

Test case matrix for the Maintain Course Details use case (Contd.)

Test case ID	Scenario and description	Input 1	Input 2	Input 3	Input 4	Input 5	Input 6	Input 7	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
		Course ID	Course Name	Course Duration	Course Title	Course Price	Teacher	Course Language				
TC ₁₁	Scenario 5- Update a course	9650A	CPP	50 Days	CPP Basics	Rs300	Love	Hindi	Yes	n/a	Course is updated successfully	-
TC ₁₂	Scenario 6- Update a course alternative flow: Invalid entry	9650A	Rwe232	*	*	*	*	*	n/a	n/a	Invalid Course name	Course Name is not in the specified format.
TC ₁₃		9650A	CPP	dvdf	*	*	*	*	n/a	n/a	Invalid Durn	Duration is not in the specified format.
TC ₁₄		9650A	CPP	50 Days	239	*	*	*	n/a	n/a	Invalid title	Course title is not in the specified format.
TC ₁₅		9650A	CPP	50 Days	CPP Basics	Dfdf	*	*	n/a	n/a	Invalid Price	Price is not in the specified format.
TC ₁₆		9650A	CPP	50 Days	CPP Basics	Rs300	343	*	n/a	n/a	Invalid teacher name	Teacher name is not in the specified format.
TC ₁₇		9650A	CPP	50 Days	CPP Basics	Rs300	Love	3445	n/a	n/a	Invalid language	Language is not in the specified format.
TC ₁₈	Scenario 7- Update a course alternative flow: Course not found	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course not found	Course with the specified code does not exist in the database.
TC ₁₉	Scenario 8- Update cancelled	9650A	CPP	50 Days	CPP	Rs300	Love	Hindi	No	n/a	Main screen of course appears	
TC ₂₀	Scenario 9- Update a course alternative flow: User exits	*	*	*	*	*	*	*	n/a	n/a	User is allowed to exit and returns to the Main menu	
TC ₂₁	Scenario 10- Delete a course	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	Course is deleted successfully	

(Contd.)

Table 6.19 Test case matrix for the Maintain Course Details use case (*Contd.*)

Test case ID	Scenario and description	Input 1 Course ID	Input 2 Course Name	Input 3 Course Duration.	Input 4 Course Title.	Input 5 Course Price.	Input 6 Teacher	Input 7 Course Language	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
TC ₂₂	Scenario 11-Delete a course alternative flow: Course not found	9650B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course not found	Course with the specified ID does not exist in the database.
TC ₂₃	Scenario 12-Delete a course alternative flow: Delete cancelled	9650B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No	Main screen of course appears	User does not confirm the delete operation.
TC ₂₄	Scenario 13-Delete a course alternative flow: Deletion not allowed	9650B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Deletion not allowed	Course is already issued.
TC ₂₅	Scenario 14-Delete a course alternative flow: User exits	*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	
TC ₂₆	Scenario 15-View a course	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course is displayed successfully	The course details are displayed.
TC ₂₇	Scenario 16-View a course alternative flow: Course not found	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course not found	Course with the specified ID does not exist in the database.
TC ₂₈	Scenario 17-View a course alternative flow: User exits	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	

Test case matrix for the Maintain Student Details use case (Contd.)

Test case ID	Scenario and description	Input 1	Input 2	Input 3	Input 4	Input 5	Input 6	Input 7	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
		Student ID	Student Name	Student Mail	Student Ph no	Student Grade	Alt mail	Student Alt ph no				
TC ₁₁	Scenario 5- Update a Student	9650A	ANSHU	t@mail.com	123445	Xii		235454	Yes	n/a	Student is updated successfully	-
TC ₁₂	Scenario 6- Update a Student alternative flow: Invalid entry	9650A	Rwe232	*	*	*	*	*	n/a	n/a	Invalid Student name	Student Name is not in the specified format.
TC ₁₃		9650A	ANSH	dvdf	*	*	*	*	n/a	n/a	Invalid Durn	Mail is not in the specified format.
TC ₁₄		9650A	ANSH	t@mail.com	239Ad	*	*	*	n/a	n/a	Invalid Ph no	Student Ph no is not in the specified format.
TC ₁₅		9650A	ANSH	t@mail.com	123445	Df433	*	*	n/a	n/a	Invalid Grade	Grade is not in the specified format.
TC ₁₆		9650A	ANSH	t@mail.com	123445	Xii	343	*	n/a	n/a	Invalid Alt name	Alt mail name is not in the specified format.
TC ₁₇		9650A	ANSH	t@mail.com	123445	Xii	R@mai	3445	n/a	n/a	Invalid Alt ph no	Alt ph no is not in the specified format.
TC ₁₈	Scenario 7- Update a Student alternative flow: Student not found	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student not found	Student with the specified code does not exist in the database.
TC ₁₉	Scenario 8- Update cancelled	9650A	ANSHU	t@mail.com	ANSH	Xii		235454	No	n/a	Main screen of Student appears	
TC ₂₀	Scenario 9- Update a Student alternative flow: User exits	*	*	*	*	*	*	*	n/a	n/a	User is allowed to exit and returns to the Main menu	
TC ₂₁	Scenario 10- Delete a Student	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	Student is deleted successfully	

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Table 6.19 Test case matrix for the Maintain Student Details use case (*Contd.*)

Test case ID	Scenario and description	Input 1 Student ID	Input 2 Student Name	Input 3 Student Mail.	Input 4 Student Ph no.	Input 5 Student Grade.	Input 6 Alt mail	Input 7 Student Alt ph no	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
TC ₂₂	Scenario 11-Delete a Student alternative flow: Student not found	9650B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student not found	Student with the specified ID does not exist in the database.
TC ₂₃	Scenario 12-Delete a Student alternative flow: Delete cancelled	9650B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No	Main screen of Student appears	
TC ₂₄	Scenario 13-Delete a Student alternative flow: Deletion not allowed	9650B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Deletion not allowed	Student is already issued.
TC ₂₅	Scenario 14-Delete a Student alternative flow: User exits	*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	The Student details are displayed.
TC ₂₆	Scenario 15-View a Student	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student is displayed successfully	
TC ₂₇	Scenario 16-View a Student flow: Student not found	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student not found	Student with the specified ID does not exist in the database.
TC ₂₈	Scenario 17-View a Student flow: User exits	9650A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	

TEST CASE MATRIX FOR LOGIN

Test Case ID	Scenario Name & description	Input1 Login ID	Input 2 Password	Input 3 Old password	Input4 New password	Input 5 Confirm Password	Expected Output	Remarks (if any)
TC1	Scenario 1-Login	Valid input	Valid input	n/a	n/a	n/a	User is allowed to login	-
TC2	Scenario 2-Login alternative flow: Invalid entry	Invalid input	Valid input	n/a	n/a	n/a	Login ID invalid	Login ID is not in the specified format
TC3	Scenario 2-Login alternative flow: Invalid entry	Valid input	Valid input	n/a	n/a	n/a	Login id invalid	Login ID does not exist in the database
TC4	Scenario 2-Login alternative flow: Invalid entry	Valid Input	Invalid Input	n/a	n/a	n/a	Password Invalid	Password is not in the specified format
TC5	Scenario 2-Login alternative flow: Invalid entry	Valid Input	Valid Input	n/a	n/a	n/a	Password Invalid	Password does not exist in database
TC6	Scenario 2-Login alternative flow: Invalid entry	Invalid Input	Invalid Input	n/a	n/a	n/a	Login ID and password Invalid	Login ID and password are not in the specified format.
TC7	Scenario 3-Login alternative flow: User exits	Valid/invalid input	Valid/invalid input	n/a	n/a	n/a	User comes out of the system	-
TC8	Scenario 4-Change password	Valid input	n/a	Valid Input	Valid input	Valid Input	User is allowed to change password	Password is changed in the database
TC9	Scenario 5-Change password alternate flow: Invalid entry	Invalid input	n/a	Valid/Invalid input	Valid/invalid input	Valid/Invalid input	Old Password invalid	Login ID is not in the specified format

TC10	Scenario 5- Change password alternative flow: Invalid entry	Valid input	n/a	Invalid input	Valid/ Invalid input	Valid/ Invalid input	Old password invalid	If the old password is not valid, other entries become don't care entries
TC11	Scenario 5- Change password alternative flow: Invalid entry	Valid input	n/a	Valid input	Invalid Input	Valid/ invalid input	New password invalid	Password is not in the specified format
TC12	Scenario 5- Change password alternative flow: Invalid entry	Valid input	n/a	Valid input	Valid Input	Valid input	Confirm password does not match the new password	New and Confirm password entries are different
TC13	Scenario 6- Change password alternative flow: User exits	Valid/ Invalid input	n/a	Valid/ invalid input	Valid/ invalid input	Valid/ invalid input	User is allowed to exit and return to login screen	-

Test Case ID	Scenario Name & description	Input1 Login ID	Input 2 Password	Input 3 Old password	Input4 New password	Input 5 Confirm Password	Expected Output	Remarks (if any)
TC1	Scenario 1-Login	Valid input	Valid input	n/a	n/a	n/a	User is allowed to login	-
TC2	Scenario 2-Login alternative flow: Invalid entry	Invalid input	Valid input	n/a	n/a	n/a	Login ID invalid	Login ID is not in the specified format
TC3	Scenario 2-Login alternative flow: Invalid entry	Valid input	Valid input	n/a	n/a	n/a	Login id invalid	Login ID does not exist in the database
TC4	Scenario 2-Login alternative flow: Invalid entry	Valid Input	Invalid Input	n/a	n/a	n/a	Password Invalid	Password is not in the specified format
TC5	Scenario 2-Login alternative flow: Invalid entry	Valid Input	Valid Input	n/a	n/a	n/a	Password Invalid	Password does not exist in database
TC6	Scenario 2-Login alternative flow: Invalid entry	Invalid Input	Invalid Input	n/a	n/a	n/a	Login ID and password Invalid	Login ID and password are not in the specified format.
TC7	Scenario 3-Login alternative flow: User exits	Valid/invalid input	Valid/invalid input	n/a	n/a	n/a	User comes out of the system	-
TC8	Scenario 4-Change password	Valid input	n/a	Valid Input	Valid input	Valid Input	User is allowed to change password	Password is changed in the database
TC9	Scenario 5-Change password alternate flow: Invalid entry	Invalid input	n/a	Valid/Invalid input	Valid/invalid input	Valid/Invalid input	Old Password invalid	Login ID is not in the specified format

TC10	Scenario 5- Change password alternative flow: Invalid entry	Valid input	n/a	Invalid input	Valid/ Invalid input	Valid/ Invalid input	Old password invalid	If the old password is not valid, other entries become don't care entries
TC11	Scenario 5- Change password alternative flow: Invalid entry	Valid input	n/a	Valid input	Invalid Input	Valid/ invalid input	New password invalid	Password is not in the specified format
TC12	Scenario 5- Change password alternative flow: Invalid entry	Valid input	n/a	Valid input	Valid Input	Valid input	Confirm password does not match the new password	New and Confirm password entries are different
TC13	Scenario 6- Change password alternative flow: User exits	Valid/ Invalid input	n/a	Valid/ invalid input	Valid/ invalid input	Valid/ invalid input	User is allowed to exit and return to login screen	-

Test case matrix for maintain course details
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Test case matrix for maintain course details

Test case matrix for the Maintain Course Details use case

Test case ID	Scenario and description	Input 1	Input 2	Input 3	Input 4	Input 5	Input 6	Input 7	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
		Course ID	Course Name	Course Duration	Course Title	Course Price	Teacher	Course Language				
TC1	Scenario 1-Add a course	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	n/a	n/a	Course added Successfully	–
TC2	Scenario 2-Add a course alternative flow: Invalid entry	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/Invalid input	n/a	n/a	Invalid course ID	Course ID is not in the specified format. Course name becomes 'do not care'.
TC3		Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Course Name	Course Name is not in the specified format.
TC4		Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Duration	DURATION is not specified format.
TC5		Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid title	Course title is not in the specified format.
TC6		Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Price	Price is not in the specified format.
TC7		Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	n/a	n/a	Invalid teacher name	Teacher name is not in the specified format.
TC ₈		Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	n/a	n/a	Invalid language	Language is not in the specified format.
TC ₉	Scenario 3Add a course alternative flow: Course ID already exists	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	n/a	n/a	Course ID already exists	The course with the same ID is already present in the database.
TC10	Scenario 4Add a course alternative flow: User exits	Valid/invalid input	Valid /invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	User is allowed to exit and returns to the Main menu	

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Test case matrix for the Maintain Course Details use case (Contd.)

Test case ID	Scenario and description	Input 1	Input 2	Input 3	Input 4	Input 5	Input 6	Input 7	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
		Course ID	Course Name	Course Duration	Course Title	Course Price	Teacher	Course Language				
TC ₁₁	Scenario 5- Update a course	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Yes	n/a	Course is updated successfully	-
TC ₁₂	Scenario 6- Update a course alternative flow: Invalid entry	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Course name	Course Name is not in the specified format.
TC ₁₃		Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Durn	Duration is not in the specified format.
TC ₁₄		Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid title	Course title is not in the specified format.
TC ₁₅		Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Price	Price is not in the specified format.
TC ₁₆		Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	n/a	n/a	Invalid teacher name	Teacher name is not in the specified format.
TC ₁₇		Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	n/a	n/a	Invalid language	Language is not in the specified format.
TC ₁₈	Scenario 7- Update a course alternative flow: Course not found	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course not found	Course with the specified code does not exist in the database.
TC ₁₉	Scenario 8- Update cancelled	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	No	n/a	Main screen of course appears	
TC ₂₀	Scenario 9- Update a course alternative flow: User exits	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	User is allowed to exit and returns to the Main menu	
TC ₂₁	Scenario 10- Delete a course	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	Course is deleted successfully	

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Table 6.19 Test case matrix for the Maintain Course Details use case (*Contd.*)

Test case ID	Scenario and description	Input 1 Course ID	Input 2 Course Name	Input 3 Course Duration.	Input 4 Course Title.	Input 5 Course Price.	Input 6 Teacher	Input 7 Course Language	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
TC ₂₂	Scenario 11-Delete a course alternative flow: Course not found	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course not found	Course with the specified ID does not exist in the database.
TC ₂₃	Scenario 12-Delete a course alternative flow: Delete cancelled	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No	Main screen of course appears	User does not confirm the delete operation.
TC ₂₄	Scenario 13-Delete a course alternative flow: Deletion not allowed	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Deletion not allowed	Course is already issued.
TC ₂₅	Scenario 14-Delete a course alternative flow: User exits	Valid / invalid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	
TC ₂₆	Scenario 15-View a course	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course is displayed successfully	The course details are displayed.
TC ₂₇	Scenario 16-View a course alternative flow: Course not found	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Course not found	Course with the specified ID does not exist in the database.
TC ₂₈	Scenario 17-View a course alternative flow: User exits	Valid / invalid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	

Test case matrix for the Maintain Student Details use case

Test case ID	Scenario and description	Input 1 Student ID	Input 2 Student Name	Input 3 Student Mail	Input 4 Student Ph no	Input 5 Student GRADE	Input 6 Alt mail	Input 7 Student Alt No	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
TC1	Scenario 1-Add a student	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	n/a	n/a	Student added Successfully	–
TC2	Scenario 2-Add a student alternative flow: Invalid entry	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid student ID	Student ID is not in the specified format. Student name becomes 'do not care'.
TC3		Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Student Name	Student Name is not in the specified format.
TC4		Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid MAIL	MAIL is not in the specified format.
TC5		Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Ph no	Student Ph no is in the specified format.
TC6		Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid GRADE	GRADE is not in the specified format.
TC7		Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	n/a	n/a	Invalid Alt name	Alt Mail name is not in the specified format.
TC ₈		Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	n/a	n/a	Invalid Alt No	Alt No is not in the specified format.
TC ₉	Scenario 3-Add a student alternative flow: Student ID already exists	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	n/a	n/a	Student ID already exists	The student with the same ID is already present in the database.
TC10	Scenario 4-Add a student alternative flow: User exits	Valid/invalid input	Valid /invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	User is allowed to exit and returns to the Main menu	

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Test case matrix for the Maintain Student Details use case (Contd.)

Test case ID	Scenario and description	Input 1	Input 2	Input 3	Input 4	Input 5	Input 6	Input 7	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
		Student ID	Student Name	Student Mail	Student Ph No	Student Grade	Alt mail	Student Alt no				
TC ₁₁	Scenario 5- Update a Student	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Yes	n/a	Student is updated successfully	-
TC ₁₂	Scenario 6- Update a Student alternative flow: Invalid entry	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Student name	Student Name is not in the specified format.
TC ₁₃		Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Durn	Mail is not in the specified format.
TC ₁₄		Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Ph No	Student Ph No is not in the specified format.
TC ₁₅		Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	Invalid Grade	Grade is not in the specified format.
TC ₁₆		Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	Valid/invalid input	n/a	n/a	Invalid Alt name	Alt mail name is not in the specified format.
TC ₁₇		Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Invalid input	n/a	n/a	Invalid Alt no	Alt no is not in the specified format.
TC ₁₈	Scenario 7- Update a Student alternative flow: Student not found	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student not found	Student with the specified code does not exist in the database.
TC ₁₉	Scenario 8- Update cancelled	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	Valid input	No	n/a	Main screen of Student appears	
TC ₂₀	Scenario 9- Update a Student alternative flow: User exits	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	Valid/invalid input	n/a	n/a	User is allowed to exit and returns to the Main menu	
TC ₂₁	Scenario 10- Delete a Student	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	Student is deleted successfully	

(Contd.)

Table 6.19 Test case matrix for the Maintain Student Details use case (*Contd.*)

Test case ID	Scenario and description	Input 1 Student ID	Input 2 Student Name	Input 3 Student Mail.	Input 4 Ph No.	Input 5 Student Grade.	Input 6 Alt mail	Input 7 Student Alt no	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
TC ₂₂	Scenario 11-Delete a Student alternative flow: Student not found	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student not found	Student with the specified ID does not exist in the database.
TC ₂₃	Scenario 12-Delete a Student alternative flow: Delete cancelled	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No	Main screen of Student appears	User does not confirm the delete operation.
TC ₂₄	Scenario 13-Delete a Student alternative flow: Deletion not allowed	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Deletion not allowed	Student is already issued.
TC ₂₅	Scenario 14-Delete a Student alternative flow: User exits	Valid / invalid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	
TC ₂₆	Scenario 15-View a Student	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student is displayed successfully	The Student details are displayed.
TC ₂₇	Scenario 16-View a Student flow: Student not found	Valid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Student not found	Student with the specified ID does not exist in the database.
TC ₂₈	Scenario 17-View a Student flow: User exits	Valid / invalid input	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	User is allowed to exit and returns to the Main menu	

Test Case matrix for Sign up

Test Case	Scenario Name & Description	Input 1 (Name)	Input 2 (Phone)	Input 3 (Email)	Input 4 (Password)	Input 5 (Confirm Password)	Expected Output	Remarks
TC01	Basic Flow: Successful signup	Valid input	Valid input	Valid Input	Valid Input	Valid Input	User should be able to register successfully	Valid input data
TC02	Alternate Flow: Invalid name	Invalid Input	Valid Input	Valid Input	Valid input	Valid input	User should not be able to register and should see an error message indicating that the name field does not accept special characters or numbers	-
TC03	Alternate Flow: Weak password	Valid Input	Valid Input	Valid Input	Invalid Input	Invalid Input	User should not be able to register and should see an error message indicating that the password should be at least 8 characters long and contain at least one uppercase letter, one lowercase letter, one number, and one special character	-
TC04	Alternate Flow: Passwords don't match	Valid Input	Valid Input	Valid Input	Valid Input	Invalid Input	User should not be able to register and should see an error message indicating that the password and confirm password fields should match	-

Test Case matrix for Sign up

Test Case	Scenario Name & Description	Input 1 (Name)	Input 2 (Phone)	Input 3 (Email)	Input 4 (Password)	Input 5 (Confirm Password)	Expected Output	Remarks
TC005	Alternate Flow: Existing user	Valid Input	Valid Input	Invalid Input	Valid Input	Valid Input	User should not be able to register and should see an error message indicating that a user with the same email already exists	-
TC06	Alternate Flow: Invalid phone number	Valid Input	Invalid Input	Valid Input	Valid Input	Valid Input	User should not be able to register and should see an error message indicating that the phone number should be at least 10 digits long	-
TC07	Alternate Flow: Invalid email	Valid Input	Valid Input	Invalid Input	Valid Input	Valid Input	User should not be able to register and should see an error message indicating that the email address is invalid	-
TC08	Alternate Flow: Missing required field	Valid Input	Valid Input	Invalid Input	Valid Input	Valid Input	User should not be able to register and should see an error message indicating that the email field is required	-
TC09	Alternate Flow: Missing optional field	Valid Input	Valid Input	Valid Input	Valid Input	Valid Input	User should be able to register successfully even if the location field is left empty	

Test case matrix with actual data values for the login use case

Test case ID	Scenario name and description	Login ID	Password	Old password	New password	Confirm password	Expected output	Remarks (if any)
TC ₁	Scenario 1-Login	01164521657	Abc123	n/a	n/a	n/a	User is allowed to login	
TC ₂	Scenario 2-Login alternative flow: Invalid entry	1234	Abc123	n/a	n/a	n/a	Login ID invalid	Login ID is not in specified format which is less than 11 characters.
TC ₃	Scenario 2-Login alternative flow: Invalid entry	01164521658	Abc123	n/a	n/a	n/a	Login ID invalid	Login ID does not exist in database.
TC ₄	Scenario 2-Login alternative flow: Invalid entry	01164521657	R34	n/a	n/a	n/a	Password invalid	Password is not in specified format which is less than 4 characters.
TC ₅	Scenario 2-Login alternative flow: Invalid entry	01164521657	Abc124	n/a	n/a	n/a	Login ID invalid	Password does not exist in database.
TC ₆	Scenario 2-Login alternative flow: Invalid entry	1234	R34	n/a	n/a	n/a	Login ID/password invalid	Login ID and password are not in the specified format. Login ID is less than 11 characters and password is less than 4 characters.
TC ₇	Scenario 3-Login alternative flow: User exits	*	*	n/a	n/a	n/a	User comes out of the system	
TC ₈	Scenario 4-Change password	01164521657	n/a	Abc123	Abc124	Abc124	User is allowed to change password	
TC ₉	Scenario 5-Change password alternative flow: Invalid entry	01165	n/a	*	*	*	Login ID is invalid	Login ID is not in the specified format.
TC ₁₀	Scenario 5-Change password alternative flow: Invalid entry	01164521657	n/a	Abc1	*	*	Old password invalid	Old password does not match the corresponding password in the database. Other entries (new password and confirm password) become 'do not care'.
TC ₁₁	Scenario 5-Change password alternative flow: Invalid entry	01164521657	n/a	Abc123	R12	*	New password invalid	New password is not in the specified format which is less than 4 characters. Other entries (confirm password) become 'do not care'.
TC ₁₂	Scenario 5-Change password alternative flow: Invalid entry	01164521657	n/a	Abc123	Abc124	Abc125	Confirm password does not match new password	
TC ₁₃	Scenario 6-Change password alternative flow: User exits	*	n/a	*	*	*	User is allowed to exit and returns to login screen	

*: do not care conditions (valid/invalid inputs); n/a: option(s) not available for respective scenario

Test case matrix for the Maintain Course Details use case

Test case ID	Scenario and description	Input 1 Course ID	Input 2 Course Name	Input 3 Course Duration	Input 4 Course Title	Input 5 Course Price	Input 6 Teacher	Input 7 Course Language	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
TC1	Scenario 1-Add a course	9650A	CPP	50 Days	Basics CPP	Rs300	Love	Hinglish	n/a	n/a	Course added Successfully	–
TC2	Scenario 2-Add a course alternative flow: Invalid entry	00xa0	*	*	*	*	*	*	n/a	n/a	Invalid course ID	Course ID is not in the specified format. Course name becomes 'do not care'.
TC3		9650A	000	*	*	*	*	*	n/a	n/a	Invalid Course Name	Course Name is not in the specified format.
TC4		9650A	CPP	dfgs	*	*	*	*	n/a	n/a	Invalid Duration	DURATION is not specified format.
TC5		9650A	CPP	50 days	345ss	*	*	*	n/a	n/a	Invalid title	Course title is not in the specified format.
TC6		9650A	CPP	50 days	Basics CPP Basics	Sfvc	*	*	n/a	n/a	Invalid Price	Price is not in the specified format.
TC7		9650A	CPP	50 days	CPP Basics CPP	Rs300	78248	*	n/a	n/a	Invalid teacher name	Teacher name is not in the specified format.
TC ₈		9650A	CPP	50 days	Basics CPP Basics	Rs300 Rs300	Love	34fdf	n/a	n/a	Invalid language	Language is not in the specified format.
TC ₉	Scenario 3-Add a course alternative flow: Course ID already exists	9650A	CPP	50 days	CPP	Rs300	Love	hindi	n/a	n/a	Course ID already exists	The course with the same ID is already present in the database.
TC10	Scenario 4-Add a course alternative flow: User exits	*	*	*	*	*	*	*	n/a	n/a	User is allowed to exit and returns to the Main menu	

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Test case matrix for the Maintain Student Details use case

Test case ID	Scenario and description	Input 1 Student ID	Input 2 Student Name	Input 3 Student Mail	Input 4 Student PH no	Input 5 Student Grade	Input 6 Alt mail	Input 7 Student Alt ph no	Update confirmed	Deletion confirmed	Expected result	Remarks (if any)
TC1	Scenario 1-Add a Student	9650A	ANSHU	t1@mail.com	123456	Xii	T2@m	12344443	n/a	n/a	Student added Successfully	–
TC2	Scenario 2-Add a Student flow: Invalid entry	00xa0	*	*	*	*	*	*	n/a	n/a	Invalid Student ID	Student ID is not in the specified format. Student name becomes 'do not care'.
TC3		9650A	000	*	*	*	*	*	n/a	n/a	Invalid Student Name	Student Name is not in the specified format.
TC4		9650A	ANSHU	dfgs	*	*	*	*	n/a	n/a	Invalid MAIL Mail	MAIL is not in the specified format.
TC5		9650A	ANSHU	t1@mail.com	345ss	*	*	*	n/a	n/a	Invalid PH no	Student PH no is in the specified format.
TC6		9650A	ANSHU	t1@mail.com	123456	Sfvc	*	*	n/a	n/a	Invalid Grade	Grade is not in the specified format.
TC7		9650A	ANSHU	t1@mail.com	123456	Xii	78248	*	n/a	n/a	Invalid Alt name	Alt mail name is not in the specified format.
TC ₈		9650A	ANSHU	t1@mail.com	123456	Xii Xii	T2@m	34fdf	n/a	n/a	Invalid Alt ph no	Alt ph no is not in the specified format.
TC ₉	Scenario 3Add a Student flow: Student ID already exists	9650A	ANSHU	t1@mail.com	123456	Xii	T2@m	122324	n/a	n/a	Student ID already exists	The Student with the same ID is already present in the database.
TC10	Scenario 4Add a Student flow: User exits	*	*	*	*	*	*	*	n/a	n/a	User is allowed to exit and returns to the Main menu	

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Test Case Matrix with actual values for sign up

Test Case ID	Scenario Name & Description	Name	Phone	Email	Password	Confirm Password	Expected Output	Remarks
TC001	Basic Flow: Successful signup	Anshul	1234567890	Seanshul21@gmail.com	Password@123	Password@123	User should be able to register successfully	Valid input data
TC002	Alternate Flow: Invalid name	Anshu@L	1234567890	Seanshul21@gmail.com	Password@123	Password@123	User should not be able to register and should see an error message indicating that the name field does not accept special characters or numbers	-
TC003	Alternate Flow: Weak password	Anshul	1234567890	Seanshul21@gmail.com	pass123	pass123	User should not be able to register and should see an error message indicating that the password should be at least 8 characters long and contain at least one uppercase letter, one lowercase letter, one number, and one special character	-
TC004	Alternate Flow: Passwords don't match	Anshul	1234567890	Seanshul21@gmail.com	Password@123	Password@456	User should not be able to register and should see an error message indicating that the password and confirm password fields should match	-
TC005	Alternate Flow: Existing user	Anshul	1234567890	Seanshul21@gmail.com	Password@123	Password@123	User should not be able to register and should see an error message indicating that a user with the same name & email already exists	-
TC006	Alternate Flow: Invalid	Anshul	12345678	Seanshul21@gmail.com	Password@123	Password@123	User should not be able to register and should see an error message indicating that the phone number	-

Test Case Matrix with actual values for sign up

Test Case ID	Scenario Name & Description	Name	Phone	Email	Password	Confirm Password	Expected Output	Remarks
	phone number						should be at least 10 digits long	
TC007	Alternate Flow: Invalid email	Anshul	1234567890	Seanshul21@gl.com	Password@123	Password@123	User should not be able to register and should see an error message indicating that the email address is invalid	-
TC008	Alternate Flow: Missing required field	Anshul	1234567890	-	Password@123	Password@123	User should not be able to register and should see an error message indicating that the email field is required	-
TC009	Alternate Flow: Terms of use not accepted	Anshul	1234567890	Seanshul21@gmail.com	Password@123	Password@123	User should not be able to register and should see an error message indicating that the terms of use must be accepted	-
TC010	Alternate Flow: Cancel registration	Anshul	1234567890	Seanshul21@gmail.com	Password@123	Password@123	User should be able to cancel the registration process and return to the home page	
TC011	Alternate Flow: Reset registration form	Anshul	1234567890	Seanshul21@gmail.com	Password@123	Password@123		