

Project Plan

Daycare Attendance System

Daycare Buddy

Industry Partner	None
Primary Instructor	Anjana Shah
Team Member	Jam Furaque
Team Member	Andrew Stewart
Team Member	Daniel Konjarski
Team Member	Carl Angelo Miguel Trinidad
Team Member	Kei Ishikawa
Team Member	Matthew Ciavarella

Document Revision History

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0.1	10/07/2024
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Table of Contents:

1. Executive Summary

- a. Objective
- b. Corporate Goals Addressed
- c. Planned Start Date
- d. Planned End Date

2. Project Approvers, Reviews, and Distribution list

3. Scope

- a. In Scope
- b. Out of Scope

4. Deliverables

5. Assumptions

6. Dependencies

- a. Internal Dependencies
- b. External Dependencies

7. Risk Management

8. Communication

- a. Reporting
- b. Meetings

9. Task Listing (WBS- Work Breakdown Structure)

10. Gantt Chart

11. Milestones

12. RAM- Responsibility Assignment Matrix

13. Approval

1. Executive Summary

The following describes the project to be executed.

Objective	<p>The Attendance System aims to modernize attendance tracking in daycare centers by replacing traditional manual, paper-based methods with a more efficient and secure digital system. Our solution will streamline the management of children's daily activities while ensuring safety. This system will provide real-time notifications to parents, allow monitoring of children's status, and support the management of multiple daycare branches and staff operations.</p> <p>*We originally planned to use this system along with RFID cards for attendance tracking. However, the vendor informed us that linking the system with RFID cards would take longer than expected. Since it would not meet the deadline, we decided to abandon the RFID idea.</p>
Corporate Goals Addressed	<ul style="list-style-type: none"> • Automate attendance tracking using a digital system. • Provide parents with real-time notifications about their child's attendance and status. • Improve operational efficiency for daycare staff. • Enable centralized management for multiple daycare branches. • Enhance security and accuracy in attendance tracking.
Planned Start Date	September 18, 2024
Planned End Date	March 28, 2025

2. Project Approvers, Reviews and Distribution List

Approvers, reviewers and distribution list

Project Role	Name	E-mail	Date
Product Manager	Andrew Stewart	andrew.stewart@georgebrown.ca	Oct 7, 2024
Backend Developer	Jam Furaque	jam.furaque@georgebrown.ca	Oct 7, 2024
SMS Integrator	Daniel Konjarski	daniel.konjarski@georgebrown.ca	Oct 7, 2024
Frontend Developer	Kei Ishikawa	kei.ishikawa@georgebrown.ca	Oct 7, 2024
Backend Developer	Carl Trinidad	carl.trinidad@georgebrown.ca	Oct 7, 2024
Quality Assurance / Tester	Matthew Ciavarella	matthew.ciavarella@georgebrown.ca	Oct 7, 2024

3. Scope

Define the sum total of all of its products and their requirements or features.

In Scope	Out of Scope
Digital attendance tracking managed by teachers	RFID-based attendance tracking
SMS notifications to parents	Physical setup of RFID readers
Attendance records management	Management of SMS subscription service

User interface for staff, daycare-admin, and client(parent/guardian)	Integration with third-party services beyond SMS
Data security and privacy	Procurement of RFID hardware
Attendance report generation	Offline Functionality
Alert system for anomalies	Advanced AI Features
System scalability	Multi-language Support
Parent communication portal	

4. Deliverables

This project will deliver the following.

Deliverable	Description
MERN stack development	Development of the entire application using MERN stack, including both front-end and back-end integration
Digital attendance tracking system	Implementation of a digital system where teachers manually record attendance, replacing traditional paper-based methods.
SMS notification system	Integration of an automated SMS notification feature that sends real-time messages to parents regarding their child's attendance.
Admin and parent Interface	Development of user-friendly interfaces for daycare staff, administrator, and parents, allowing for attendance tracking, data management, and communication.

5. Assumptions

- The daycare center will use a digital attendance system where teachers manually record student attendance instead of RFID cards.
- Parents have mobile phones of receiving SMS notifications
- The daycare facility will have internet access to operate the system.
- Daycare staff will be trained to use the attendance system properly.
- The system will be accessed through a web-based interface, and daycare staff will have the necessary devices (computers or tablets) to use it.
- The daycare center will maintain accurate and up-to-date student and parent contact information for SMS notifications.

6. Dependencies

The following are the internal and external dependencies that will have to be acknowledged and addressed;

External Dependencies

- The SMS API service must be reliable for the notification feature to function properly.
- The internet connection at the daycare facility must be stable to support real-time attendance tracking and notifications.
- Availability of cloud or database hosting services to store and manage attendance records securely.
- Compliance with data privacy regulations to ensure secure handling of sensitive user data.

Internal Dependency

- Daycare staff must be trained to use the digital attendance system correctly.
- The web-based system must be accessible on daycare facility devices (computers, tablets, etc)
- Parents must provide valid and up-to-date contact information for receiving SMS notifications.
- The system must be properly maintained and updated to ensure smooth operation.

7. Risk Management

Potential Risk	Severity (H/M/L)	Likelihood (H/M/L)	Management Strategy
SMS API failure	High	Medium	Set up redundancy by integrating a backup SMS provider.
Internet connectivity issues	high	Medium	Ensure the system can queue messages and sync data once reconnected
Delays in development due to technical issues	High	Medium	Allocate buffer time in the schedule for unexpected issues.
User adoption challenges (staff training issues)	High	Low	Implement encryption, access controls, and regular security audits.
System scalability issues	Medium	Medium	Design system architecture to support future scalability and performance testing.

8. Communication

Reporting

The following reports will be produced;

Report	Audience	Frequency
Progress Report	Anjana Shah	Weekly
Testing Report	Team Members	End of sprint

Meetings

The following meetings/communication will be established;

Meeting	Purpose	Attendees	Frequency
Sprint Planning	Plan tasks for upcoming sprint and presentation	Team Members	Weekly
Weekly Updates	Address issues and progress updates	Team Members	twice a week or more
Retrospective	Review completed sprint	Team Members	End of sprint

9. Task Listing (WBS- Work Breakdown Structure)

The following resource proposal template summarizes the resource hours committed to this project, upon final approval of this document.

*Updated; RFID Removed

Reference	Tasks	Duration	Dependency
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A	SMS Notification Development	2 weeks	A
B	Database Setup	2-3 weeks	A
C	Back-End Development	4 weeks	B,C
D	Front-End Development	4 weeks	D
E	Testing and Debugging	2 weeks	E

10. Gantt Chart

Create a detailed Gantt Chart from your Task Listing(Use any software tool and paste the image or upload as a separate file that can be opened as pdf/doc/xls)

Task	Q4 2024		Q1 2025								Status
	16-Dec	30-Dec	1-Jan	14-Jan	21-Jan	28-Jan	7-Feb	21-Feb	28-Feb	8-Mar	
Tech Stack Finalization											COMPLETED
Backend Development											COMPLETED
Database Setup											COMPLETED
Security Features Finalization											ON GOING
Front-End Development											ON GOING
Testing and Debugging											ON GOING
SMS Integration											Not Started

11. Milestones

Major Activity or Milestone	Estimated Milestone Target date	Owner/Reviewer Team Members
Project Summary Document	Week4 Sep 16, 2024	All team members
Sprint1	Week5 Oct 2, 2024	All team members

Sprint2	Week6 Oct 7, 2024	All team members
Presentation I	Week7 Oct 16, 2024	All team members
Sprint3	Week9	All team members
Sprint4	Week12	All team members
Presentation II	Week 13-15	All team members
Sprint5	Week4 Feb 2, 2025	All team members
Presentation III	Week5 Feb 7, 2025	All team members
Sprint 6	Week7 Feb 23, 2025	All team members
Project Completed	Week12 Mar 28, 2025	All team members
Presentation IV	Week13 Apr 4, 2025	All team members







12. RAM – Responsibility Assignment Matrix

*Updated; RFID Integration removed

Project Team Responsibilities						
Project Name: Daycare Attendance system Project Manager: Andrew Stewart						
Task	Kei	Jam	Carl	Matthew	Andrew	Daniel
SNS Notification Development	S			S	S	P
Database Setup		P	S			S
Back-End Development	S	P	P	S	S	S
Front-End	P	S	S		S	
Testing and Debugging	S	S	S	P	S	S
• P => Primary • S => Secondary						

13. Approval

The signatures below indicate their approval of the contents of this document.

Project Role	Name	Signature	Date
Product Manager	Andrew Stewart		Feb 2, 2025
Backend Developer	Jam Furaque		Feb 2, 2025
SMS Integrator	Daniel Konjarski		Feb 2, 2025
Frontend Developer	Kei Ishikawa		Feb 2, 2025
Backend Developer	Carl Trinidad		Feb 2, 2025
Quality Assurance / Tester	Matthew Ciavarella		Feb 2, 2025

