

Software Design Document

B&B Monitoring System

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4-9-17

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1.0 Overview

This section is an introduction to the project and gives an overall view of all things included in the SDD document.

1.1 Scope

The “Bed & Breakfast Software” system is to manage the reservations and monitor expenses and profits. When a potential customer calls for a reservation, they will check the calendar, and if there is a vacancy, they will enter the customer name, address, and phone number, dates, agreed upon price, credit card number, and room numbers. Reservations must be guaranteed by 1 day’s payment. Reservations will be held without guarantee for an agreed upon time. If not guaranteed by that date, the reservation will be dropped.

1.2 Purpose

The purpose of this document is to give an in depth description of the requirements for the “Bed & Breakfast Software” (BBS). It contains instructions for the development of the software along with constraints, interface and applications. This document is to be delivered to the customer for approval and the development team for production.

1.3 Definitions

Term	Definition
User	Someone who interacts with the B&B application
Administrator	A user with additional privileges
Stake Holder	Any person who has interest with the system and he/she is not a developer. Usually a customer
Database	Collection of information that is used by the system

1.4 References

IEEE. IEEE Std 1016-2009 IEEE Recommended Practice for Software Design Document. IEEE Computer Society, 1998.

2.0 Design Description

2.1 Introduction

The purpose of this section is to give an introduction upon which contents the B&B Monitoring system shall require. Identified in this section are: design stakeholders, design concerns, design viewpoints and design views.

2.2 Design Stake Holders and Concerns

Design stake holders are employee users and admin users. The employee users concerns are in the functionality of the customer report interface, communication with the database, creating reservations and payment processing. The administrator user is concerned with the creation of new employee users, access to the database and report generation.

2.3 Design Views

The software shall include two different views. The first being the system view where all users will interact with the program. The second being the database view where administrators will access information for business purposes.

2.4 Design Viewpoints

The two viewpoints the software shall include are the system viewpoint and the database viewpoint. The system viewpoint concerns are incorrect information input when users are creating customer reports and processing payment. Elements for the system viewpoint include: customer name, address, phone, reservation date, room price, payment type, payment

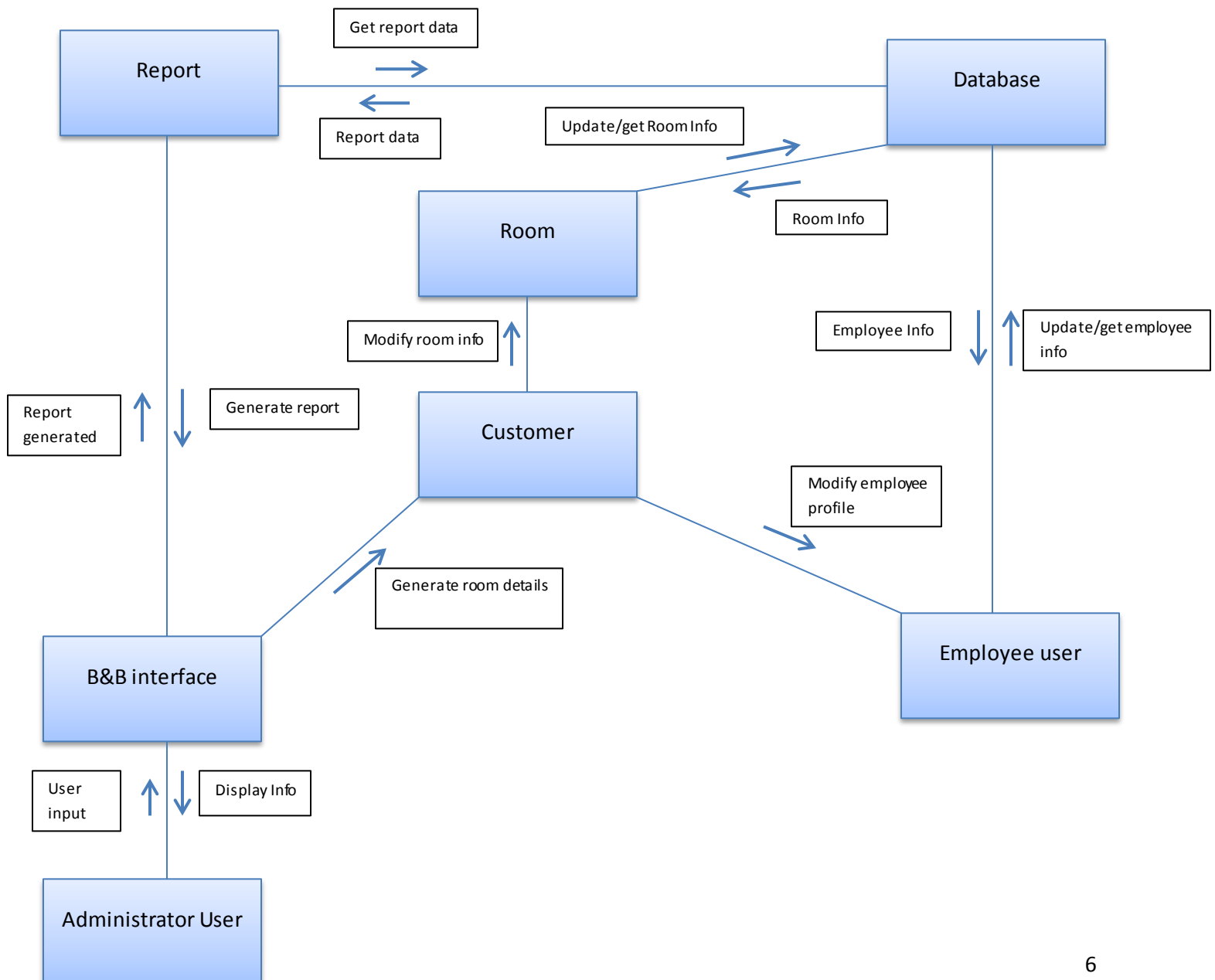
information and room number. The database viewpoint concerns are correct generation of reports and user credentials. The elements for the database viewpoint include the system viewpoint elements in addition to: User name, username, password, date of birth, pay rate, account type, reservation totals, income, profit, customer retention.

3.0 Design Viewpoints

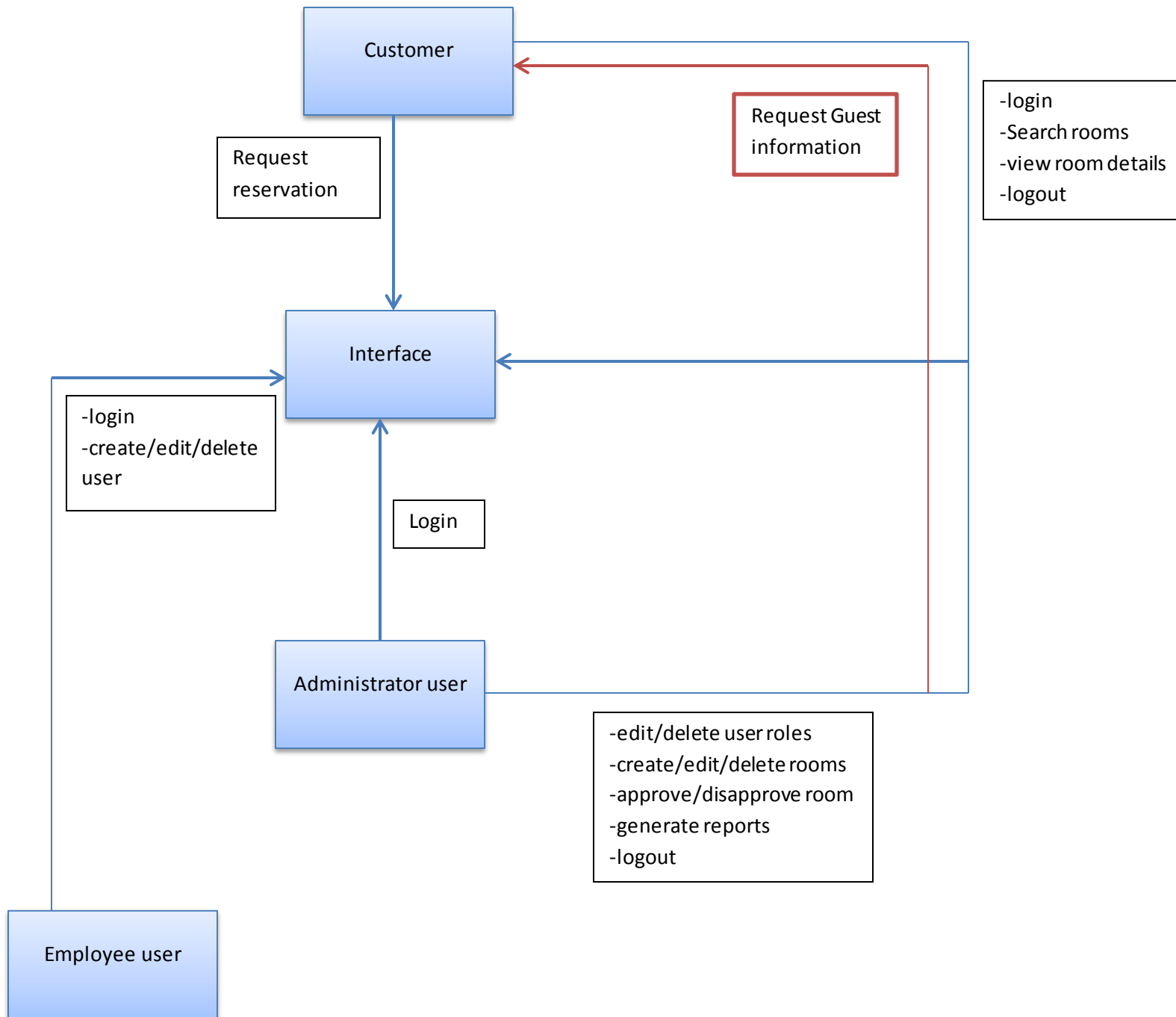
3.1 Introduction

The purpose of this section is to provide the reader with the necessary diagrams for understand the design viewpoints of the software. The diagrams include: architecture diagram, data flow, data model and interface design.

3.2 Architecture Diagram



3.3 Data Flow



3.4 Data Model

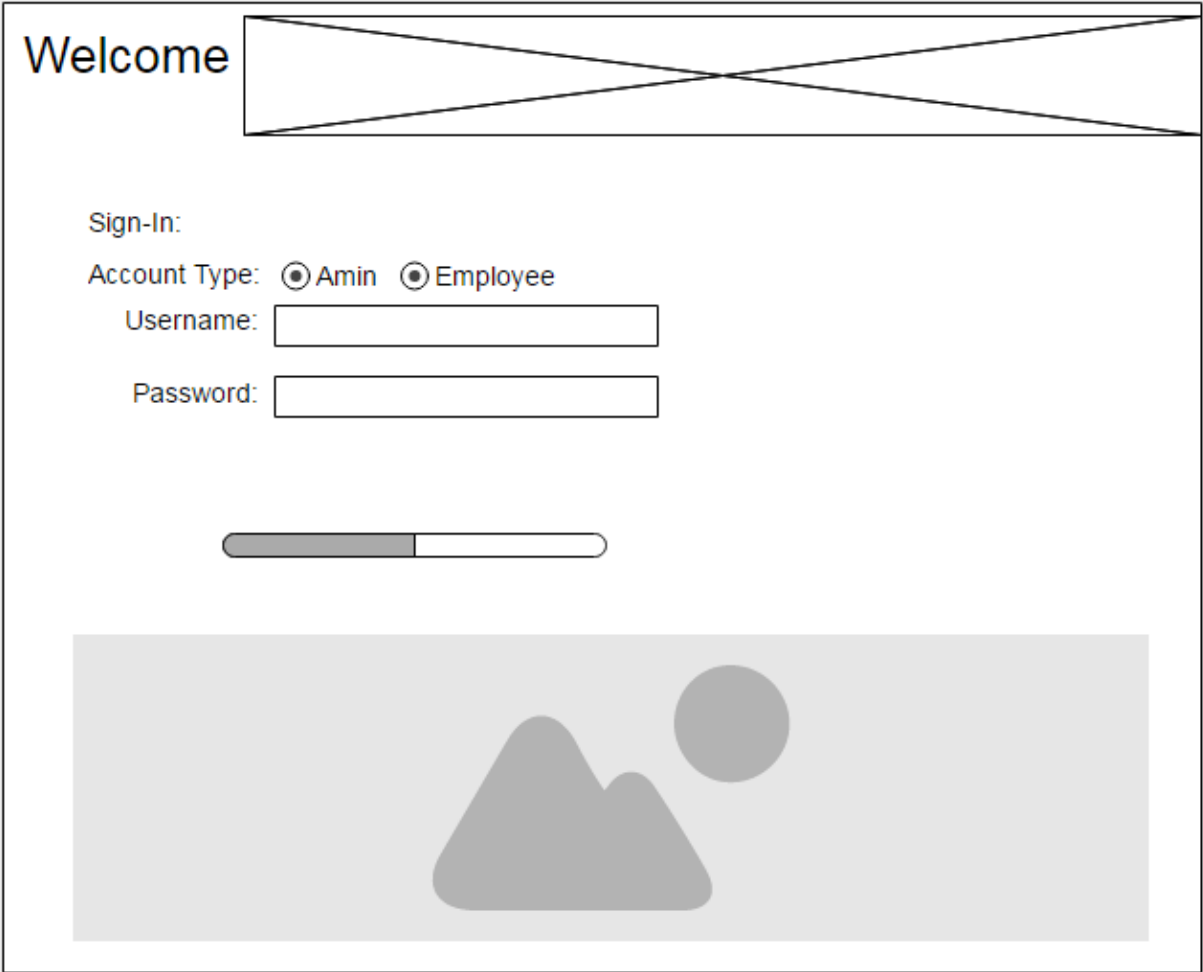
User Class			
Attribute Name	Required	Type	Default Value
First Name	Yes	String	FFFF
Last Name	Yes	String	LLLL
User ID	Yes	Integer	00000000

Associate Class			
Attribute Name	Required	Type	Default Value
Customer Name	Yes	String	NNNNNNNN
Customer Address	No	String	AAAAAAA
Reservation Date	No	String	RRRRRRRR
Payment Type	Yes	String	PPPPPPPP
Reservation Price	Yes	Float	#####
Payment Information	Yes	Integer	#####
Room Number	No	Integer	00000000

Administrator Class			
Attribute Name	Required	Type	Default Value
Reservation Totals	Yes	Integer	00
Income	Yes	Float	000.00
Profit	Yes	Float	000.00

3.5 Interface design

Login Screen



The login screen interface is enclosed in a light gray border. At the top left, the word "Welcome" is displayed in a large, bold, black font. To its right is a rectangular area with a black border and a large 'X' drawn across it. Below the "Welcome" text, the label "Sign-In:" is followed by the "Account Type:" label. Under "Account Type:", there are two radio button options: "Amin" and "Employee". Below these are two input fields: "Username:" and "Password:". Under the "Password:" field is a progress bar consisting of a gray-filled segment on the left and a white segment on the right. At the bottom of the screen is a large, light gray rectangular area containing a stylized graphic of two gray mountains and a gray circle representing the sun or moon.

This is the login screen where users can select which type of account they are login into to move onto the correct page depending upon their access.

Employee Main Page

Welcome

Employee Options

Desired Date:

MM/DD/YYYY

Check Availability

Customer Name:

Name

Customer Address:

Address

Reservation Date:

Date

Payment Type:

Payment

Reservation Price:

####

Payment Information:

####

Room Number:

Create reservation

In the employee main page the employee can check for room availability and/or create a reservation for a customer.

Administrator Main Page

Welcome

Administrator Options

[Edit User](#)

[Print Reports](#)

Search by Username

Username:

Employee Name:

Name

DOB:

MM/DD/YYYY

Password:

XXXXXXXX

Update

Delete

[Create User](#)

Username:

Create

Earnings Report

Reservations Report

Employee Report

In the administrator main page admins can print reports as well as create, update and delete employee users.