



**TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES - MANILA**

***Bachelor of Science in Information Technology***

***College of Computer Studies***

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**FINAL PROJECT REQUIREMENT**

**Mobile Computing**

**CIT 306 - IT32S3**

**Submitted by:**

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**Title:**

TrackForce Real-Time Employee Tracker

**Description:**

TrackForce is a comprehensive Android based mobile application designed to support managers and HR personnel in managing employee attendance, productivity, and field activity in real-time. It facilitates GPS-based clock-in/out, task assignment and tracking, and report generation all accessible via an intuitive and user-friendly interface. Ideal for both remote teams and on-site workers.

**Objectives:**

- Provide a real-time solution for monitoring employee presence and productivity.
- Enhance task transparency between managers and employees.
- Automate attendance and task reporting for easier HR operations.
- Empower employees with a clear view of responsibilities and working hours.

## **Features:**

### User Authentication

- Login/Signup (email/password)

### Clock In/Out System

- Timestamped attendance logging
- Automatic GPS location capture

### Location Tracking

- Periodic background location updates (Manager View)

### Reports

- View logs of attendance, tasks

## Tools and Technologies Used:

Language - Kotlin

IDE - Android Studio

UI Framework - Jetpack Compose or XML

Database - Firebase Firestore

Authentication - Firebase Auth

Cloud Functions - Firebase Cloud Functions (for task reminders)

## Possible API

Location Tracking - Fused Location Provider API

# Wireframe

Login / Signup

Email

Password

Role (Manager/Employee)

Login

Sign Up

Clock In/Out

Clock In

GPS Map

Last Clock-In: 10:30 AM

Employee List

Alice (In)

Bob (Out)

Carol (In)

Reports

Date

Employee

Attendance Report

Task Report

Generate