

**The King**

**William Hotel**

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Presented to:

Basil J. Cleese and Development Team

of:

The King William Hotel

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**Introduction**

The King William Hotel, a historic much-loved landmark built in 1923. It serves the community of Ontario and offers guests hospitality and services that makes the guest want to come back. Due to the hotel’s older age and transition to the modern world, the hotel has renovated it’s rooms to look part of an early 20th era, Although the rooms have changed, the hospitality and service remain the same. This transition to the modern world and its perpetual top of the line service has come at cost. Although the staff maintain a great system to book the hotel’s information, it is now time for their system to adopt a new modern take, not only to facilitate but to also improve their service. With this Report, our team will be doing our best to show case the many different approaches we have taken to meet the client’s requests with as much accuracy as possible and to present the application we have created. Without further delay, here is our solution to The King William case.

MISSION STATEMENT

The purpose of the King Williams Database Application is to store and manage information to improve efficiency and control of hotel processes.

OBJECTIVES

- To maintain (enter, update, delete) data on rooms

- To maintain (enter, update, delete) data on room reservations

- To maintain (enter, update, delete) data on customers

- To maintain (enter, update, delete) data on customer billing

- To maintain (enter, update, delete) data on chargeable items

- To maintain (enter, update, delete) data on transactions

- To maintain (enter, update, delete) data on employees

- To maintain (enter, update, delete) data on employment positions

- To perform searches on rooms

- To perform searches on room reservations

- To perform searches on customers

- To perform searches on customer billing

- To perform searches on chargeable items

- To perform searches on transactions

- To perform searches on employees

- To perform searches on employment positions

- To track the status of rooms

- To track the status of customer bills

- To track the status of customer requests

- To report on room reservations

- To report on customers

- To report on customer billing

- To report on chargeable items

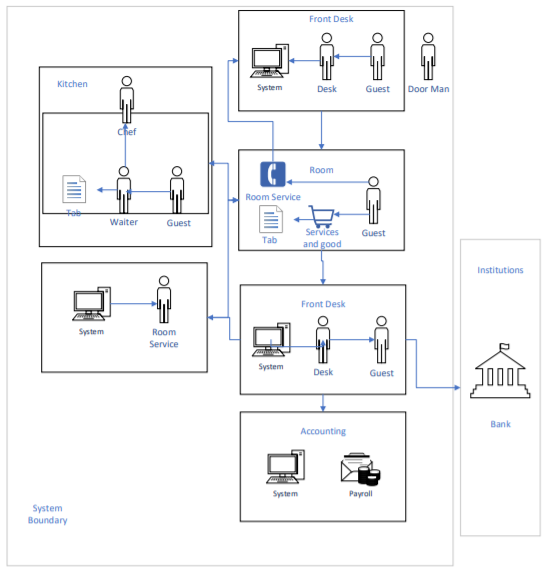
- To report on transactions

- To report on employees

**User View**



SYSTEM DEFINITION



## 3NF

reservations(reservationID, roomNumber, customerID, billID, numberOfGuests, startDate, endDate, notes)

rooms(roomNumber, floorNumber, roomTypeID, statusID, notes)

roomStatus(statusID, statusDescription)

roomTypes(roomTypeID, roomType, pricePerNight)

customers(customerID, firstName, lastName, phoneNumber, addressID)

addresses(addressID, addressLine1, addressLine2, city, provinceID, country, postalCode)

provinces(provinceID, provinceCode, provinceName)

customerBilling(billID, billAmount, reservationID, paymentType, amountOwing)

chargeableItems(itemID, itemName, itemDescription, itemPrice)

transactions(transactionID, billID, itemID, amountOfItems, date)

staff(staffID, firstName, lastName, phoneNumber, addressID, positionID, salary, hiredDate, terminationDate, photo)

employmentPositions(positionID, positionTitle, positionDescription, startingSalary)

users(userID, username, password, roleID, staffID)

roles(roleID, roleTitle, roleDescription)

# Data Dictionary

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table | Column | Data Type | References | Default | Not Null |
| <reservations> | reservationID | INT |  | Identity | Y |
| <reservations> | roomNumber | INT | <rooms>.roomNumber |  | Y |
| <reservations> | customerID | INT | <customers>.customerID |  | Y |
| <reservations> | billID | INT | <customerBilling>.billID |  | Y |
| <reservations> | numberOfGuests | INT |  |  | Y |
| <reservations> | startDate | DATETIME |  |  | Y |
| <reservations> | endDate | DATETIME |  |  | Y |
| <reservations> | notes | VARCHAR |  |  | N |
| <rooms> | roomNumber | INT |  | Identity | Y |
| <rooms> | floorNumber | INT |  |  | Y |
| <rooms> | roomTypeID | INT | <roomTypes>.roomTypeID |  | Y |
| <rooms> | statusID | INT | <roomStatus>.statusID |  | Y |
| <rooms> | notes | VARCHAR |  |  | N |
| <roomStatus> | statusID | INT |  | Identity | Y |
| <roomStatus> | statusDescription | VARCHAR |  |  | Y |
| <roomTypes> | roomTypeID | INT |  | Identity | Y |
| <roomTypes> | roomType | VARCHAR |  |  | Y |
| <roomTypes> | pricePerNight | MONEY |  |  | Y |
| <customers> | customerID | INT |  | Identity | Y |
| <customers> | firstName | VARCHAR |  |  | Y |
| <customers> | lastName | VARCHAR |  |  | Y |
| <customers> | phoneNumber | VARCHAR |  |  | Y |
| <customers> | addressID | INT | <addresses>.addressID |  | Y |
| <addresses> | addressID | INT |  | Identity | Y |
| <addresses> | addressLine1 | VARCHAR |  |  | Y |
| <addresses> | addressLine2 | VARCHAR |  |  | N |
| <addresses> | city | VARCHAR |  |  | Y |
| <addresses> | provinceID | INT | <provinces>.provinceID |  | Y |
| <addresses> | country | VARCHAR |  | ‘Canada’ | Y |
| <addresses> | postalCode | CHAR |  |  | Y |
| <provinces> | provinceID | INT |  | Identity |  |
| <provinces> | provinceCode | CHAR |  |  | Y |
| <provinces> | provinceName | VARCHAR |  |  | Y |
| <customerBilling> | billID | INT |  | Identity | Y |
| <customerBilling> | billAmount | MONEY |  |  | Y |
| <customerBilling> | reservationID | INT | <reservations>.reservationID |  | Y |
| <customerBilling> | paymentType | VARCHAR |  |  | Y |
| <customerBilling> | amountOwing | MONEY |  |  | Y |
| <chargeableItems> | itemID | INT |  | Identity | Y |
| <chargeableItems> | itemName | VARCHAR |  |  | Y |
| <chargeableItems> | itemDescription | VARCHAR |  |  | Y |
| <chargeableItems> | itemPrice | MONEY |  |  | Y |
| <transactions> | transactionID | INT |  | Identity | Y |
| <transactions> | billID | INT | <customerBilling>.billID |  | Y |
| <transactions> | itemID | INT | <chargeableItems>.itemID |  | Y |
| <transactions> | amountOfItems | INT |  |  | Y |
| <transactions> | date | DATETIME |  |  | Y |
| <staff> | staffID | INT |  | Identity | Y |
| <staff> | firstName | VARCHAR |  |  | Y |
| <staff> | lastName | VARCHAR |  |  | Y |
| <staff> | phoneNumber | VARCHAR |  |  | Y |
| <staff> | addressID | INT | <addresses>.addressID |  | Y |
| <staff> | positionID | INT | <employmentPositions>.positionID |  | Y |
| <staff> | salary | MONEY |  |  | Y |
| <staff> | hiredDate | DATE |  |  | Y |
| <staff> | terminationDate | DATE |  |  | N |
| <staff> | photo | VARCHAR |  |  | N |
| <employmentPositions> | positionID | INT |  | Identity | Y |
| <employmentPositions> | positionTitle | VARCHAR |  |  | Y |
| <employmentPositions> | positionDescription | VARCHAR |  |  | Y |
| <employmentPositions> | startingSalary | MONEY |  |  | Y |
| <users> | userID | INT |  | Identity | Y |
| <users> | username | VARCHAR |  |  | Y |
| <users> | password | VARCHAR |  |  | Y |
| <users> | roleID | INT | <roles>.roleID |  | Y |
| <users> | staffID | INT | <staff>.staffID |  | N |
| <roles> | roleID | INT |  | Identity | Y |
| <roles> | roleTitle | VARCHAR |  |  | Y |
| <roles> | roleDescription | VARCHAR |  |  | Y |