

# OGTech Summer Internship Program 2025

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Hello Team,

Welcome to OGTech! We are thrilled to have you join us for our Summer Internship Program, starting **Tuesday, July 2, 2025**.

Over the next month, you will work together as one team to build a real-world software project from scratch. The goal is to gain practical, hands-on experience across all areas of software development, from designing the database to building the mobile application interface.

Our project is called "**NurseryLink**".

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## Project Overview: NurseryLink

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**NurseryLink** is a mobile application designed to improve communication between parents and nursery teachers and help track a child's daily activities.

The application has two types of users:

- **Parents** - who can view their child's activities.
  - **Teachers** - who can record daily activities for children in their care.
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## Project Features & Data Structure

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Below is a detailed explanation of each feature and the information (fields) required in the system.

### 1. User Authentication & Roles

The system supports secure login for both Parents and Teachers. Access to different features is based on the user role.

#### Data Fields:

- **UserName** (Unique Identifier)
  - **FullName** (Full Name of the User)
  - **Email** (Used for login)
  - **Password** (Encrypted for security)
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### 2. Class & Student Management

Teachers will see a list of students assigned to their class. Parents will only see their own children.

#### Entities and Fields:

##### Class:

- **ClassName** (e.g., "Blue Butterflies", "Sunshine Group")

##### Student:

- **StudentCode** (Unique Identifier)
  - **FullName** (Student's full name)
  - **DateOfBirth**
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### 3. Daily Meals Log

Teachers can record the meals each child consumes throughout the day. Parents can view these records in real-time.

**Data Fields:**

- **MealType** (Breakfast, Lunch, Snack)
  - **Status** (Ate All, Ate Some, Refused)
  - **Timestamp** (Date and Time the meal was logged)
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### 4. Toilet Visits Log

Teachers can log details of children's toilet visits during the day.

**Data Fields:**

- **Student**
  - **VisitType** (Pee or Poo)
  - **Comments** (Optional notes)
  - **Timestamp** (Date and Time of the visit)
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### 5. Temperature Checks

For health monitoring, teachers can record students' temperature readings.

**Data Fields:**

- **Student**
  - **TemperatureReading** (Temperature in Celsius)
  - **Comments** (Optional notes)
  - **Timestamp** (Date and Time of the reading)
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### 6. Parent Notifications

Parents will receive automatic notifications for important updates.

**Notification Triggers:**

- If a student's temperature reading is above **37.5°C** (indicating a possible fever).
  - If a supply request is sent (e.g., requesting extra clothes, diapers, etc.) (**Extra Feature**).
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# Project Benefits

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This project will help you:

- Understand real-world system design and database relationships.
- Practice working as part of a development team.
- Gain experience building both backend systems and mobile applications.
- Learn how to structure and document a software project.

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## Required Knowledge Before Starting

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To successfully contribute to this project, it is recommended that each participant has basic knowledge in the following areas:

### Essential Topics to Know:

- **Git Basics:** How to clone a project, create branches, commit changes, and push updates.
- **Object-Oriented Programming (OOP):** Understanding classes, objects, inheritance, encapsulation, and polymorphism.
- **C# Fundamentals:** Basic knowledge of classes, methods, variables, and working with data.
- **ASP.NET Core Basics:** General understanding of how a web API works.
- **Entity Framework:** Basic understanding.
- **Dart Language Basics:** Syntax and structures of Dart programming.
- **Flutter Fundamentals:** Basic understanding of widgets, layouts, and navigation in Flutter.
- **SQL Basics:** Understanding how to create tables, write basic queries (SELECT, INSERT, UPDATE), and work with relationships.

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## Required Software Installation

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Please have the following tools and software installed on your laptops before the program begins on **July 2, 2025**:

- **Visual Studio 2022** with ".NET and Web Development" workloads.
- **Visual Studio Code** with the official Dart and Flutter extensions.
- **.NET 8 SDK**.
- **Flutter SDK** installed according to your operating system.
- **Git** for version control.
- **Postman** for testing APIs.
- **SQL Server Management Studio (SSMS)** for database management.

If you face any issues during installation, please contact the team for assistance in advance.

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## Internship Timeline & Plan

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Here is the structured plan for your internship:

## Week 1: Foundations & Planning (July 2 - 10)

- Introduction to the team and project.
- Design the database structure and entity relationships.
- Setup development environment and tools.
- Understand the system features in detail.

## Week 2: Backend Development (July 13 - 17)

- Build the system's core functionality:
  - User authentication.
  - Student, Class, and Parent data management.
  - The Meals logging feature.

## Week 3: Full System Integration (July 20 - 24)

- Connect the mobile application to the backend.
- Allow teachers to log in and record meals.
- Parents can view meal records.

## Week 4: Final Features & Presentation (July 27 - July 31)

- Complete additional features (Toilet visits, Temperature checks).
- Implement Parent notifications.
- Conduct full testing.
- Prepare and deliver the final project presentation.

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We believe this will be an exciting learning experience, and we look forward to working with all of you to bring **NurseryLink** to life.

If you have any questions, please don't hesitate to ask.

Best regards,  
OGTech Team