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ISE Assignment 2

Test Cases for all features of the project

Project: Student Management System

Testing Approach:

- \* Before we start preparing test cases, we need to identify the requirements and features of the project.
- \* Based on the given requirement, we can categorize the features into different modules such as login authentication, attendance management, course registration, marks management, GPA calculation, fee structure, and warnings.
- \* To ensure maximum coverage, we will use various testing techniques such as Equivalence Class Partitioning, Boundary, value Analysis, and Error guessing. We also prioritize test cases based on the criticality of the features.

## 1. Login Authentication

ID	Pre-condition	Input	Expected Output	Actual Output	Pass/Fail
TCA-01	User navigates to login page	Valid username & password	Accept		
TCA-02	User navigates to login page	Invalid username ID <empty>	error		
TCA-03	User navigates to login page	ID length > 4	error		
TCA-04	User navigates to login page	ID length < 4	error		
TCA-05	User navigates to login page	ID "0-10"	error		
TCA-06	User navigates to login page	pw length > 4	error		
TCA-07	User navigates to login page	pw length < 4	error		
TCA-08	User navigates to login page	pw length = 4	accept		
TCA-09	User navigates to login page	pw in alphabets	accept		
TCA-10	User navigates to login page	pw in numbers	accept		



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## 2. Attendance Management

ID	Pre-condition	Input	Expected output	Actual output	Pass / Fail
TCA-11	User is logged in	enter correct select subject code	accept <del>pass</del>		
TCA-12	User is logged in	subject code > 6	error		
TCA-13	User is logged in	subject code < 6	error		
TCA-14	User is logged in	Subject code = 6	accept		
TCA-15	User is logged in	Subject code < empty >	error		
TCA-16	User is logged in	Subject code alphanumeric	accept		
TCA-17	User is logged in	subject code alphabet	error		
TCA-18	User is logged in	subject code numbers	error		
TCA-19	User is logged in	Subject code &*#x	error		
TCA-20	User is logged in	Subject code unregistered	error		

## 3. Course Registration and Viewing

ID	Pre-condition	Input	Expected output	Actual output	Pass / Fail
TCA-21	User logged in	name &*156	error		
TCA-22	User logged in	id abcd	error		
TCA-23	User logged in	course > 5	error		
TCA-24	User logged in	course code abcde	error		
TCA-25	User logged in	Course code 12345	error		
TCA-26	User logged in	valid name, id, num, code	accept		
TCA-27	User logged in	invalid id	error		
TCA-28	User logged in	valid name, invalid id	error		
TCA-29	User logged in	valid name, id, invalid course code	error		
TCA-30	User logged in	name < empty >	error		



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#### 4. Marks Management

ID	Pre-condition	Input	Expected output	Actual output	Pass / Fail
TCA-31	logged in	course code alphabet	error		
TCA-32	logged in	course <sup>valid</sup> code	accept		
TCA-343	Logged in	course code 12345	error		
TCA-34	Logged in	unregistered course code	error		
TCA-35	Logged in	course code empty	error		

#### 5. GPA Calculation

ID	Pre-condition	Input	Expected output	Actual output	Pass / Fail
TCA-36	logged in	no marks	error		
TCA-37	Logged in	invalid code	error		
TCA-38	Logged in	individual GPA	accept		
TCA-39	Logged in	cumulative GPA	accept		
TCA-40	logged in	cumulative GPA < 2	message		
TCA-41	logged in	individual GPA < 1	message		

#### 6. Fee Structures

ID	Pre-condition	Input	Expected output	Actual output	Pass / Fail
TCA-42	Logged in	no registered courses	error		
TCA-43	Logged in	valid courses	accept		
TCA-44	logged in	invalid semester	error		
TCA-45	logged in	valid semester	accept		