Test Case Document: Student-Teacher Appointment Booking System

Module 1: User Registration

TC-ST01 - Register with valid details

  Steps: Enter name, email, password and click Register

  Expected: User registered in Firebase Auth and student node

TC-ST02 - Register with empty fields

  Steps: Leave fields blank and click Register

  Expected: Show error or block submission

TC-ST03 - Register with invalid email

  Steps: Use 'abc@' as email

  Expected: Firebase error: invalid email

TC-ST04 - Register with short password

  Steps: Enter password < 6 characters

  Expected: Firebase error: weak password

Module 2: User Login

TC-ST05 - Login with valid credentials

  Steps: Enter valid email/password and click Login

  Expected: User logged in successfully

TC-ST06 - Login with wrong password

  Steps: Enter wrong password

  Expected: Firebase error shown

TC-ST07 - Login with unregistered email

  Steps: Enter unknown email

  Expected: Firebase error: user not found

TC-ST08 - Leave login fields empty

  Steps: Click Login without entering data

  Expected: Block login, show message

Module 3: Appointment Booking

TC-ST09 - Book valid appointment

  Steps: Login -> Fill form -> Click Book

  Expected: Appointment stored in Firebase with pending status

TC-ST10 - Book with empty fields

  Steps: Leave one or more fields empty

  Expected: Prevent booking, show validation

TC-ST11 - Booking without login

  Steps: Access booking tab directly

  Expected: Redirect or block access

TC-ST12 - Duplicate booking (same slot)

  Steps: Try booking same teacher/date/time

  Expected: Handle based on system logic

TC-ST13 - Store message with booking

  Steps: Enter message and book

  Expected: Message saved in Firebase

Module 4: Firebase Realtime Database Structure

TC-ST14 - Appointment stored under student

  Steps: Book and check Firebase

  Expected: Stored under student/appointments/{userId}

TC-ST15 - Correct teacherId in booking

  Steps: Book with a teacher

  Expected: teacherId matches selection

TC-ST16 - Message saved correctly

  Steps: Add message while booking

  Expected: Message present in appointment data

Module 5: UI/UX Behavior

TC-ST17 - Tab switching

  Steps: Click tabs on UI

  Expected: Correct section is displayed

TC-ST18 - Responsive layout

  Steps: Resize or use mobile view

  Expected: Layout adapts correctly