Web Application Practice
– Hotel Booking

An hotel would like to implement a web application to manage their room booking online.

The following information of each `Room` is stored:
`RoomID` – unique auto increment int to identify each room in the hotel.
`Level` – level of the room, e.g 07
`Unit` – unit of the room, e.g 18
`View` – view can only be either `sea view`, `pool view` or `garden view`
`RoomTypeID` – room type

The following information of each `RoomType` is stored:
`RoomTypeID` – unique auto increment int to identify the type of room
`RoomType` – currently room type can only be either `Deluxe Twin`, `Deluxe King` or `Suite`
`Price` – original price for the room
`Promotion` – promotion percentage for the room, defaulted as 1.0, can range from 0.1 to 1.0, and should be displayed as percentage values such as 100% instead of 1.0 when shown in a webpage.
`RoomImage` – optional field, url link to image file for the room type

The following information of each `Customer` is stored:
`CustomerID` – unique string to identify the customer
`Name` – name of customer
`PassportNo` – passport number
`DoB` – date of birth of customer
`Country` – country of customer
`Address` – address of customer

The following information of each `BookingRecord` is stored:
`BookingNo` – unique autoincrement integer to identify the booking
`RoomID` – room id
`CustomerID` – customer ID
`StartDate` – Date to start
`NoOfDays` – No. of days the customer will stay in the hotel for this booking
`PaymentStatus` – can be either `unpaid` or `paid`

The information is to be stored in above mentioned four tables.

Task 1.1

Create an SQL file to show the SQL code required to create the database with the above four tables.

Task 1.2

Read the data from the csv files and write into the database.

Task 1.3

Create a sql query to generate the **unpaid** outstanding bills for customer, **Derren Brett**.

The query should return details including:
`RoomLevel, Unit, RoomType, Price, Promotion, StartingDate, NumberOfDays`

Task 1.4

Design a simple web interface for the hotel to upload image for one of the room types. The form should contain a dropdown list for the 3 room types (dynamically generated) and a file upload option which allows user to choose a png file to be uploaded.

Upon receiving the image uploaded, the programme should save the file into the "static\rooms\" folder and rename the image file as "roomtype_xx.png" where xx is the 2-digit room type id such as "01". Find a hotel room image online, download it, and upload through the web app you have created.

A webpage should be displayed to signal the uploading is successful, and display `room type id`, `room type`, `price`, `promotion` and `image` as a result. The result page should be formatted as a html table, with presentable cell borders, background colors and alignments. The css formats should be saved in a separate file, style.css.

Task 1.5

Create a booking page where user is able to choose and select one room from the available types of the rooms using radio buttons. The page should display relevant information for all 3 types of rooms, and a date picker and text field for the user to select the starting date and number of days he/she wish to stay. The user should also enter his/her customer id for recording purposes.

You may assume there is no need for data validation in terms of room availability or clashes.

Upon success updating the database, a confirmation page should be displayed to confirm the booking with the user.