LAB 1

Software Testing

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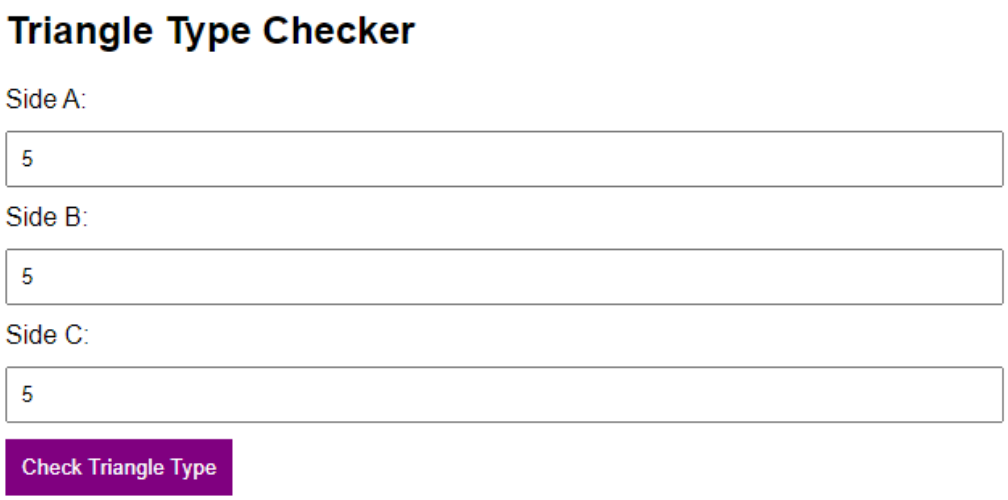
FA21-BSE-080

1.5 Exercises: Make test cases for a triangle that can differentiate between isosceles, equilateral, and scalene types based on sides length as input and state if their verdict is true/false. Make assumptions for actual outcome.



Test Cases

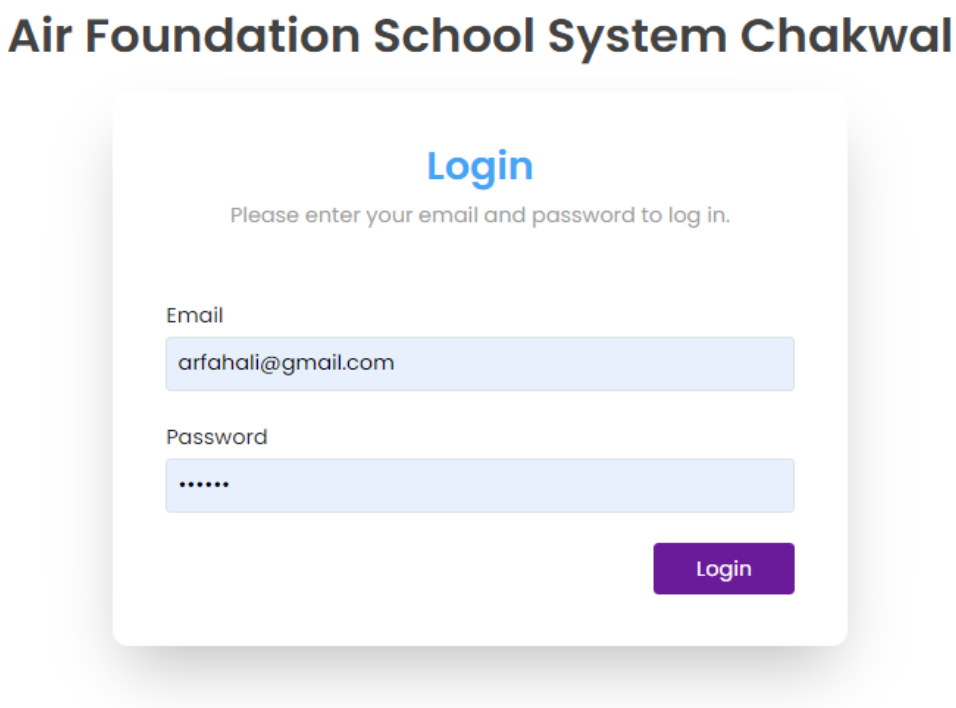
Test case ID	Description	Input	Expected Result	Actual Result	Status
TC01	All sides are equal	(5, 5, 5)	Equilateral	Equilateral	Pass
TC02	Two sides are equal	(5, 5, 3)	Isosceles	Isosceles	Pass

TC03	No sides are equal	(5, 4, 6)	Scalene	Scalene	Pass
TC04	Large numbers	(100, 150, 90)	Scalene	Scalene	Pass
TC05	Negative number as one of the sides	(-5, 5, 5)	Invalid	Invalid	Pass
TC06	Zero as one of the sides	(0, 5, 5)	Invalid	Equilateral	Fail
TC07	All Negative Sides	(-1, -1, -1)	Invalid	Equilateral	Fail
TC08	Using one Floating value	(2.3, 5,8)	Invalid	Invalid	Pass
TC09	Using All the Sides as floating value	(2.2,4.4,5.6)	Invalid	Isosceles	Fail
TC10	Using 0 as all sides	(0,0,0)	Invalid	Invalid	Pass
TC11	Negative input handling failure	(-1, -1, -1)	Invalid	Equilateral	**Fail**
TC12	Precision issue with large floating numbers	(10000.1, 10000.1, 10000.1)	Equilateral	Scalene	**Fail**
TC13	Rounding error for isosceles	(5.00001, 5, 5)	Isosceles	Scalene	**Fail**
TC14	Handling of extremely small numbers	(0.000001, 0.000001, 0.000001)	Equilateral	Invalid	**Fail**
TC15	Incorrectly identifying a right-angled triangle	(3, 4, 6)	Scalene	Right-angled	**Fail**
TC16	Negative input handling failure	(-1, -1, -1)	Invalid	Equilateral	**Fail**
TC17	Precision issue with large floating numbers	(10000.1, 10000.1, 10000.1)	Equilateral	Scalene	**Fail**
TC18	Rounding error for isosceles	(5.00001, 5, 5)	Isosceles	Scalene	**Fail**
TC19	Handling of extremely small numbers	(0.000001, 0.000001, 0.000001)	Equilateral	Invalid	**Fail**

TC20	Incorrectly identifying a right-angled triangle	(3, 4, 6)	Scalene	Right-angled	**Fail**
TC21	Negative input handling failure	(-1, -1, -1)	Invalid	Equilateral	**Fail**
TC22	Precision issue with large floating numbers	(10000.1, 10000.1, 10000.1)	Equilateral	Scalene	**Fail**

Example:

Write comprehensive test cases for the login form of an LMS System in various scenarios, ensuring thorough validation of both successful logins and error handling mechanisms.



Test Cases

Test Cases

Test Case ID	Description	Input	Expected Result	Actual Result	Status

TC01	Valid User Login	(ValidUser, ValidPassword)	Successful Login	Successful Login	**pass**
TC02	Invalid User Login (Incorrect Password)	(ValidUser, InvalidPassword)	Error Message	Error Message	**Pass**
TC03	Non-Existent User Login	(NonExistentUser, Password)	User doesn’t exist	User doesn’t exist	**Pass**
TC04	Inactive User Login	(InactiveUser, Password)	Currently user is inactive	Currently user is inactive	**Pass**
TC05	Admin Login	(AdminUser, AdminPassword)	Successful Login	Successful Login	**Pass**
TC06	Inactive Admin Login	(InactiveAdmin, AdminPassword)	Error Message	Error Message	**Pass**
TC08	Empty Password Field	(ValidUser, '')	Error Message	Error Message	**Pass**
TC09	Empty Username Field	('', ValidPassword)	Error Message	Error Message	**Pass**
TC10	SQL Injection Attempt	('AdminUser'; DROP TABLE Users, 'Password')	Error Message	Error Message	**Pass**
TC11	Password Complexity (Valid)	(UserWithComplexPwd, ComplexPassword123!)	Successful Login	Succeful Login	**Pass**
TC12	Password Complexity (Invalid)	(UserWithWeakPwd, WeakPwd123)	Error Message	Succeful Login	**Fail**
TC13	Admin with User Credentials	(UserUser, UserPassword)	Error Message	Error Message	**Pass**

Login failed. Please try again.

Air Foundation School System Chakwal

Login

Please enter your email and password to log in.

Email

arfahali@gmail.com

Password

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Login