

IT PRC 7 - System Integrations and Architecture

Phase 1 System Integration

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Project Documentation

1.0 Kind of Software System

The software system is a student attendance system with RFID technology that automates the attendance-taking process and tracks student attendance.

1.1 Module / Scope of the Software System

The modules of the software system include the following:

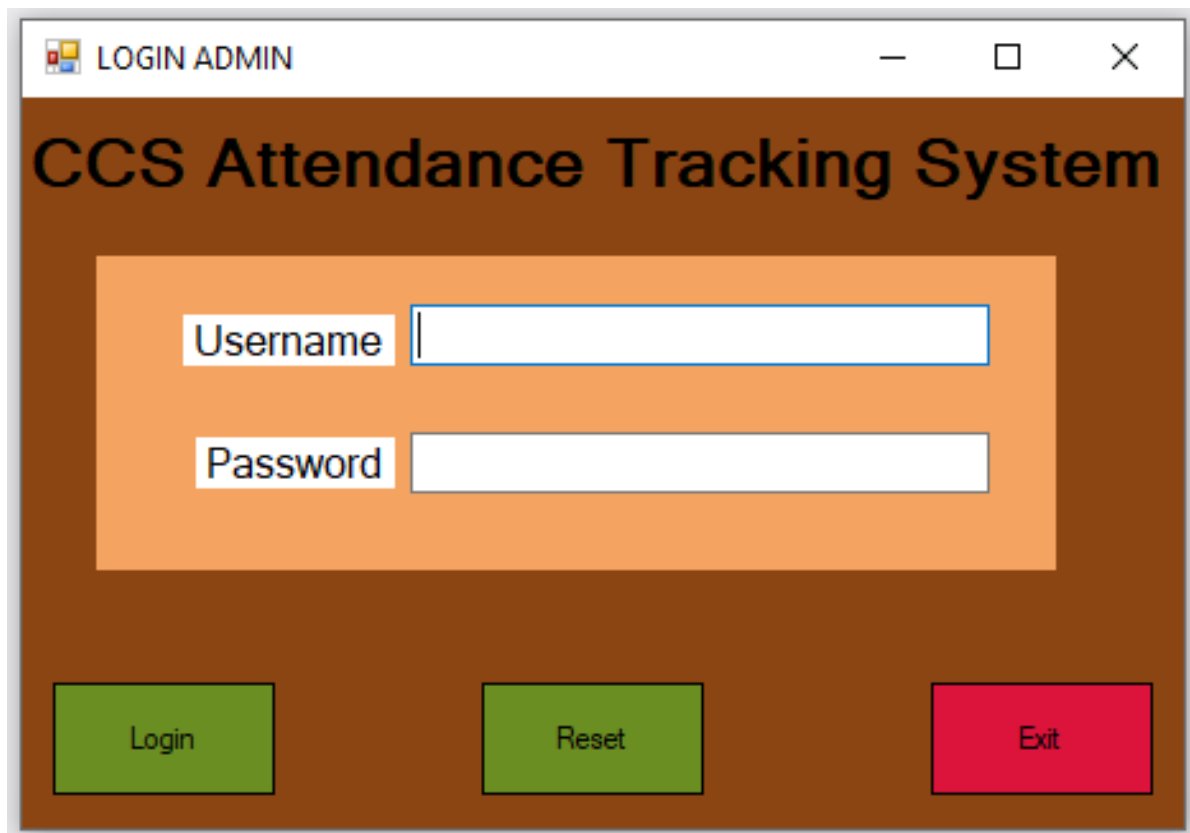
1.1.1 RFID Reader: This module registers the RFID cards of the students

1.1.2 Attendance Management: This module manages the attendance data, marks attendance, and generates attendance reports.

1.2 Screenshot of the Modules / Scope

Phase 1 System Integration

IT PRC 7 - System Integrations and Architecture



The image shows a screenshot of a web application window titled "LOGIN ADMIN". The window has a standard Windows-style title bar with minimize, maximize, and close buttons. The main content area has a brown background. At the top, the text "CCS Attendance Tracking System" is displayed in a large, bold, black font. Below this, there is a light orange rectangular box containing two input fields. The first field is labeled "Username" and the second is labeled "Password". Both fields are empty. At the bottom of the window, there are three buttons: a green "Login" button, a green "Reset" button, and a red "Exit" button.

LOGIN ADMIN

CCS Attendance Tracking System

Username

Password

Login Reset Exit

Phase 1 System Integration – Admin Log-In Page





IT PRC 7 - System Integrations and Architecture

CCS INFORMATION MANAGEMENT

studentid First Name Middle Name Last Name Program/Course Gender

	ID	studentID	firstName	middleName	lastName	program
▶		0011040484	Ronnie	De Jesus	Cutamora	BSIT
		0010910351	John Paul	Dordas	Pallan	BSCS
		0007834268	karl	F	Arzola	BSCS
		0011186100	Jisoo	Yoon	Chol	BSCS
		0010940488	Andrew	Peterson	Jimenez	BSIT
*						

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INSERT  SEARCH  UPDATE  DELETE  VIEW TIME IN TIME OUT EXIT

Phase 1 System Integration – Student Information Page

IT PRC 7 - System Integrations and Architecture

The screenshot displays the CCS Attendance Tracking System interface. At the top, there's a title bar with the text "CCS ATTENDANCE TRACKING SYSTEM". Below this, the interface is divided into several sections. The top section has a light orange background and contains three main areas: "TIME IN" with a left arrow icon and an input field, "RFID SCAN" with a document icon and a "Time In/Out Selector" dropdown menu currently set to "Time Out", and "TIME OUT" with a right arrow icon and an input field. The middle section has a darker orange background and displays "STUDENT NO" as "0010940488" and "Time Out" as "5/17/2023 8:11:32 PM". The bottom section features a table with columns: firstName, middleName, lastName, program, gender, timeIn, and timeOut. The table contains five rows of student data. Below the table is a horizontal scrollbar. At the very bottom, there are four buttons: "EXIT", "LOAD RECORDS", "GENERATE ATTENDANCE REPORT", and "VIEW STUDENT INFORMATION MANAGEMENT SYSTEM".

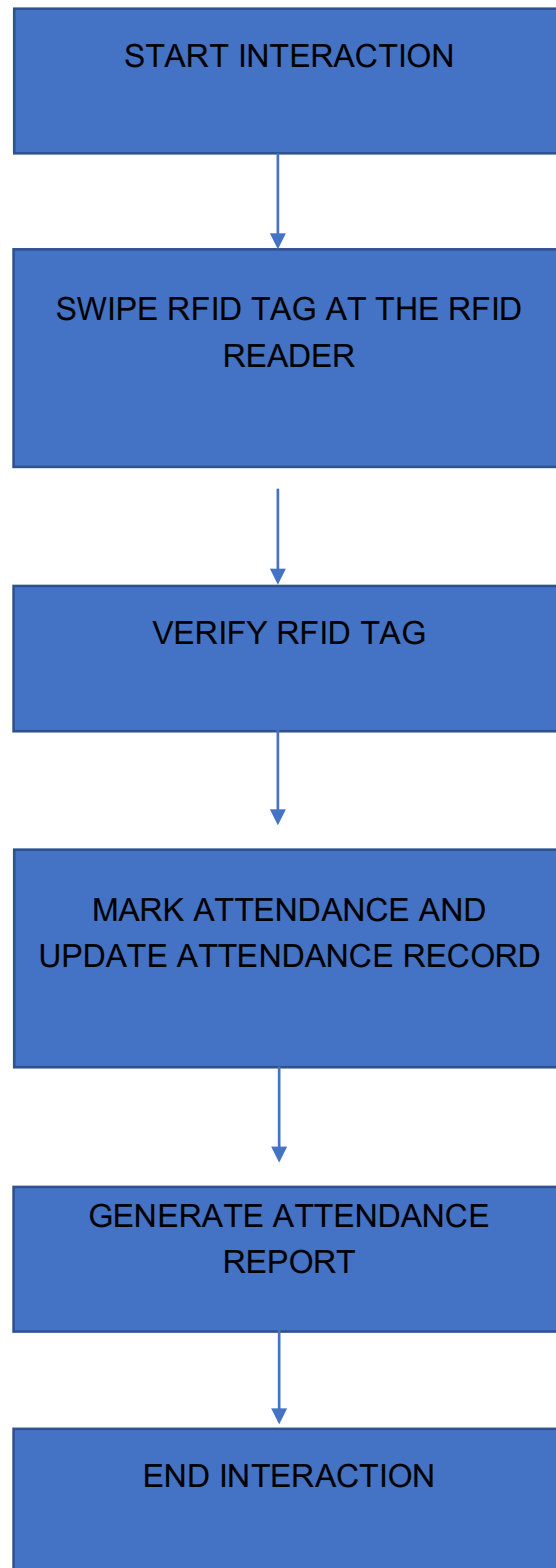
	firstName	middleName	lastName	program	gender	timeIn	timeOut
▶	Ronnie	De Jesus	Cutamora	BSIT	FEMALE	5/13/2023 12:10:...	5/13/2023 12:11:...
	John Paul	Dordas	Pallan	BSCS	MALE	5/17/2023 7:57:...	5/17/2023 7:57:...
	karl	F	Arzola	BSCS	MALE	5/17/2023 8:01:...	5/17/2023 8:01:...
	Jisoo	Yoon	Chol	BSCS	FEMALE		
	Andrew	Peterson	Jimenez	BSIT	MALE	5/17/2023 8:11:...	5/17/2023 8:11:...
*							

Phase 1 System Integration – Time-In/Out Page

1.3 User Flow Diagram

The user flow diagram shows how a typical user will interact with the software system. The user will first swipe their RFID tag at the RFID reader. The system will then mark their attendance, update their attendance record, and generate an attendance report.

IT PRC 7 - System Integrations and Architecture



IT PRC 7 - System Integrations and Architecture

1.4 Database Tables and Fields

The following tables and fields are used in the software system:

1.4.1 Students table: This table stores information about each student, including the student ID, name, class, and attendance record.

1.5 Database Schema Screenshot

The screenshot shows the Microsoft Access interface with the 'tbStudentInfo' table selected. The table has the following fields: ID, studentID, firstName, middleName, lastName, program, gender, timeIn, and timeOut. The data is as follows:

ID	studentID	firstName	middleName	lastName	program	gender	timeIn	timeOut
29	0011040484	Ronnie	De Jesus	Cutamora	BSIT	FEMALE	5/13/2023 12:11	5/13/2023 12:11
30	0010910351	John Paul	Dordas	Pallan	BSCS	MALE	5/17/2023 7:57	5/17/2023 7:57
31	0007834268	karl	F	Arzola	BSCS	MALE	5/17/2023 8:01	5/17/2023 8:01
34	0011186100	Jisoo	Yoon	Chol	BSCS	FEMALE		
35	0010940488	Andrew	Peterson	Jimenez	BSIT	MALE	5/17/2023 8:11	5/17/2023 8:11
(New)								

MS Access Database and MS Excel sample generated report

The screenshot shows the Microsoft Excel interface with a sample generated report. The report contains the following data:

ID	studentID	firstName	middleName	lastName	program	gender	timeIn	timeOut
29	11040484	Ronnie	De Jesus	Cutamora	BSIT	FEMALE	5/13/2023 0:10	5/13/2023 0:11
30	10910351	John Paul	Dordas	Pallan	BSCS	MALE	5/17/2023 19:57	5/17/2023 19:57
31	7834268	karl	F	Arzola	BSCS	MALE	5/17/2023 20:01	5/17/2023 20:01
34	11186100	Jisoo	Yoon	Chol	BSCS	FEMALE		

IT PRC 7 - System Integrations and

Phase 1 System Integration

1.6 System Flowchart

When a student swipes their RFID tag, the system reads the tag data and updates the attendance record in the database. The attendance management module generates attendance reports based on the data stored in the database. The student management module updates the student information in the database.

