Developed by students of Conestoga College

# Conestoga Inn

Hotel Reservation System

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# Contents

# Introduction

The objective of the project is to automate hotel reservation. It allows hotel staff to perform elementary operations related to this process:

1. Give a potential customer's preference, check room availability
2. Manage customer information
3. Manage room reservations, including the check-in and check-out process
4. Add room service and restaurant charges to the existing bookings

# Scope of the project

Current scope of the project is to run it under a development environment as defined in System Requirement section only. Also, encryption of a customer's sensitive information like password, personal details and credit card before saving it to database is not under the scope of the project.

In addition, the functional scope does not include integration with payment gateways to authorize and charge payments on credit cards.

Other than that, the Function Specification section described the functionality implemented under current scope of the project.

# Technology & System Requirements

The technologies used in development of this project are as follows:

| | |
|---|---|
| Front End (GUI) and business logic | C# programming language |
| Integrated Development Environment | Microsoft Visual Studio 2010 Developer edition |
| Back-End (database) | Microsoft SQL Server 2008 R2 |
| Operating System | Windows7 |
| Application and database connectivity (On system where we need to run the application) | ADO.Net – ODBC classes and Data Source (ODBC) connection using SQL Server Native client 10.0 driver |

The targeted system should support the above mentioned technologies.

## Special instructions for initial Set-up:
Note: The user performing this step should have administrative privileges on the system.

1. Copy project  - Copy the project folder on the system where you intend to run the project

2. <u>Database Creation</u> – On the targeted database server which has Microsoft SQL Server 2008 R2 installed, launch the SQL Server Management Studio, browse to the path in the project folder - HotelReservationSystem\Database_Script and open the HRS_script_2008_R2.sql file. Execute this script to generate required database objects and populate the tables with required information.

3. <u>Data Source Creation</u> – On the targeted system where you need to run the application,
    a. Go to Control Panel\System and Security\Administrative Tools -> Data Sources (ODBC).
    b. On this window, to create a new User DSN click on Add-> Select SQL Server Native Client 10.0 driver and click on Finish button. It will open a "Create a New Data Source to SQL Server" window.
    c. Enter HRS in the Name field, add a description for it and select your SQL server from the dropdown list.
    d. Accept the default for the authentication and click on next.
    e. Select checkbox for "Change the default database to:" and from the dropdown list select the HotelReservationSystem database and click on Next.
    f. Accept defaults and click on Finish button.
    g. On this screen, click on the "Test Data Source" button and ensure that it returns a message that "TESTS COMPLETED SUCCESSFULLY!" If yes, click on Ok and again click on OK to create the DSN. If the test fails then further troubleshooting is required to fix the problem before proceeding further.

4. Initial credentials to logon to the application are - userid: admin; password: password.

# Function Specifications

## Log On to the application

When user starts the "Conestoga Inn – HRS" application, the first page displayed is the Logon page. To logon to the application, a user needs to enter valid "User ID" and "password" and click on "LogOn" button. If required, a user can click on the "Clear" button to clear data entered in the text fields. If the user is authorized, it will show the Welcome screen of the application.
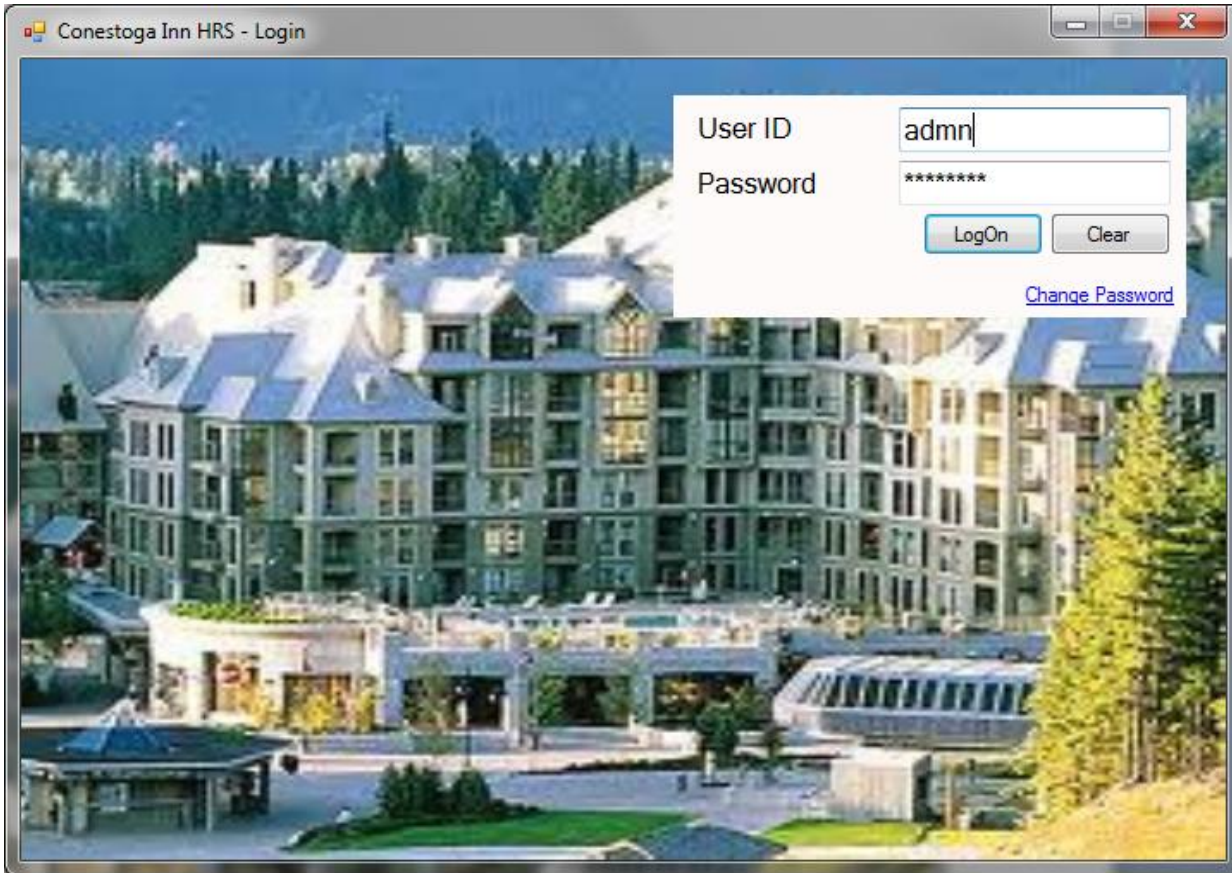
## Change password for a user

Users can change password from the Logon page, if they wish. To change password, click on the link "Change Password". It will pop-up a "Change Password" dialog box so that user can enter userid , existing password, new password and confirm new password. If the user's credential are valid and the new and confirm password matches, it will update the password in the system and notify user that password is changed successfully.
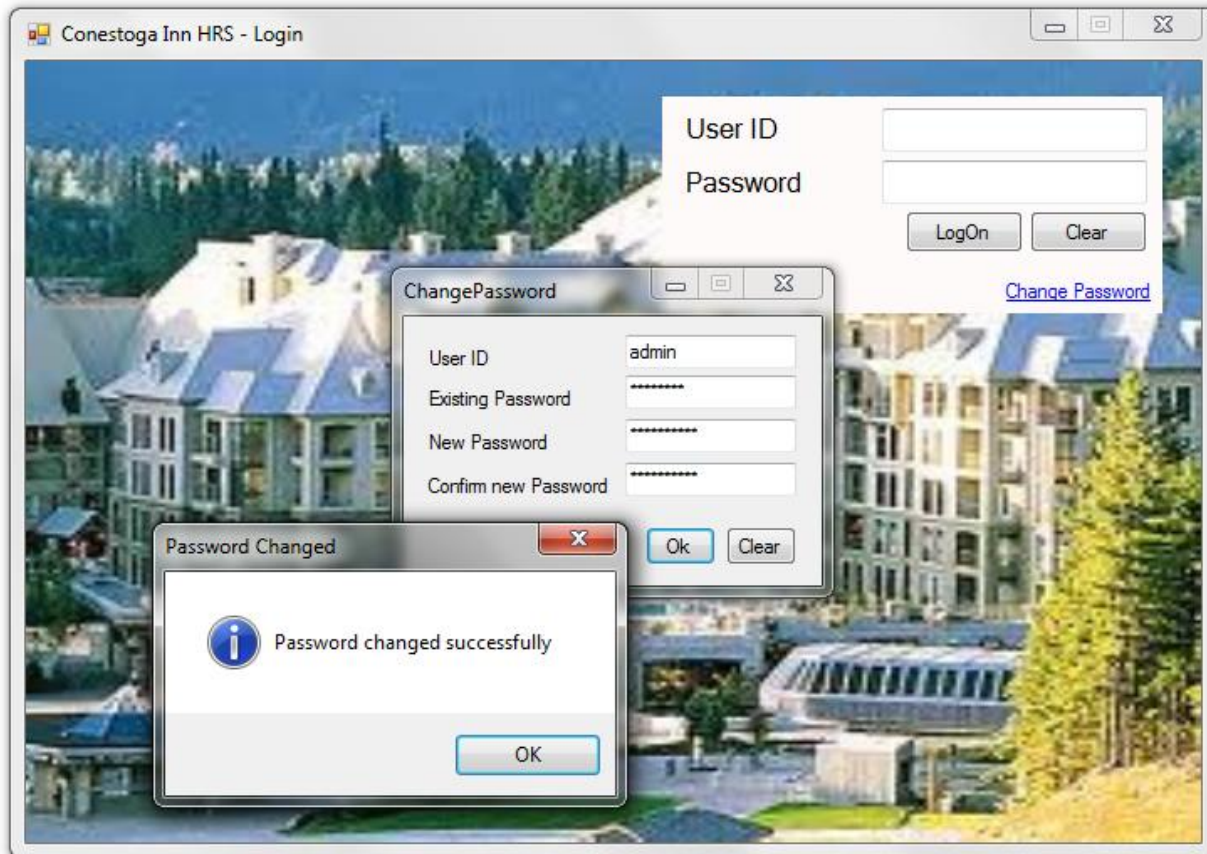
## Welcome Page of Conestoga Inn Hotel Reservation System

Once a user is authorized on the Logon page, the Welcome screen of the application is shown. The Welcome screen allows the authorized user to – Retrieve Existing Booking of a user and Check room's availability for new guest. Additionally, it shows the graphical layout of the hotel showing the current status of each room using a color code.

## Retrieve Existing Booking

Enter a user's First name and Last name in the Retrieve Existing Booking group box and click on retrieve button. First name is optional but last name is required for retrieving existing booking. If more than one matching results found, it will show all bookings in a new window in List view. The authorized person should be able to identify the correct booking for the guest by verifying additional details.

Following screen shows a booking retrieved for a guest with first name David and last name Johnson:

System found multiple guests with name David Johnson and show this information in a list view as shown below:
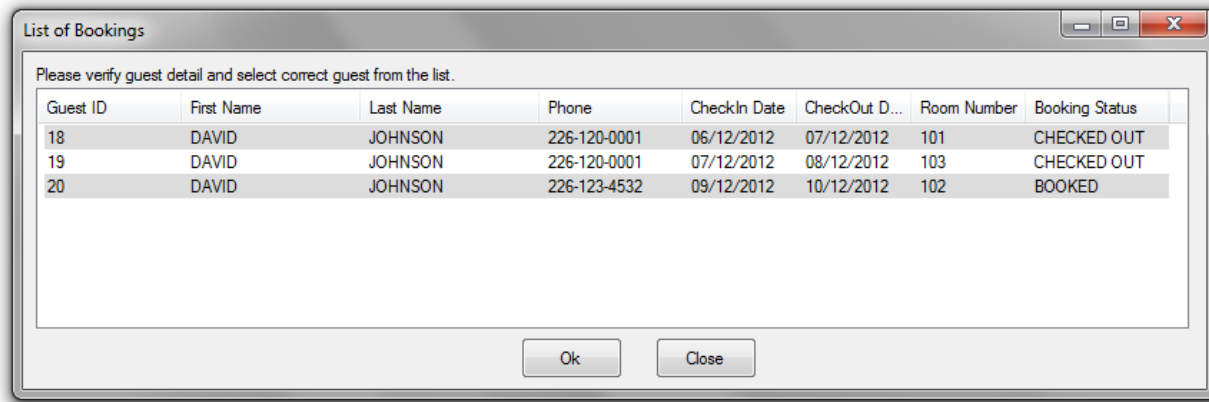


Once a booking from this list is selected and clicked on OK, it should open the Booking page which will show further details about the booking and the guest.

On the other hand, if retrieve booking results in just one matching result, it will directly show the Booking page for that booking.

## Check Availability of a room

To check availability of a room, based on user's preference the system can support, select the Check-In and Check-Out date which are mandatory. Select the room type and floor a user wish to stay in. Once we click button is clicked, it will disable all the rooms for selection which do not matches user's preference. The available rooms are show in "Green" color code. The user should be able to pick a room by click on that room. When user click on an room, it will show the Booking page with this rooms information and booking information entered under the Check Availability section.

For example, user entered check-in and check-out date, selected "Single" for room type and "1" for the floor or room level and click on OK. The available rooms are show in "Green". Rooms not matching the preferences are disabled for selection and those which match the preferences but are not available are shown in "Red".

## A new booking

Now, user can click on any of the room with "Green" color to make a new booking. When user clicks on the room, it will show the booking page as follows:

User can click on Save and booking should be successful after some basic data validation. Once the booking is saved, a guest ID and Booking ID number is generated by the system and the update status is displayed on the screen:

User can close the form and it should bring the user back to the Welcome page. On the Welcome page, since this room is booked now its color code is changed to reflect that it is "Booked" for today.

## Guest Check-In

A guest when arrives at hotel, will provide their last name to the front desk clerk. The front desk clerk would be an authorized user of the application, so they can "retrieve" booking as described in the section "Retrieve Existing Booking".  The booking form would show the status as "Booking" as described in the screen shot after the booking was saved. To check-In a guest, the staff will verify the identity and mark this as confirmed by selecting appropriate identity type. Once this is done, staff can click on the "Check-In" to check in the user and hand over the room's key. Following is the booking page of a "Checked In" guest:



Staff can close this form and go back to the Welcome page. The color for this room will be changed to "Blue" to indicate that guest has checked in now.

## Modifying details of a booking

Staff can modify details of an existing booking by clicking on Modify button on its booking page. However, one limitation in this application is that check-out date can't be extended from this page. To extend a checkout date, User will create a new booking for the existing guest.



Once the changes are done, user can save current booking information by clicking on the Save Booking button.

## Add charges to a room

A checked-in guest may avail room services and incur some expenses in the hotel's restaurant. They have an option to bill it to the room they are checked-In. This functionality is based on the assumption that appropriate room service charges and restaurant charges will be reported for a room, the current booking information for that room will be retrieved from the Welcome page and charges will be added to this room by clicking on Add Charges button. Following screen show that a staff member is adding some room service and restaurant charges to room#103:

Once user click on "Add" button, the new charges will be applied and booking page is updated to reflect the appropriate charges:

## Check-out a guest

Hotel staff can check-out a guest by simply clicking on the Check Out button. However, a guest can be checked out only if the payment has been charged to them and payment status is updated to mark it as Paid in the system. This application is not integrated with the payment gateway and it is staff's responsibility to ensure that the payment is successful.

Once a guest is Checked Out of a room, this room will automatically become available for another guest. This booking can still be searched later on by using first name and last name of the guest. If required, it will still allow guest to be charged for bills reported after the guest was checked out.