

Black Box Testing

□ Student Side:

1. Student Registration:

Username	Email	Password	Output
Null	Null	Null	Please fill out the field
username : Vidhan	Null	Null	Please fill out the field
Null	Correct Email: 202201133@daiic.ac.in	Null	Please fill out the field
Null	Null	Vidhan@123	Please fill out the field
username : Vidhan	Correct Email: 202201133@daiict.ac.in	Vidhan@123	Registration successful! Please log in.
username : Vidhan	Incorrect Email : 202201133.daiict.ac.in	Vidhan@123	Please include '@' in the email address . '202201133.daiict.ac.in' is missing '@'

2. Student Login:

a. Email

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid email	john.doe@example.com	Email is accepted
TC2	Enter an invalid email (no @)	johndoe.com	Error: "Invalid email format"

TC3	Leave the email field empty	(Empty)	Error: "Email is required"
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b. Password

Test Case ID	Test Description	Test Input	Expected Result
TC4	Enter a valid password	Password@123	Password is accepted
TC5	Enter a short password (<6 chars)	123	Error: "Password too short"
TC6	Leave the password field empty	(Empty)	Error: "Password is required"

c. User Type (Radio Buttons: Student/Admin)

Test Case ID	Test Description	Test Input	Expected Result
TC7	Select "Student" option	Select "Student"	"Student" is selected
TC8	Select "Admin" option	Select "Admin"	"Admin" is selected
TC9	Leave user type unselected	No selection	Error: "Please select a user type"

d. Captcha

Test Case ID	Test Description	Test Input	Expected Result
TC10	Enter the correct captcha	4338	Captcha is accepted
TC11	Enter an incorrect captcha	1234	Error: "Captcha does not match"
TC12	Leave the captcha field empty	(Empty)	Error: "Captcha is required"

e. Login Button

Test Case ID	Test Description	Test Input	Expected Result
TC13	Click "Login" with all fields valid	Valid email, password, user type, and captcha	User is logged in successfully
TC14	Click "Login" with missing email	(Empty), valid password, user type, and captcha	Error: "Email is required"
TC15	Click "Login" with invalid captcha	Valid email, password, and user type, incorrect captcha	Error: "Captcha does not match"

3. Student Profile:

1. First Name Field :

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid first name	Vidhan	Field accepts the input
TC2	Enter numbers/special characters	Vidhan@1	Error: "Invalid characters in First Name"
TC3	Leave blank	(blank)	Error: "First Name is required"

2. Middle Name Field :

Test Case ID	Test Description	Test Input	Expected Result
TC4	Enter a valid middle name	Random	Field accepts the input
TC5	Enter special characters	@!#	Error: "Invalid characters in Middle Name"

3. Last Name Field :

Test Case ID	Test Description	Test Input	Expected Result
TC6	Enter a valid last name	Doe	Field accepts the input

TC7	Leave blank	(blank)	Error: "Last Name is required"
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4. Date of Birth Field :

Test Case ID	Test Description	Test Input	Expected Result
TC8	Enter a valid date in dd-mm-yyyy format	01-12-2000	Field accepts the input
TC9	Enter an invalid date format	2000-12-01	Error: "Invalid date format"

5. Gender Field :

Test Case ID	Test Description	Test Input	Expected Result
TC10	Select a valid gender	Male/Female/Other	Field accepts the input
TC11	Leave unselected	(blank)	Error: "Gender is required"

6. Category Field :

Test Case ID	Test Description	Test Input	Expected Result
TC12	Enter a valid category	General/OB C	Field accepts the input

TC13	Leave blank	(blank)	Error: "Category is required"
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7. Mobile Number Field :

Test Case ID	Test Description	Test Input	Expected Result
TC14	Enter a valid mobile number	9876543210	Field accepts the input
TC15	Enter non-numeric values	abc123	Error: "Invalid mobile number"
TC16	Leave blank	(blank)	Error: "Mobile Number is required"

8. Parent's Full Name Field :

Test Case ID	Test Description	Test Input	Expected Result
TC17	Enter a valid name	Jane Doe	Field accepts the input
TC18	Enter special characters	@Doe	Error: "Invalid characters in Parent's Name"

9. Parent's Mobile Number Field :

Test Case ID	Test Description	Test Input	Expected Result
TC19	Enter a valid mobile number	9988776655	Field accepts the input
TC20	Leave blank	(blank)	Error: "Parent's Mobile Number is required"

10. Occupation Field :

Test Case ID	Test Description	Test Input	Expected Result
TC21	Enter a valid occupation	Teacher	Field accepts the input
TC22	Leave blank	(blank)	Depends on field rules (Optional/Error)

11. Income Field :

Test Case ID	Test Description	Test Input	Expected Result
TC23	Enter a valid numeric income	50000	Field accepts numeric input
TC24	Enter letters or symbols	abc!	Error: "Income should be a number"

12. Email Field :

Test Case ID	Test Description	Test Input	Expected Result
TC25	Validate pre-filled email	Pre-filled	Email is read-only and displays correctly

13. Village/Area/Locality Field :

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid village name	Greenfield	Field accepts the input.
TC2	Enter numbers/special characters	123@#Village	Error: "Invalid characters in Village Name."
TC3	Leave blank	(blank)	Error: "Village Name is required."
TC4	Enter excessively long input	A string >100 chars	Error: "Input exceeds maximum length."

14. Block/Taluka/Sub-district/Town Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid block name	Downtown	Field accepts the input.

TC2	Enter numbers/special characters	Block@123	Error: "Invalid characters in Block Name."
TC3	Leave blank	(blank)	Error: "Block Name is required."
TC4	Enter excessively long input	A string >100 chars	Error: "Input exceeds maximum length."

15. State Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Select a valid state	Karnataka	Field accepts the input.
TC2	Leave blank or unselect state	(blank)	Error: "State is required."
TC3	Select mismatched state for PIN	Kerala with PIN 560001	Error: "State does not match the provided PIN."

16. PIN Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid PIN	560001	Field accepts the input.
TC2	Enter fewer than 6 digits	1234	Error: "PIN must be 6 numeric digits."
TC3	Enter alphanumeric characters	123A56	Error: "PIN must only contain numeric digits."

TC4	Leave blank	(blank)	Error: "PIN is required."
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17. Upload Aadhaar (PDF)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Upload a valid PDF	valid.pdf	File is accepted successfully.
TC2	Upload a non-PDF file	invalid.jpg	Error: "Only PDF files are allowed."
TC3	Upload a file exceeding size limit	oversized.pdf	Error: "File size exceeds the allowed limit."
TC4	Leave blank	(blank)	Error: "Aadhaar PDF is required."

18. Savings Bank Account Number

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid account number	1234567890	Field accepts the input.
TC2	Enter alphabets or special characters	ABCD123@!	Error: "Account number must be numeric."
TC3	Enter fewer digits than required	12345	Error: "Invalid account number length."

TC4	Leave blank	(blank)	Error: "Account number is required."
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19. IFSC Code

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid IFSC code	SBIN0001234	Field accepts the input.
TC2	Enter fewer than 11 characters	ABC123	Error: "IFSC code must be 11 characters long."
TC3	Enter invalid characters	SBIN@!1234	Error: "Invalid IFSC code format."
TC4	Leave blank	(blank)	Error: "IFSC code is required."

20. Bank Name

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid bank name	State Bank of India	Field accepts the input.
TC2	Enter invalid characters/numbers	SBI123@	Error: "Invalid input. Bank name must contain letters only."
TC3	Leave blank	(blank)	Error: "Bank Name is required."

21. Bank Branch

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid branch name	Main Branch	Field accepts the input.
TC2	Enter invalid characters	Branch@123	Error: "Invalid branch name."
TC3	Leave blank	(blank)	Error: "Bank Branch is required."

22. Upload Passbook (PDF)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Upload a valid PDF	passbook.pdf	File is accepted successfully.
TC2	Upload a non-PDF file	passbook.jpg	Error: "Only PDF files are allowed."
TC3	Upload a file exceeding size limit	oversized_passbook.pdf	Error: "File size exceeds the allowed limit."
TC4	Leave blank	(blank)	Error: "Passbook PDF is required."

23. Course Level Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Select a valid course level	Undergraduate	Field accepts the input.
TC2	Leave blank and submit	(blank)	Error: "Course Level is required."

24. Course Name Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Select a valid course name	B.Sc. Computer Science	Field accepts the input.
TC2	Leave blank and submit	(blank)	Error: "Course Name is required."

25. Tuition Fees Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid tuition fee amount	50000	Field accepts the input.
TC2	Enter non-numeric characters	Fifty Thousand	Error: "Fees must be numeric."

TC3	Leave blank	(blank)	Error: "Tuition Fees are required."
TC4	Enter a negative amount	-50000	Error: "Fees must be a positive value."

26. Non-Tuition Fees Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid non-tuition fee amount	10000	Field accepts the input.
TC2	Enter non-numeric characters	Ten Thousand	Error: "Fees must be numeric."
TC3	Leave blank	(blank)	Error: "Non-Tuition Fees are required."
TC4	Enter a negative amount	-10000	Error: "Fees must be a positive value."

27. Total Current Fees Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Verify auto-calculation of total fees	Tuition: 50000, Non-Tuition: 10000	Total = 60000 displayed automatically.

28. Upload Tuition Fee Receipt (PDF)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Upload a valid PDF file	tuition_fee.pdf	File is accepted successfully.
TC2	Upload a non-PDF file	tuition_fee.jpg	Error: "Only PDF files are allowed."
TC3	Upload a file exceeding size limit	large_file.pdf	Error: "File size exceeds the allowed limit."
TC4	Leave blank	(blank)	Error: "Tuition Fee Receipt is required."

29. Upload Non-Tuition Fee Receipt (PDF)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Upload a valid PDF file	non_tuition_fee.pdf	File is accepted successfully.
TC2	Upload a non-PDF file	non_tuition_fee.png	Error: "Only PDF files are allowed."
TC3	Upload a file exceeding size limit	large_file.pdf	Error: "File size exceeds the allowed limit."
TC4	Leave blank	(blank)	Error: "Non-Tuition Fee Receipt is required."

30. Name of Institute Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid institute name	ABC University	Field accepts the input.
TC2	Enter special characters	@123Institute	Error: "Invalid characters in Institute Name."
TC3	Leave blank	(blank)	Error: "Institute Name is required."

31. Month and Year of Passing Field

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid month and year	January 2020	Field accepts the input.
TC2	Enter a future date	December 2025	Error: "Passing date cannot be in the future."
TC3	Leave blank	(blank)	Error: "Passing date is required."

32. Total Marks Obtained (Class 10)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid number of marks	450	Field accepts the input.
TC2	Enter non-numeric characters	Four Hundred	Error: "Marks must be numeric."
TC3	Enter a negative value	-100	Error: "Marks must be a positive value."
TC4	Leave blank	(blank)	Error: "Total Marks Obtained is required."

33. Out of Total Marks (Class 10)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid total number of marks	500	Field accepts the input.
TC2	Enter non-numeric characters	Five Hundred	Error: "Marks must be numeric."
TC3	Enter a negative value	-500	Error: "Marks must be a positive value."

TC4	Leave blank	(blank)	Error: "Total Marks is required."
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34. Percentage (Class 10)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Verify auto-calculation	Obtained: 450, Total: 500	Field auto-calculates: "90%."
TC2	Verify error for incorrect marks input	Obtained: 550, Total: 500	Error: "Obtained Marks cannot exceed Total Marks."

35. Upload Class 10 Mark Sheet (PDF)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Upload a valid PDF file	class10_marks.pdf	File is accepted successfully.
TC2	Upload a non-PDF file	class10_marks.png	Error: "Only PDF files are allowed."
TC3	Upload a file exceeding size limit	large_file.pdf	Error: "File size exceeds the allowed limit."
TC4	Leave blank	(blank)	Error: "Class 10 Mark Sheet is required."

36. Name of Institute (Class 12)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid institute name	XYZ School	Field accepts the input.
TC2	Enter special characters	@XYZ School	Error: "Invalid characters in Institute Name."
TC3	Leave blank	(blank)	Error: "Institute Name is required."

37. Month and Year of Passing (Class 12)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid date	March 2020	Field accepts the input.
TC2	Enter a future date	December 2025	Error: "Passing date cannot be in the future."
TC3	Leave blank	(blank)	Error: "Passing date is required."

38. Total Marks Obtained (Class 12)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid number of marks	460	Field accepts the input.

TC2	Enter non-numeric characters	Four Hundred Sixty	Error: "Marks must be numeric."
TC3	Enter a negative value	-460	Error: "Marks must be a positive value."
TC4	Leave blank	(blank)	Error: "Total Marks Obtained is required."

39. Out of Total Marks (Class 12)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid total number of marks	500	Field accepts the input.
TC2	Enter non-numeric characters	Five Hundred	Error: "Marks must be numeric."
TC3	Enter a negative value	-500	Error: "Marks must be a positive value."
TC4	Leave blank	(blank)	Error: "Total Marks is required."

40. Percentage (Class 12)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Verify auto-calculation	Obtained: 460, Total: 500	Field auto-calculates: "92%."

TC2	Verify error for incorrect marks input	Obtained: 510, Total: 500	Error: "Obtained Marks cannot exceed Total Marks."
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41. Upload Class 12 Mark Sheet (PDF)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Upload a valid PDF file	class12_marks.pdf	File is accepted successfully.
TC2	Upload a non-PDF file	class12_marks.jpg	Error: "Only PDF files are allowed."
TC3	Upload a file exceeding size limit	large_file.pdf	Error: "File size exceeds the allowed limit."
TC4	Leave blank	(blank)	Error: "Class 12 Mark Sheet is required."

42. Name of Institute

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid institute name	"ABC University"	The input is accepted successfully.
TC2	Leave the field blank	(blank)	Error: "This field is required."
TC3	Enter special characters	"!@#\$\$%^&"	Error: "Invalid input."

TC4	Enter excessively long input	"UniversityName..." (255 chars)	Accepted if within limit, else error: "Input too long."
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43. Program/Course Name

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid course name	"Bachelor of Science"	The input is accepted successfully.
TC2	Leave the field blank	(blank)	Error: "This field is required."
TC3	Enter special characters	"!@#\$\$%^&*"	Error: "Invalid input."

44. Year of Enrollment

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid enrollment year	"2022"	The input is accepted successfully.
TC2	Enter a future year	"2026"	Error: "Year must not be in the future."

TC3	Enter letters or special characters	"abcd" / "!@#%"	Error: "Invalid year."
TC4	Leave the field blank	(blank)	Error: "This field is required."

45. Expected Year of Graduation

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid graduation year	"2025"	The input is accepted successfully.
TC2	Enter a past year	"2010"	Error: "Year must not be in the past."
TC3	Enter letters or special characters	"abcd" / "!@#%"	Error: "Invalid year."
TC4	Leave the field blank	(blank)	Error: "This field is required."

46. Total Marks Obtained

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid number	"850"	The input is accepted successfully.
TC2	Enter non-numeric characters	"abc"	Error: "Invalid input. Please enter a numeric value."

TC3	Enter a negative number	"-50"	Error: "Marks cannot be negative."
TC4	Leave the field blank	(blank)	Error: "This field is required."

47. Out of Total Marks

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid number	"1000"	The input is accepted successfully.
TC2	Enter zero	"0"	Error: "Marks must be greater than zero."
TC3	Leave the field blank	(blank)	Error: "This field is required."

48. Percentage (Auto-Calculated)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter valid marks obtained and total	"850 / 1000"	Percentage auto-calculated and displayed as "85%".
TC2	Enter zero as total marks	"850 / 0"	Error: "Total marks cannot be zero."
TC3	Leave marks obtained or total blank	(blank)	Error: "Both fields are required for percentage calculation."

49. Upload Current Semester Mark Sheet

Test Case ID	Test Description	Test Input	Expected Result
TC1	Upload a valid PDF file	"marksheet.pdf"	File is accepted successfully.
TC2	Upload a non-PDF file	"marksheet.docx"	Error: "Only PDF files are allowed."
TC3	Upload a file exceeding size limit	"large_file.pdf"	Error: "File size exceeds the allowed limit."
TC4	Leave blank	(blank)	Error: "Current semester mark sheet is required."

☐ Admin Side:

1. Add Scholarship :

a. Scholarship Name

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid scholarship name	"National Merit"	The input is accepted successfully.
TC2	Leave the field blank	(blank)	Error: "Please fill out this field."
TC3	Enter special characters	"!@#\$\$%^&*"	Error: "Invalid input."
TC4	Enter excessively long text	255 characters	Accepted if within limit, else error: "Too long."

b. Amount

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid amount	"5000"	The input is accepted successfully.
TC2	Enter a negative amount	"-5000"	Error: "Amount cannot be negative."
TC3	Enter non-numeric characters	"Five thousand"	Error: "Invalid input. Please enter a number."

TC4	Leave the field blank	(blank)	Error: "Please fill out this field."
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c. End Date

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid date	"01-12-2024"	The input is accepted successfully.
TC2	Enter an invalid date format	"12/01/2024"	Error: "Please enter a valid date in dd-mm-yyyy."
TC3	Enter a past date	"01-12-2020"	Error: "End date cannot be in the past."
TC4	Leave the field blank	(blank)	Error: "Please fill out this field."

d. Description

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid description	"This is a scholarship."	The input is accepted successfully.
TC2	Leave the field blank	(blank)	No error (optional field).
TC3	Enter special characters	"!@#\$\$%^&*"	Accepted as valid input.

e. Education Level

Test Case ID	Test Description	Test Input	Expected Result
TC1	Select a valid option	"Undergraduate"	The selection is accepted successfully.
TC2	Leave the field unselected	(blank)	Error: "Please select an education level."

f. Select Eligible Courses

Test Case ID	Test Description	Test Input	Expected Result
TC1	Select a valid course	"B.Sc. Computer Science"	The selection is accepted successfully.
TC2	Leave the field unselected	(blank)	Error: "Please select an eligible course."

g. Minimum Percentage (CPI)

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid percentage	"75"	The input is accepted successfully.
TC2	Enter a negative percentage	"-10"	Error: "Percentage cannot be negative."

TC3	Enter a percentage above 100	"120"	Error: "Percentage cannot exceed 100."
TC4	Enter non-numeric characters	"eighty"	Error: "Invalid input. Please enter a number."

h. Annual Family Income

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid income	"300000"	The input is accepted successfully.
TC2	Enter a negative income	"-50000"	Error: "Income cannot be negative."
TC3	Enter non-numeric characters	"Three Lakhs"	Error: "Invalid input. Please enter a number."
TC4	Leave the field blank	(blank)	Error: "Please fill out this field."

i. Benefits

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid description	"Covers tuition fees."	The input is accepted successfully.

TC2	Leave the field blank	(blank)	No error (optional field).
TC3	Enter special characters	"!@#\$\$%^&*"	Accepted as valid input.

j. Note

Test Case ID	Test Description	Test Input	Expected Result
TC1	Enter a valid note	"This is a valid note."	The input is accepted successfully.
TC2	Leave the field blank	(blank)	No error (optional field).
TC3	Enter a long text	500 characters	Accepted if within the limit, otherwise shows error: "Input exceeds maximum allowed length."
TC4	Enter special characters	"!@#\$\$%^&*()"	Accepted as valid input.
TC5	Enter only spaces	" "	Error: "Input cannot be empty or only spaces."