ADDIS ABABA INSTITUTE OF TECHNOLOGY

Identification System

Software Design Specification

2016

ITSE-2211/2171

Software Design Specification for

Identification System

Group Members:

1. Kidus Makonnen
2. Tibebe Solomon
3. Fraol Chala
4. Eyob Solomon
5. Dereje Mengistu

Prepared For: ITSE-2211/2171

Instructor: Lisanu T.

January, 2016

Contents

Introduction

Overview

This Software Design Specification document discusses about the software *Identification System*. It shall contain information such as the functions and purposes of the classes that are to be implemented in the program.

This document contains the UML class diagram and UML Sequence diagrams for each use cases in the SRS Document.

Scope

The ID System program offers an easy way to identify personnel. One of the benefits of this program is that it reduces the time needed to identify and allow entry to personnel (as compared to the traditional methods of identification). Using this program will also make it easier to give restricted access to certain facilities to different authorized users. Using this application will help the company save money by reducing the man power needed that was needed to perform this task. It also provides more security as authorized personnel will have control over who has access to what.

The administrator version of the program will be able to store new membership information and issue an ID Card with a unique QR-Code that will be used to identify the employee. It will also let authorized users access information about the currently enrolled personnel. It will also make it possible to alter these information.

The client version of ID System is a simple program whose sole purpose is to scan the QR code printed on a personnel's ID Card and cross-reference it with the personnel information database. Based on the personnel's permission, it will either grant or deny entry to a facility.

I. UML Class Diagram

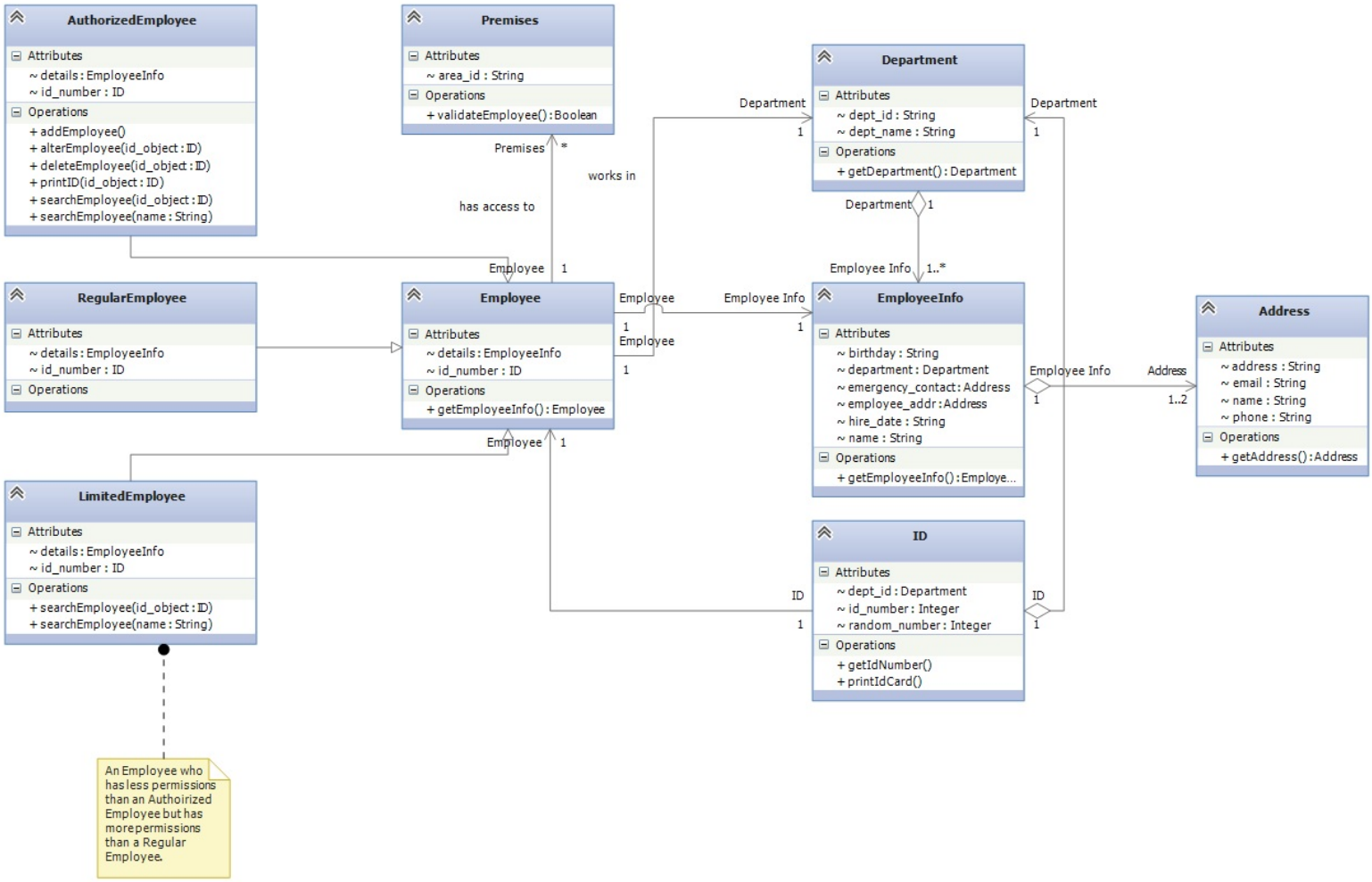

Figure 1. ID System Class Diagram

II. UML Sequence Diagrams

1. Add Personnel

Employee information will be added to the employee information database.

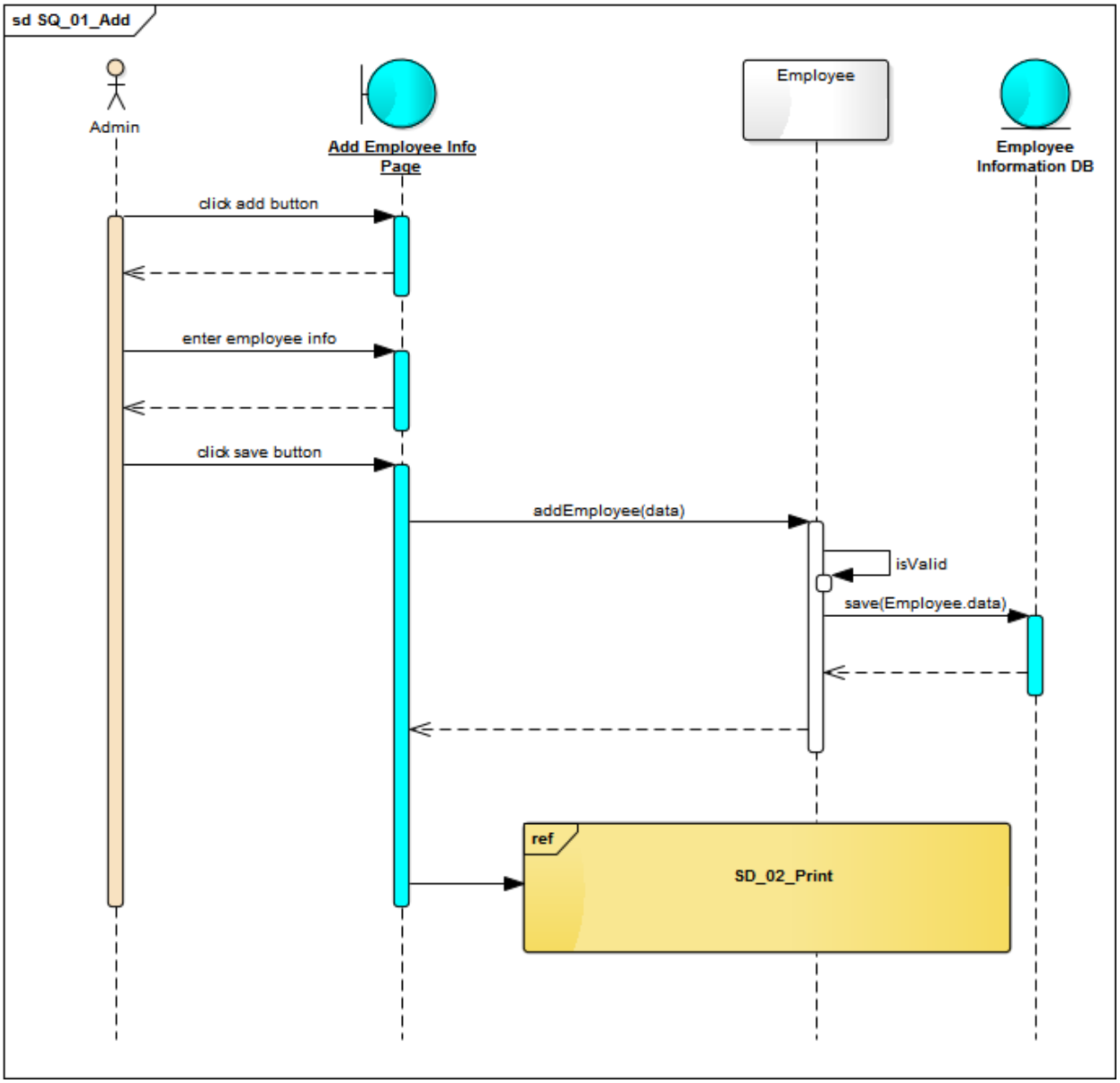

Figure 2. Add Personnel Information

2. Issue ID Card

Personnel will be issued new ID Card.

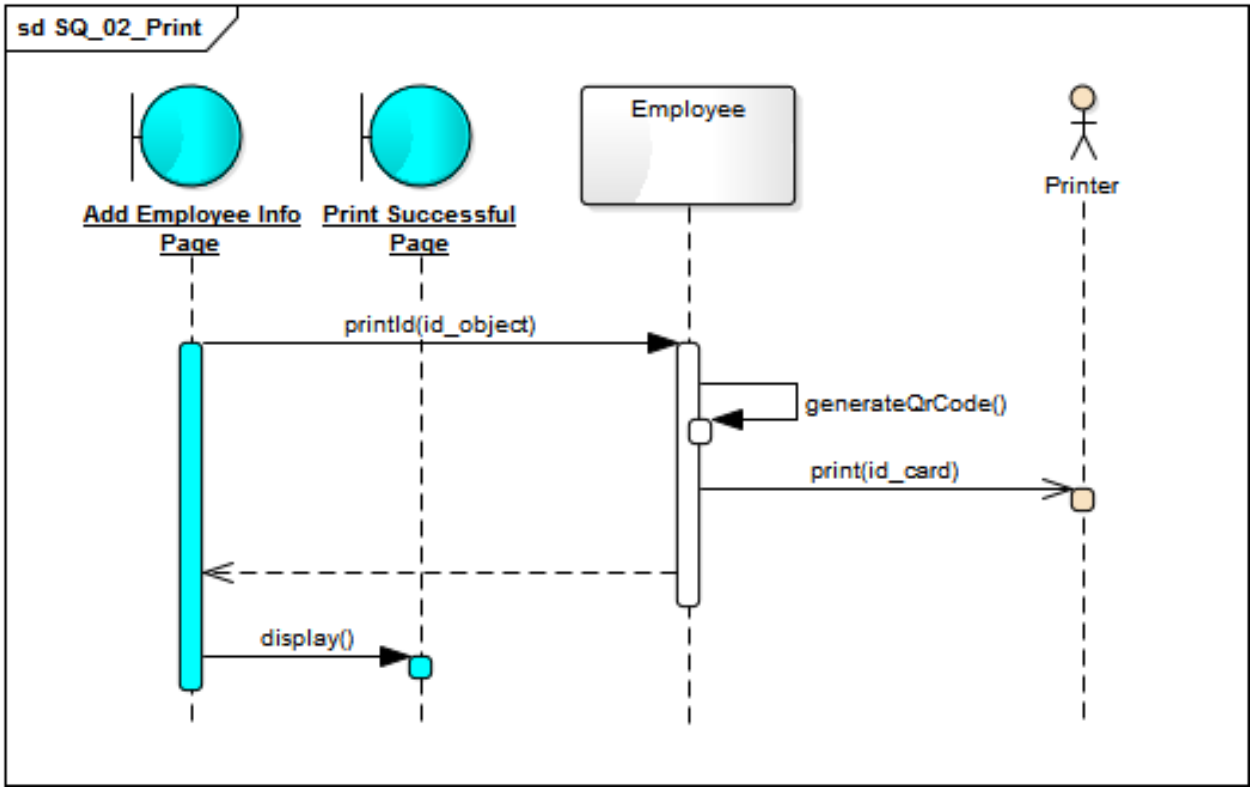

Figure 3. Issue ID Card

3. Identify Personnel

The employee will be identified.

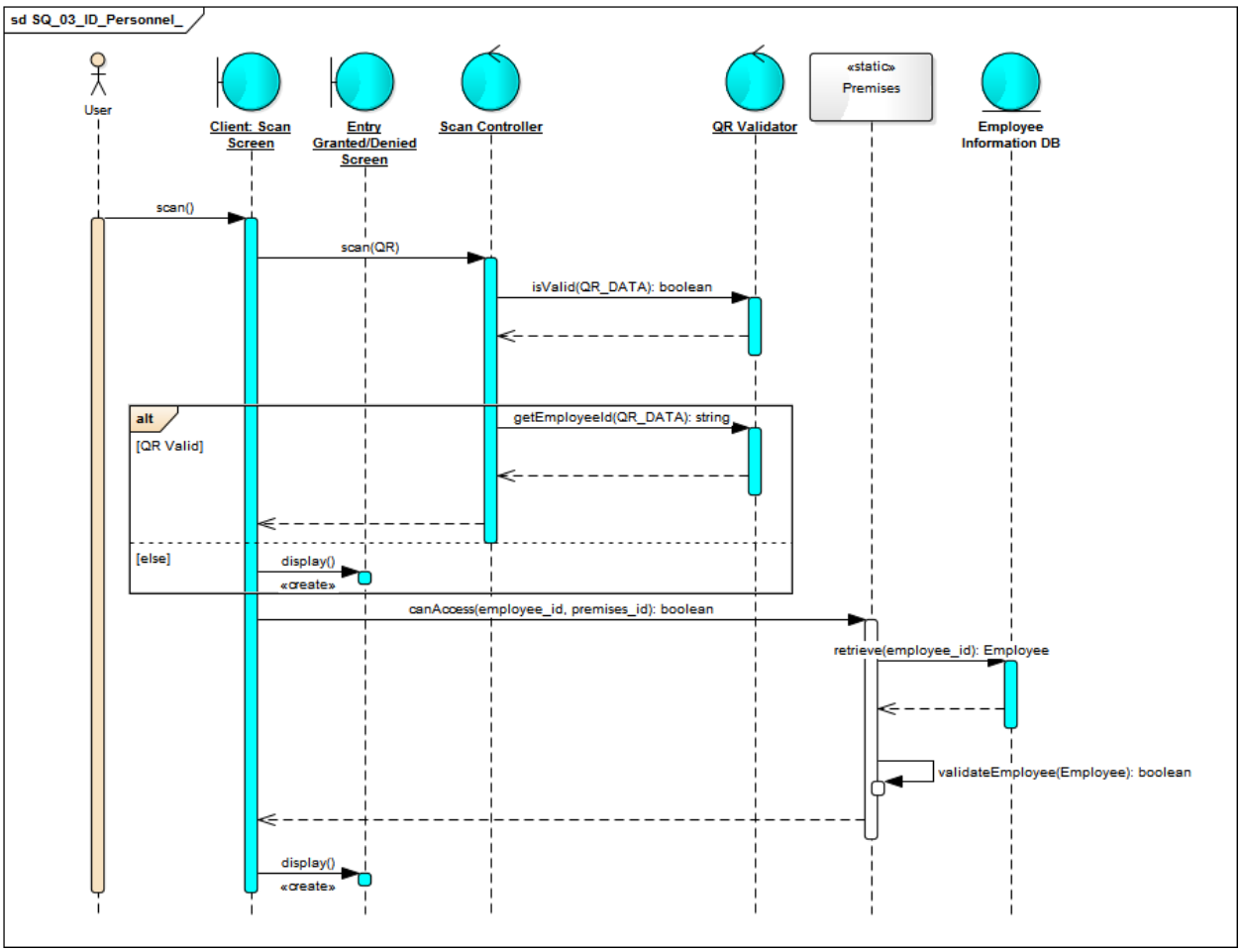

Figure 4. Identify Personnel (Client Application)

4. Search Information

The system will search the employee information database

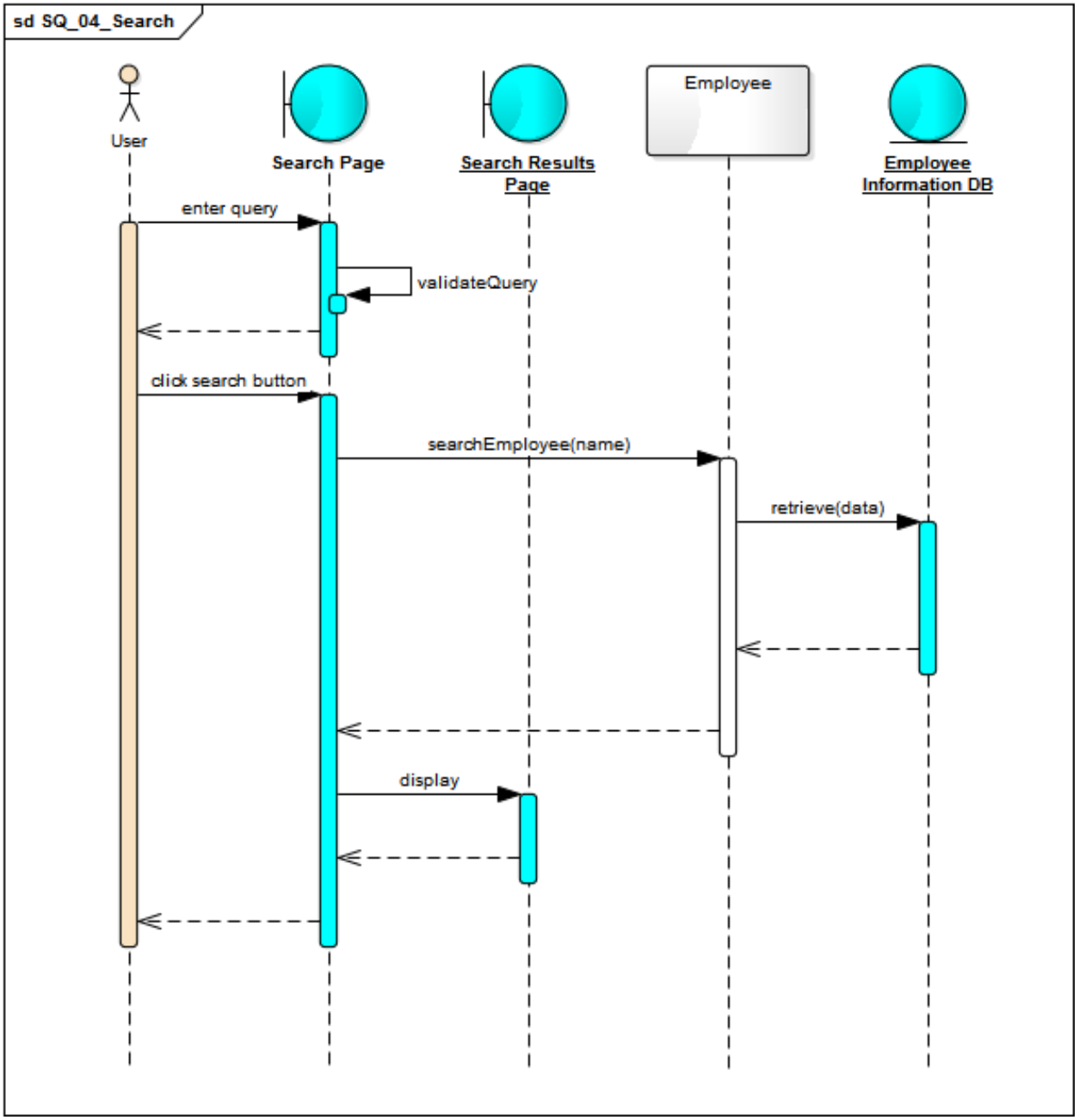

Figure 5. Search Information

5. Display Information

Personnel Information will be displayed.

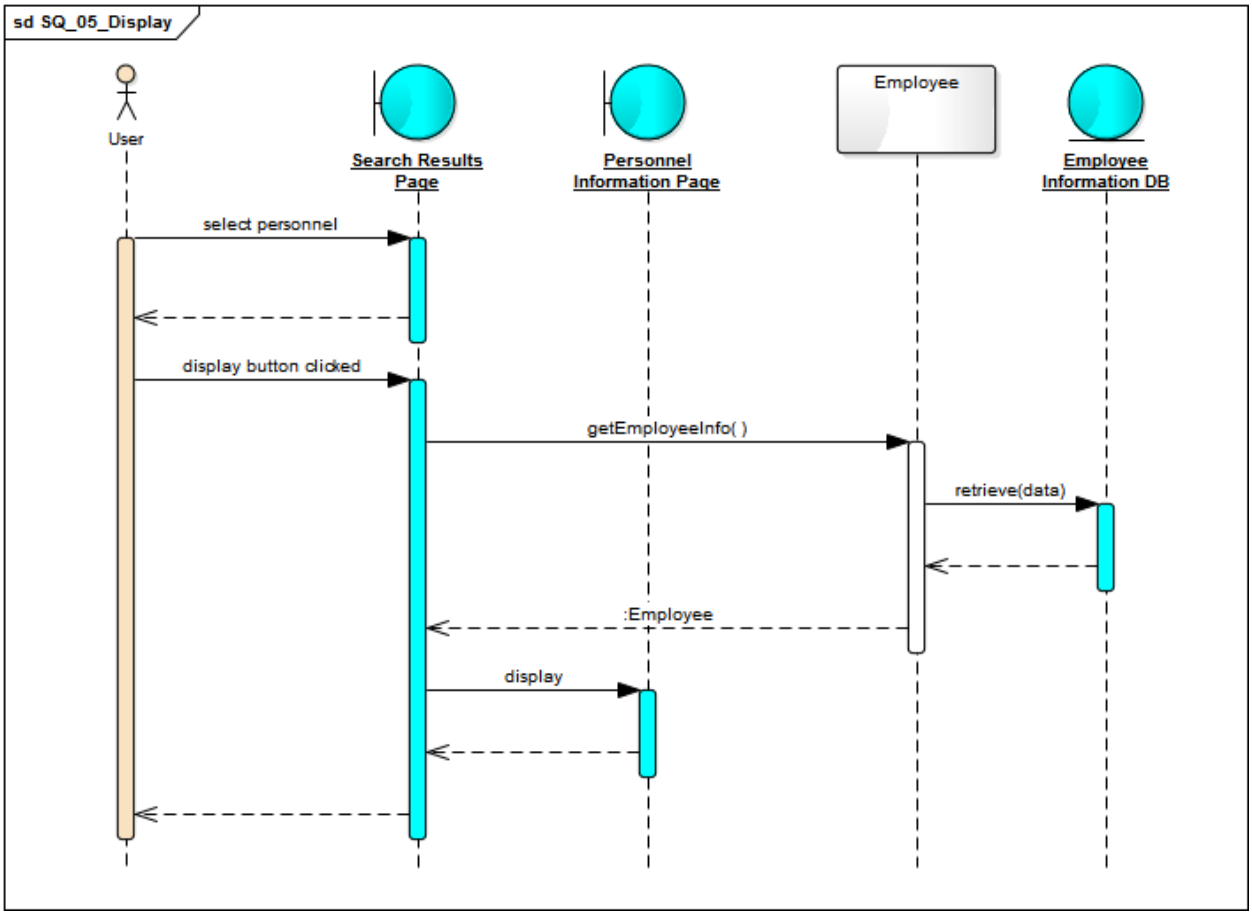

Figure 6. Display Information

6. Alter Information

Employee information will be altered.

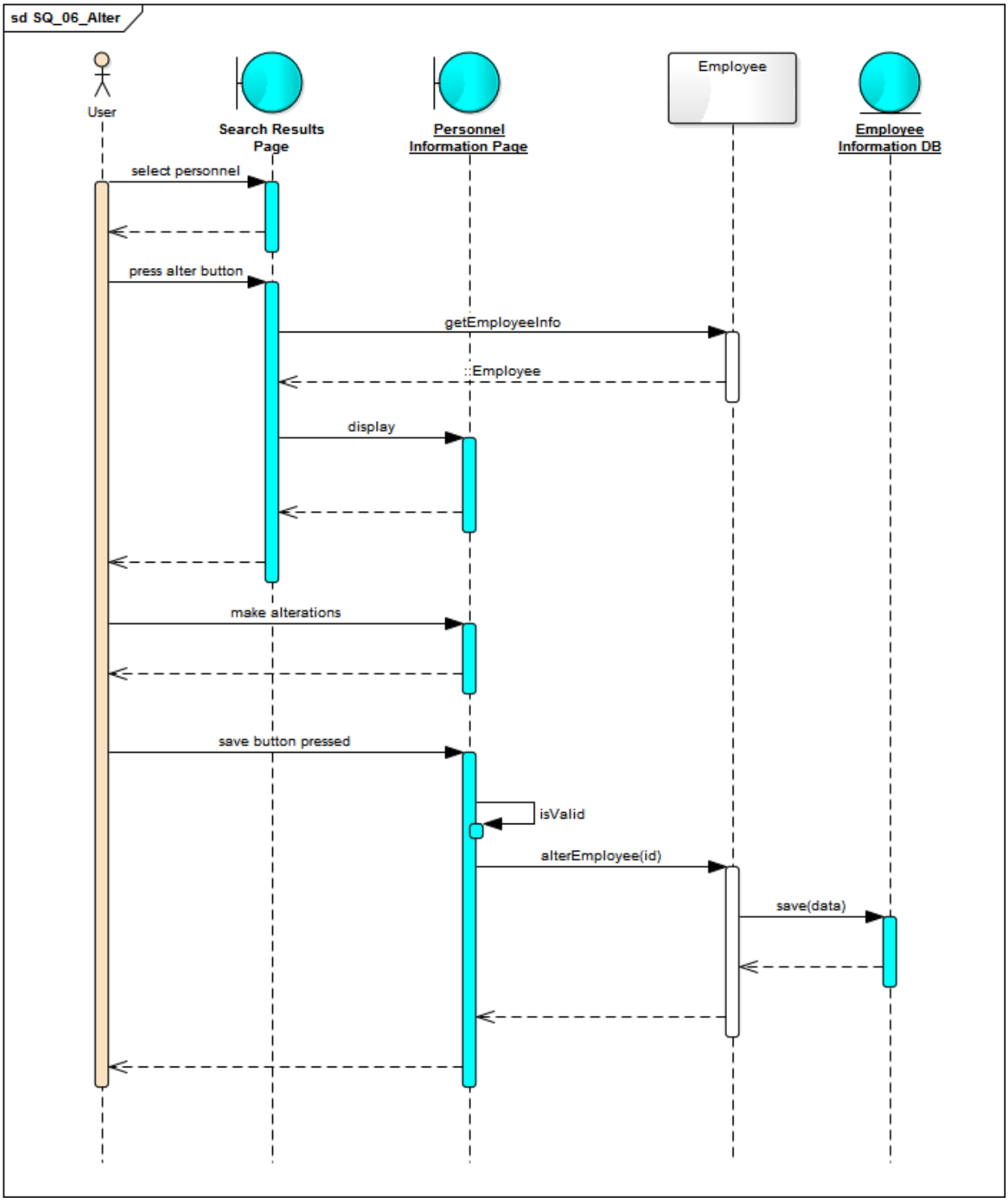

Figure 7. Alter Information

Glossary

Glossary

Android OS: Android Operating System

Authorized Personnel: A user with permission. The phrases “Authorized Personnel” and “Authorized User” are used interchangeably in this document.

Groups: are used for access control. Groups organize collection of user accounts, primarily as a security measure.

ID: Identification

OS: Operating System

Personnel: the people employed in an organization. Used interchangeably with the word “employee(s)” throughout this document.

Premises: a piece of land and the buildings on it.

QR-Code: a machine-readable code consisting of an array of black and white squares, typically used for storing URLs or other information for reading by the camera on a smartphone.