed lab surveys displayed	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 1. View 'Completed Lab Surveys' 		<ol style="list-style-type: none"> 1. Displays lab information in Table 6. 2. Displays no other lab surveys. 1. Default order by date, earliest first. 	PASS	(expected)
	SCS8	No labs message if no pending labs to complete	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI202/2/1234567' 1. View 'Completed Lab Surveys' 		<ol style="list-style-type: none"> 1. Displays 'No lab surveys completed' 	FAIL	Displays 'No pending labs to complete'
	SCS9	Reorder columns	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. View 'Completed Lab Surveys'. 1. Click each column header twice. 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. Times in time-order. 1. Other values in alpha-order. 	PASS	(expected)
Verify documentation	SCS10	Click explain this page	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. Click 'Explain this page' button. 3. Click 'next' on each statement 4. Click 'finish' on last statement 		<ol style="list-style-type: none"> 1. Documentation matches the highlighted regions. 2. Return to top of page on completion. 	PASS	(expected)

Verify instructor list	SCS11	Correct instructors present	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. View 'Course Instructors'. 		<ol style="list-style-type: none"> 1. Displays 'Instructor COMPSCI101' and 'Instructor Test'. 	PASS	(expected)
	SCS12	Message button emails instructor	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. View 'Course Instructors'. 3. Click 'message' next to 'Instructor COMPSCI101' 		<ol style="list-style-type: none"> 1. Native email application opens. 2. Recipient marked as 'l1@test.com'. 	PASS	(expected)

Table 5

Lab Name	Date	Start Time
Lab 9	20/11/20	13:00
Lab 8	19/11/20	09:00
Lab 7	18/11/20	13:00
Lab 6	17/11/20	09:00
Lab 5	16/11/20	13:00
Lab 4	15/11/20	09:00
Lab 3	14/11/20	13:00
Lab 2	13/11/20	09:00

Table 6

Lab Name	Date	Start Time	Responses	Risk Factor
Lab 1	12/11/20	13:00	[1][2][3]	25%

User: Instructor

Module: Student Course Summary Dashboard

Before each:

2. Login using 'test@student.gla.ac.uk' and 'password'.

Test Scenario	ID	Test case	Test steps	Pre conditions	Expected result(s)	Status	Actual Result
Verify Breadcrumbs	SCI1	View breadcrumbs	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'breadcrumb' interface at top of page.		<ol style="list-style-type: none">1. Displays 'Courses / COMPSCI101 – 1 / 1234567 – Test Student'.2. 'COMPSCI101- 1' is a valid link.3. 'Courses' is a valid link.	PASS	(expected)
	SCI2	Breadcrumb links functioning	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'breadcrumb' interface at top of page.3. Click 'Courses'.4. Navigate to 'courses/COMPSCI101/1/1234567'.5. View 'breadcrumb' interface at top of page.6. Click 'COMPSCI101-1'.		<ol style="list-style-type: none">1. 'Courses' redirects to '/courses'.2. 'COMPSCI101 – 1' redirects to '/courses/COMPSCI101/1'.	PASS	(expected)
Verify Pending Lab Surveys	SCI3	Pending lab survey table displays incomplete surveys up to current date	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'Pending Lab Surveys'.		<ol style="list-style-type: none">1. Displays lab information in Table 7.2. Displays no other lab surveys.3. Default order by date, latest first.	FAIL	Order is earliest first. All else as expected.
	SCI4	Instructor cannot navigate to survey.	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/1234567'.2. View 'Pending Lab Surveys'.		<ol style="list-style-type: none">1. No button to navigate to lab survey exists.	PASS	(expected)

	SCI5	No labs message if no pending labs to complete.	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI202/2/1234567' 2. View 'Pending Lab Surveys' 		<ol style="list-style-type: none"> 1. Displays 'No pending labs to complete'. 	PASS	(expected)
	SCI6	Reorder columns	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. View 'Pending Lab Surveys'. 3. Click each column header twice. 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending). 3. Dates in date-order. Times in time-order. Other values in alpha-order. 	FAIL	<p>Does not sort correctly by time order.</p> <p>All else as expected.</p>
Verify Completed Lab Surveys	SCI7	Completed lab surveys displayed.	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. View 'Completed Lab Surveys'. 		<ol style="list-style-type: none"> 1. Displays lab information in Table 8 2. Displays no other lab surveys 3. Default order by date, earliest first. 	PASS	(expected)
	SCI8	No labs message if no pending labs to complete.	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI202/2/1234567' 2. View 'Completed Lab Surveys' 		<ol style="list-style-type: none"> 1. Displays 'No lab surveys completed'. 	FAIL	Displays 'No pending labs to complete'
	SCI9	Reorder columns	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. View 'Completed Lab Surveys'. 3. Click each column header twice. 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. Times in time-order. Other values in alpha-order. 	PASS	(expected)
Verify documentation	SCI10	Click explain this page	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. Click 'Explain this page' button. 		<ol style="list-style-type: none"> 1. Documentation matches the highlighted regions. 	PASS	(expected)

			3. Click 'next' on each statement. 4. Click 'finish' on last statement.		2. Return to top of page on completion.		
Verify instructor list	SCI11	Correct instructors present	1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. View 'Course Instructors'.		1. Displays 'Instructor COMPSCI101' and 'Instructor Test'.	PASS	(expected)
	SCI12	Message button emails instructor	1. Navigate to 'courses/COMPSCI101/1/1234567'. 2. View 'Course Instructors'. 3. Click 'message' next to 'Instructor COMPSCI101'.		1. Native email application opens. 2. Recipient marked as 'l1@test.com'.	PASS	(expected)

Table 7

Lab Name	Date	Start Time
Lab 9	20/11/20	13:00
Lab 8	19/11/20	09:00
Lab 7	18/11/20	13:00
Lab 6	17/11/20	09:00
Lab 5	16/11/20	13:00
Lab 4	15/11/20	09:00
Lab 3	14/11/20	13:00
Lab 2	13/11/20	09:00

Table 8

Lab Name	Date	Start Time	Responses	Risk Factor
Lab 1	12/11/2020	13:00	[1][2][3]	25%

User: Instructor

Module: Course Summary Dashboard

Before each:

1. Login using 'test@glasgow.ac.uk' and 'password'.

Test Scenario	ID	Test case	Test steps	Pre condition	Expected result(s)	Status	Actual Result
Verify Breadcrumbs	CS1	View breadcrumbs	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1'.2. View 'breadcrumb' interface at top of page.		<ol style="list-style-type: none">1. Displays 'Courses / COMPSCI101 – 1'.2. 'COMPSCI101- 1' is not a link3. 'Courses' is a valid link	PASS	(expected)
	CS2	Breadcrumb links functioning	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1'.2. View 'breadcrumb' interface at top of page.3. Click 'Courses'.		<ol style="list-style-type: none">1. 'Courses' redirects to '/courses'	PASS	(expected)
Verify Students Table	CS3	No students shown when none are at risk	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1'.2. View 'Students'.		<ol style="list-style-type: none">1. Table is empty.	PASS	(Expected)
	CS4	Students needing support filter works	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1'.2. View 'Students'.3. Uncheck the 'Show only students needing support' box.4. Check again.		<ol style="list-style-type: none">1. Table displays '1234567 – Student Test' and '2345678 – Student CS101Term1' when box is checked.2. No other students present.3. Reverts when unchecked.	PASS	(Expected)
	CS5	Student link works	<ol style="list-style-type: none">1. Click '1234567 – Student test' in 'Students' table.	CS4	<ol style="list-style-type: none">1. Redirects to 'courses/COMPSCI101/1/1234567'.	PASS	(Expected)

	CS6	Reorder columns	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1'. 2. View 'Students'. 3. Click each column header twice. 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending). 3. Values in alpha-order. 	PASS	(Expected)
Verify Labs Table	CS7	All course labs displayed	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1'. 2. View 'Labs'. 		<ol style="list-style-type: none"> 1. Displays lab information in Table 9 2. Displays no other lab surveys 3. Default order by date, earliest first. 	PASS	(Expected)
	CS8	Lab link works	<ol style="list-style-type: none"> 1. Click 'Lab 1' in 'Labs' table. 	CS7	<ol style="list-style-type: none"> 1. Redirects to 'courses/COMPSCI101/1/labs/lab-1'. 	PASS	(Expected)
	CS9	Show only open labs filter works	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1'. 2. View 'Labs'. 3. Uncheck the 'Show only open labs' box. 	CS7	<ol style="list-style-type: none"> 1. 'Lab 10' row is removed when box is checked. 2. Reverts when unchecked. 	PASS	(Expected)
	CS11	Reorder columns	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1' 2. View 'Labs'. 3. Click each column header twice. 		<ol style="list-style-type: none"> 1. Orders table by values in column clicked. 2. Clicking again changes the order (e.g. ascending -> descending) 3. Dates in date-order. Times in time-order. Other values in alpha-order. 	FAIL	Does not sort correctly by time order. All else as expected.
Verify documentation	CS12	Click explain this page	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1'. 2. Click 'Explain this page' button. 3. Click 'next' on each statement 4. Click 'finish' on last statement 		<ol style="list-style-type: none"> 1. Documentation matches the highlighted regions. 2. Return to top of page on completion. 	PASS	(Expected)
Verify instructor list	CS13	Correct instructors present	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1' 		<ol style="list-style-type: none"> 1. Displays 'Instructor COMPSCI101' and 'Instructor Test'. 	PASS	(Expected)

			2. View 'Course Instructors'.				
	CS14	Message button emails instructor	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1 2. View 'Course Instructors'. 3. Click 'message' next to 'Instructor COMPSCI101' 		<ol style="list-style-type: none"> 1. Native email application opens. 2. Recipient marked as 'l1@test.com' 	PASS	(Expected)

Table 9

Lab Name	Date	Start Time	Status
Lab 1	12/11/20	01:00	Open
Lab 2	13/11/20	09:00	Open
Lab 3	14/11/20	01:00	Open
Lab 4	15/11/20	09:00	Open
Lab 5	16/11/20	01:00	Open
Lab 6	17/11/20	09:00	Open
Lab 7	18/11/20	01:00	Open
Lab 8	19/11/20	09:00	Open
Lab 9	20/11/20	01:00	Open
Lab 10	21/11/20	09:00	Inactive

User: Instructor

Module: Lab Summary Dashboard

Test Scenario	ID	Test case	Test steps	Pre condition	Expected result(s)	Status	Actual Result
Verify Breadcrumbs	LS1	View breadcrumbs	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/lab/lab-1'.2. View 'breadcrumb' interface at top of page.		<ol style="list-style-type: none">1. Displays 'Courses / COMPSCI101 – 1 / Lab 1'.2. 'Lab 1' is not a valid link.3. 'COMPSCI101- 1' is a valid link.4. 'Courses' is a valid link	PASS	(Expected)
	LS2	Breadcrumb links functioning	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/lab/lab-1'.2. View 'breadcrumb' interface at top of page.3. Click 'Courses'.4. Click 'COMPSCI101 – 1'.		<ol style="list-style-type: none">1. 'Courses' redirects to '/courses'.2. 'COMPSCI101- 1' redirects to '/courses/COMPSCI101/1'.	PASS	(Expected)
Verify Student Responses Table	LS3	Student responses are displayed correctly	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/lab/lab-1'.2. View 'Student Responses'.		<ol style="list-style-type: none">1. Table is the same as Table 10.	PASS	(Expected)
	LS4	No students shown when no responses given.	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/lab/lab-2'.2. View 'Student Responses'		<ol style="list-style-type: none">1. No table is shown.2. 'No responses received' message is shown.	PASS	(Expected)
	LS5	Student link functions correctly	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/lab/lab-1'.2. View 'Student Responses'.3. Click '1234567 – Student Test'.		<ol style="list-style-type: none">1. Redirects to 'courses/COMPSCI101/1/1234567'	PASS	(Expected)
	LS6	Reorder columns	<ol style="list-style-type: none">1. Navigate to 'courses/COMPSCI101/1/lab/lab-1'2. View 'Student Responses'3. Click each column header twice.		<ol style="list-style-type: none">1. Orders table by values in column clicked.2. Clicking again changes the order (e.g. ascending -> descending)	PASS	(Expected)

					3. Risk factor sorted by numeric value. 4. Other values in alpha-order.		
Verify XY Question Response Display	LS7	Question information is correct	1. Navigate to 'courses/COMPSCI101/1/lab/lab-1'. 2. View 'XY Question Responses'.		1. Three XY grids are shown. 2. The first is titled 'interest-difficulty', labelled 'easy' at the top, 'hard' at the bottom, 'interesting' on the right, 'boring' on the left. 3. The second is titled 'planning-familiarity', labelled 'familiar' at the top, 'unfamiliar' at the bottom, 'easy to plan' on the right, 'unable to plan' on the left.	PASS	(Expected)
	LS8	Student responses are displayed correctly, with stacked responses for shared coordinates.			1. Grid 1 shows responses at (-10, -10) and (-9, -9). 2. Grid 2 shows a response at (0, 0) with the label '2'. 3. Grid 3 shows responses at (-10, -10), (9, 9)	PASS	(Expected)
	LS9	Danger zones are displayed correctly.			1. Grid 1 shows the bottom left region as red. The regions above and to the right of the bottom left region are coloured yellow.	PASS	(Expected)

Table 10

Student	Responses	Risk Factor
2345678 – Student CS101Term1	[1][2][3]	50%
1234567 – Student Test	[1][2][3]	25%

User: Student / Instructor
Module: Early Warning System

Test Scenario	ID	Test case	Test steps	Pre condition	Expected result(s)	Status	Actual Result
Risk Factor Calculation	EWS1	Survey responses with no risk factor.	<ol style="list-style-type: none"> 1. Login as student. 2. Navigate to 'courses/COMPSCI101/1/lab/lab-2/1234567/survey/1' 3. Respond to all XY questions at coordinate 9,9 (top-right). 4. Respond to journal question with 'Everything is excellent.' 5. Follow redirect to '/courses/COMPSCI7081/1/1234567' 		<ol style="list-style-type: none"> 1. Risk factor for 'Lab 2' is empty. 2. No responses to 'Lab 2' are coloured. 	PASS	(Expected)
	EWS2	Survey responses with risk factor	<ol style="list-style-type: none"> 1. Login as student. 2. Navigate to 'courses/COMPSCI101/1/lab/lab-3/1234567/survey/1'. 3. Respond to first XY question at coordinate -10,-10. (DANGER zone) 4. Respond to second XY question at coordinate -10,-4. (WARNING zone) 5. Respond to third XY question at coordinate 9,9. 6. Skip sentiment question. 7. Navigate to '/courses/COMPSCI7081/1/1234567'. 		<ol style="list-style-type: none"> 1. Risk factor for 'Lab 3' is 33.3% (approx.) $((3 + 1 + 0 + 0) / 12)$ 2. Question 1 response is red. 3. Question 2 response is yellow. 	PASS	(Expected)
Automatic flagging of students at risk	EWS3	High risk factor for latest 2 labs flags marks student for	<ol style="list-style-type: none"> 1. Login as student. 2. Navigate to 'courses/COMPSCI101/1/lab/lab-9/1234567/survey/1' 	Test is NOT completed at a time which is divisible by	<ol style="list-style-type: none"> 1. Student with GUID 1234567 marked as 'Will be flagged automatically' 	PASS	(Expected)

		automatic flagging.	<ol style="list-style-type: none"> Respond to first XY question at coordinate -10,-10. (DANGER zone) Respond to second XY question at coordinate -10,-10. (DANGER zone) Respond to third XY question at coordinate -10,-10 (DANGER zone). Respond to journal question with 'Everything is so bad'. Navigate to 'courses/COMPSCI101/1/lab/lab-8/1234567/survey/1' Repeat steps 1-6 Navigate to '/courses/COMPSCI7081/1/1234567' Login as instructor. Navigate to 'courses/COMPSCI101/1'. 	5 minutes (this will cause the flag to be applied).			
	EWS4	Send flags to students at interval.	<ol style="list-style-type: none"> Login as instructor. Navigate to 'courses/COMPSCI101/1'. 	EWS3 is complete. A 5 minute division of the time has passed since its completion.	<ol style="list-style-type: none"> Student with GUID 1234567 marked as 'AUTOMATICALLY FLAGGED' in course summary page's student table. Date matches date of EWS3. Time in table is at the closest 5 minute interval after completion of EWS3. 	PASS	(Expected)
	EWS5	Verify student flag view	<ol style="list-style-type: none"> Login as student. Navigate to 'courses/COMPSCI101/1/1234567'. 	EWS3, EWS4	<ol style="list-style-type: none"> Support status indicates 'flagged automatically'. Date matches date of EWS3. Time is at the closest 5 minute interval after completion of EWS3. Reason displays description of automatic flag based on course COMPSCI101's risk thresholds. 'Remove support flag' button NOT present. 	FAIL	<p>Time reads 9:05 (expected 21:05).</p> <p>All else as expected.</p>

	EWS6	Verify instructor flag view	<ol style="list-style-type: none"> 1. Login as instructor. 2. Navigate to 'courses/COMPSCI101/1/1234567'. 	EWS3, EWS4	<ol style="list-style-type: none"> 1. Support status indicates 'flagged automatically'. 2. Date matches date of EWS3. 3. Time is at the closest 5 minute interval after completion of EWS3. 4. Reason displays description of automatic flag based on course COMPSCI101's risk thresholds. 5. 'Remove support flag' button present. 	FAIL	<p>Time reads 9:05 (expected 21:05).</p> <p>All else as expected.</p>
Instructors can configure danger zones for question responses	EWS7	Add danger zone.	<ol style="list-style-type: none"> 1. Login as instructor. 2. Navigate to 'courses/COMPSCI101/1/lab/lab-1 3. Click twice on the region in the second XY grid where a response is marked in blue to set danger zone. 4. Click 'update danger zones' button. 	EWS2	<ol style="list-style-type: none"> 1. Risk factor increase for both students to 75% (2345678) and 50% (12345670). 2. Question responses for Q2 for both students update to red colour. 	PASS	(Expected)
	EWS8	Add warning zone.	<ol style="list-style-type: none"> 1. Login as instructor. 2. Navigate to 'courses/COMPSCI101/1/lab/lab-1 3. Click once on the region in the third XY grid where a response is marked in blue to set warning zone. 4. Click 'update danger zones' button. 	EWS7	<ol style="list-style-type: none"> 1. Risk factor increases for 1234567 to 58%. 2. Question response for Q3 for Student Test updates to yellow colour. 	PASS	(Expected)
	EWS9	Remove danger zone.	<ol style="list-style-type: none"> 1. Login as instructor. 2. Navigate to 'courses/COMPSCI101/1/lab/lab-1' 3. Click on danger zone in the second XY grid where a response is marked in blue to clear danger zone. 4. Click. 'update danger zones' button. 	EWS7, EWS8	<ol style="list-style-type: none"> 1. Risk factor decreases for both students to 50% (2345678) and 33% (1234567). 2. Question responses for Q2 have no colour. 	PASS	(Expected)
Course thresholds for risk are configurable	EWS10	Thresholds change students at risk.	<ol style="list-style-type: none"> 1. Login as instructor. 2. Navigate to 'courses/COMPSCI101/1/lab/lab-9' 	EWS4, EWS9, EWS13	<ol style="list-style-type: none"> 1. No students at risk shown at step 6. 	PASS	(Expected)

			<ol style="list-style-type: none"> Remove danger zone from XY Question 2 and 3. Navigate to 'courses/COMPSCI101/1/1234567'. Remove risk flag. Navigate to 'courses/COMPSCI101/1' Alter risk thresholds using slider and number box. Set consecutive labs to 1 and risk threshold to 55%. Click 'submit'. Alter risk threshold to 50%. Click 'submit'. 		<ol style="list-style-type: none"> Risk threshold slider and number box display same value on value change. Submitted form displays the new thresholds No students at risk shown at step 8. '1234567 – Student Test' marked as 'Will be flagged automatically' after step 10. 		
Verify manual student flagging	EWS11	Student can manually self flag	<ol style="list-style-type: none"> Login as student. Navigate to 'courses/COMPSCI202/2/1234567' Add 'I need help' description in support status form. Click 'Flag for support' Navigate to 'courses'. 	Student is not flagged.	<ol style="list-style-type: none"> Support status indicates 'self-flagged'. Date matches date of click. Time matches time of click. Reason displays 'I need help' 'Remove support flag' button present. No 'flag for support' button present. Instructor 'courses/COMPSCI202/2/1234567' page displays identical information. Student '/courses' page course table displays 'self flagged' for COMPSCI101' Instructor 'courses/COMPSCI202/2/' page student table shows 'Student Test' as 'self-flagged'. Date matches. 	FAIL	<p>Time reads 9:23 (expected 21:23) on student course summary page.</p> <p>All else as expected.</p>

	EWS12	Student can remove their own flag	<ol style="list-style-type: none"> 1. Login as student. 2. Navigate to 'courses/COMPSCI202/2/1234567' 3. Click 'Remove support flag' in support status form. 	EWS11	<ol style="list-style-type: none"> 1. Support status displays default 'flag for support' form. 2. Flag removed from instructor views (see EWS11) 3. Flag removed from student course table (see EWS11) 	PASS	(Expected)
	EWS13	Instructor can remove student flag.	<ol style="list-style-type: none"> 1. Login as instructor 2. Navigate to 'courses/COMPSCI202/2/1234567' 3. Click 'Remove support flag' in support status form. 	EWS11	<ol style="list-style-type: none"> 1. See EWS12 	PASS	(Expected)
Verify manual instructor Flagging	EWS14	Instructor can manually flag a student	<ol style="list-style-type: none"> 1. Login as instructor. 2. Navigate to 'courses/COMPSCI202/2/1234567' 3. Add 'Student needs help' description in support status form. 4. Click 'Flag for support' 5. Navigate to 'courses' 		<ol style="list-style-type: none"> 1. Support status indicates 'flagged by instructor'. 2. Date matches date of click. 3. Time matches time of click. 4. Reason displays 'Student needs help' 5. 'Remove support flag' button present. 6. No 'flag for support' button present. 7. Student 'courses/COMPSCI202/2/1234567' page displays identical information. 8. Student '/courses' page course table displays 'self flagged' for COMPSCI101' 9. Instructor 'courses/COMPSCI101/1/' page student table shows 'Student Test' as 'self-flagged'. Date matches. 	PASS	(Expected)
	EWS15	Instructor can remove instructor flag.	<ol style="list-style-type: none"> 1. Login as instructor 2. Navigate to 'courses/COMPSCI202/2/1234567' 	EWS14	<ol style="list-style-type: none"> 1. See EWS12 	PASS	(Expected)

			3. Click 'Remove support flag' in support status form.				
	EWS16	Student cannot remove instructor flag	1. Login as student 2. Navigate to 'courses/COMPSCI202/2/1234567'	EWS14	1. No 'Remove support flag' button present.	PASS	(Expected)

User: Student

Module: Survey Instrument

Test Scenario	ID	Test case	Test steps	Pre condition	Expected result(s)	Status	Actual Result
XY Instrument	SI1	Students can register an XY response.	1. Login as a student 2. Go to 'courses/COMPSCI101/1/lab/lab-5/1234567/survey/1' 3. Click the cell at -10, -10 4. Click 'next question'		1. Survey advances to next XY question	PASS	(Expected)
	SI2	Cannot select multiple cells.	1. (Continues using next question from SI1) 2. Click the cell at 1, 1. 3. Click the cell at 9,9. 4. Click 'next question'	SI1	1. Cell is removed from 1, 1 2. Cell is added to 9,9 3. Survey advances to next XY question	PASS	(Expected)
	SI3	Cannot submit a blank response.	1. (Continues using next question from SI2) 2. Ensure no cells are selected 3. Click 'next question'	SI2	1. Warning message shown. 2. Survey does not advance.	PASS	(Expected)
	SI4	XY Questions can be skipped	1. (Continues using next question from SI3) 2. Click ' skip question'	SI3	1. Survey advances to next XY question	PASS	(Expected)
Sentiment analysis instrument	SI5	Students cannot submit a blank response	1. (Continues using next question from SI4) 2. Click 'submit'	SI4	1. Warning message shown. 2. Survey does not advance.	PASS	(Expected)
	SI6	Nudge interface corresponds to text input.	1. (Continues using next question from SI4) 2. Type into the text box up to approx 200 characters. 3. Delete the text gradually.	SI4	1. Nudge meter fills with more characters. 2. Nudge meter goes from red to yellow to green on text addition. 3. Nudge meter empties with less characters. 4. Nudge meter goes from green to yellow to red on text removal.	PASS	(Expected)
	SI7	Students can enter a qualitative journal	1. (Continues using next question from SI4)	SI4 (May require	1. Survey response submits.	PASS	(Expected)

		response in the survey and submit survey	<ol style="list-style-type: none"> 2. Enter the text 'This is great'. 3. Click 'submit' 	different survey)	<ol style="list-style-type: none"> 2. Redirected to 'courses/COMPSCI101/1/1234567'. 		
	SI8	Sentiment questions can be skipped	<ol style="list-style-type: none"> 1. (Continues using next question from SI4) 2. Click 'skip and submit' 	SI4 (May require different survey)	<ol style="list-style-type: none"> 1. Survey response submits. 2. Redirected to 'courses/COMPSCI101/1/1234567'. 	PASS	(Expected)
Response processing and display	SI9	Answered questions shown	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. View 'Completed lab surveys' lab 5. 		<ol style="list-style-type: none"> 1. Buttons for questions 1, 2, and 4 are shown. 	PASS	(Expected)
	SI10	Skipped questions not shown			<ol style="list-style-type: none"> 1. A button for question 3 is not shown. 	PASS	(Expected)
	SI11	Lab not in pending table			<ol style="list-style-type: none"> 1. Lab 5 is not in the pending lab table. 	PASS	(Expected)
	SI12	Question response information is displayed on hover	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. View 'Completed lab surveys'. 3. Hover over each button in the responses column. 		<ol style="list-style-type: none"> 1. Popover appears. 2. Popover title is question number. 3. Question title is present. 4. Question text is present. 	PASS	(Expected)
	SI13	Question response information persists on click.	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. View 'Completed lab surveys'. 3. Click button '1'. 4. Move mouse away from button and click. 		<ol style="list-style-type: none"> 1. Popover persists when mouse is moved away. 2. Clicking outside the popover closes it. 	PASS	(Expected)
	SI14	XY response information correct	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. View 'Completed lab surveys'. 5. Hover over question '1' in lab 5 		<ol style="list-style-type: none"> 1. Question title is 'Interest/Difficulty' 2. Question text is 'How interesting did you find the task? How difficult did you *personally* find it?' 3. Subtitle of 'XY Response' present. 4. Displays 'Interest: 100% Boring' 5. Displays 'Difficulty: 100% Hard' 	PASS	(Expected)
	SI15	Sentiment question response information correct	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/1234567' 2. View 'Completed lab surveys'. 6. Hover over question '4' in lab 5 		<ol style="list-style-type: none"> 1. Question title is 'Journal'. 2. Question text contains 'Reflect on the course so far.'. 3. Subtitle of 'Response' present. 4. Response displays 'This is great'. 	PASS	(Expected)

	SI16	Sentiment analysis matches positive text sentiment.	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/lab/lab-4/1234567/survey/1' 2. Skip all XY questions. 3. At the journal entry question, enter 'This is excellent. I am learning lots!' 4. Submit the survey. 5. Navigate to 'courses/COMPSCI101/1/1234567' 6. View 'Completed lab surveys'. 7. Hover over Q4 in lab 4. 	< SI16	<ol style="list-style-type: none"> 1. The sentiment analysis response information to the completed survey displays a positive classification. 2. Subtitle of 'Analysis' is present. 3. Displays 'Classification: Positive' 4. Displays confidence. 	PASS	(Expected)
	SI17	Sentiment analysis matches negative text sentiment.	<ol style="list-style-type: none"> 1. Navigate to 'courses/COMPSCI101/1/lab/lab-6/1234567/survey/1' 2. Skip all XY questions. 3. At the journal entry question, enter 'This is awful. I am really struggling and want to leave the course.' 4. Submit the survey. 5. Navigate to 'courses/COMPSCI101/1/1234567' 6. View 'Completed lab surveys'. 7. Hover over Q4 in lab 6. 	< SI16	<ol style="list-style-type: none"> 1. The sentiment analysis response information to the completed survey displays a negative classification. 2. Subtitle of 'Analysis' is present. 3. Displays 'Classification: Negative' 4. Displays confidence. 	PASS	(Expected)