

**AMERICAN INTERNATIONAL UNIVERSITY BANGLADESH (AIUB)**  
**Faculty of Science and Technology (FST)**  
**Department of Computer Science (CS)**  
**Course: Web Technologies**

**Lab Task 01: Real-Time Username Availability Checker**

**Instruction:**

- 1. Complete the task**
- 2. After completion, push the code in the GitHub repository.**

**Scenario:**

A social media platform needs to check username availability in real-time during registration. Create an AJAX-powered system that checks username availability as users type, without page refresh.

**Steps:**

Build a username checker with:

- **Frontend (register.html):**
  - Registration form with username, email, password fields
  - Real-time validation as user types username
  - Display availability status with colored messages (green: available, red: taken)
  - Loading indicator while checking
  - Disable submit if username unavailable
- **Backend (check\_username.php):**
  - Array of existing usernames (at least 10)
  - Receive username via GET request
  - Check if username exists (case-insensitive)
  - Return JSON: {available: true/false, message: "..."}
- **AJAX Implementation:**
  - Use XMLHttpRequest (vanilla JavaScript)
  - Implement debouncing (300ms delay)
  - Only check if username length  $\geq 3$  characters
  - Handle readyState and status codes properly
- Style the page with CSS for better UX
- Display character count and minimum length requirement