

Student Mobile Application Requirements

Internship Management System

Industrial Liaison Office – Takoradi Technical University (TTU)

1. Introduction

1.1 Purpose

This document defines the functional and non-functional requirements for the **Student Mobile Application** of the Internship Management System for the Industrial Liaison Office of Takoradi Technical University (TTU).

The application will be developed using **React Native** and will serve as the official platform for students to register for internship (Assumption of Duty), manage their onboarding, and view assigned supervisors and zones.

1.2 Scope

The Student Mobile Application will enable TTU students to:

- Create and verify accounts using their university email
- Complete a one-time student profile onboarding
- Register for Assumption of Duty during internship periods
- Submit company and location details during internship registration
- View assigned supervisors and zones
- Track internship status through clear system feedback

2. System Overview

- Platform: Mobile (Android & iOS)

- Framework: React Native
- Users: TTU Students
- Backend Integration: REST API
- API Documentation:
<https://industrial-liason-api.onrender.com/docs>

3. Functional Requirements

3.1 Authentication and Account Management

3.1.1 Student Registration

Students shall be able to create an account using their TTU university email.

Required Fields:

```
{  
  "email": "student@ttu.edu.gh",  
  "password": "StrongPassword123!",  
  "firstName": "John",  
  "lastName": "Doe"  
}
```

Rules:

- Only valid TTU university emails are allowed.
- Password must meet security requirements defined by the backend.

3.1.2 OTP Verification

- Upon successful registration, the system shall send a **6-digit OTP** to the student's university email.
- Students must verify their account before they can log in.
- Unverified accounts shall be restricted from accessing the application.

3.1.3 Login

- Students shall log in using their registered email and password.
- Only verified accounts are allowed to log in.

3.1.4 Password Reset

- Students shall be able to reset their password if forgotten.
- Password reset instructions (OTP or link) shall be sent to the registered email.

4. Student Profile Creation and Onboarding

4.1 Profile Creation

- Profile creation is **mandatory** after first login.
- Profile creation is a **one-time process**.
- Students are required to enter accurate information.

Required Profile Fields:

```
{
  "indexNumber": "TTU/2024/001234",
  "faculty": "Faculty of Engineering",
  "department": "Computer Science",
  "programme": "BSc. Computer Science",
  "level": "300",
  "session": "Regular",
  "certificateType": "BACHELOR of TECHNOLOGY",
  "gender": "MALE",
  "dateOfBirth": "2000-01-15",
  "phoneNumber": "+233501234567"
}
```

4.2 Profile Update Rules

- Students **cannot edit profile details** after submission.
- The **only editable field** after onboarding is the **profile image**.
- Any correction to profile data must be handled by the **Industrial Liaison Office (Admin)**.
- The app shall display a confirmation warning before final profile submission.

5. Assumption of Duty (Internship Registration)

5.1 Registration Requirement

- Students shall register for an **ongoing internship period**.
- Registration for Assumption of Duty is **mandatory**.
- Failure to register may result in penalties determined by the Industrial Liaison Office.

5.2 Location Requirement

- Students must be **physically present at their workplace** during registration.
- The app shall collect **GPS coordinates** (longitude and latitude).
- Location permission is required to proceed.

5.3 Required Assumption of Duty Fields

```
{  
  "periodId": "550e8400-e29b-41d4-a716-446655440000",  
  "companyName": "Tech Solutions Ltd",  
  "companyPhone": "+233501234567",  
  "companyEmail": "info@techsolutions.com",  
  "companyAddress": "123 Main St, Accra",  
}
```

```
"companySupervisor": "John Doe",  
"supervisorPhone": "+233501234567",  
"companyCity": "Accra",  
"commencementDate": "2026-06-01T00:00:00Z",  
"longitude": -0.186964,  
"latitude": 5.603717  
}
```

5.4 Validation Rules

- Location permission must be granted.
- Submission shall be blocked if GPS coordinates are missing.
- Clear error messages shall be displayed for denied permissions or invalid input.

6. Supervisor and Zone Information

6.1 Assignment Visibility

- After Assumption of Duty registration, supervisors and zones are assigned asynchronously.
- Students shall be able to view:
 - Assigned supervisor details
 - Assigned zone information

6.2 Pending Assignment Handling

If a supervisor or zone has not yet been assigned:

- The system shall display a **user-friendly status page**.
- The app shall not show empty screens or technical errors.

Example Message:

“Your supervisor and zone are being assigned. Please check back later.”

7. User Experience (UX) Requirements

- Clean and guided onboarding flow
- Clear confirmation dialogs for irreversible actions
- Friendly empty states and error pages
- Clear internship status indicators:
 - Not Registered
 - Registered (Pending Assignment)
 - Assigned
- Mobile-first and intuitive UI design

8. Non-Functional Requirements

- Secure handling of authentication data
- Responsive performance on low to mid-range mobile devices
- Reliable GPS data capture
- Proper error handling and graceful failures
- Maintainable and scalable codebase