

# ISMM1-UC0727 Fall 2021

## Project – Create a Hotel Reservation Website

Submission Due by:

Sunday, December 12th at 23:59pm

Points:

50 points

### Deliverables

Upload your Webstorm Project folder to Github.

### Overall Requirements

In this project, you will create a website to support a hotel's reservation system. This is a small hotel rather than one of the huge chains so it must be special, and the website needs to reflect this specialty. For example, you might think that burger restaurants are all the same, but Hard Rock Café became special with its emphasis on music, decorating its outlets with paraphernalia from rock bands and having live bands playing. Your hotel will be in Manhattan and it only has 20 rooms. Think of what type of people you would want to attract. Maybe, people that love baseball or people that are into trains. Whatever your specialty, the name and logo of your hotel must reflect it. The website's welcome page must have graphics that support it and there must be text on the welcome page that will speak to your target customers.

Hotel reservation systems are large and complex. They take into account all kinds of preferences that customers have and match them to the available rooms every day. They distinguish between what's reserved, what's paid for and what they expect to happen. They have complex pricing algorithms based upon demand and they take into account, things like renovations that might be going on. For your website, we are going to make things a little easier. There will be fixed rates for different types of rooms. Customers will be able to state a few of their preferences and if a room matches their needs, then it will be reserved.

For this project, the following are the most important elements:

- 1) The general design of the website reflects the specialty
- 2) A reservation form that captures the necessary customer data.
- 3) The information that customers enter is validated.
- 4) Customers are given complete information about problems with their input or successful reservations.

## Business Description

### Overall Description of Hotel

The hotel is located on 41<sup>st</sup> Street in midtown Manhattan in an older 5-story building. It has 20 guest rooms spread over the four upper floors. On the ground floor, there are two meeting rooms and a small restaurant. Half of the guest rooms have a single king-sized bed and the others have 2 queens. On each of the four upper floors, there is one suite. Suites on the top two floors have king beds and on the lower two floors they have queen beds. Guests may smoke in all of the top floor rooms but none of the others.

### Current pricing

Nightly rates are based upon room (not person):

- rooms on the 2<sup>nd</sup> and 3<sup>rd</sup> floor are \$250 per night (Superior)
- rooms on the 4<sup>th</sup> and 5<sup>th</sup> floor have better views and are \$350 per night (Deluxe)
- all the suites are \$500 per night as they are larger.

### Reservation Rules

Customers have to select the dates for their reservation, the type of room they want, their bed type and smoking preferences.

When customers make a reservation they must provide, their name, address, loyalty card number (if they have one) and the number of people who will be staying in the room. There is a maximum of 2 people in the King and Double rooms and a maximum of 4 people in a suite. When making a reservation, the customer can indicate if they want breakfast to be included. The cost of breakfast is \$20 per person, except if a loyalty number is provided in which case it is free.

It is not possible to make a partial reservation. If the same room matching the reservation criteria is not available for all of the nights requested, the reservation should not be made.

If it is possible to fulfill a reservation, a specific room should be reserved.

## Specific Requirements

### Website Design Requirements

You must decide on the specific specialty of the hotel and then, based on that, come up with:

- 1) The name of the hotel
- 2) The logo for the hotel
- 3) Graphics that reflect the specialty
- 4) Colors and fonts that complete the design.

## **Website Functionality Requirements**

The website must have the following pages at a minimum:

- 1) Welcome Page.
- 2) Reservations Page.
- 3) Confirmation Page.
- 4) About Us page.

In addition to the reservations page that contains the reservation form, the welcome page must contain some interactivity, i.e. the content changes depending upon user actions.

## **General Requirements**

- 1) Every page on the site must contain a header and footer.
- 2) The header will show:
  - a. the hotel name (which will link to the welcome page)
  - b. logo (which will link to the welcome page),
  - c. the hotel phone number
  - d. an "About Us" page link.
- 3) The footer will show:
  - a. copyright info
  - b. the hotel address
  - c. a Directions link (that should link to Google Maps).

## **Welcome Page Requirements**

- 1) Welcome Page must include
  - a. text that describes what is special about the hotel
  - b. a link to the reservations page
  - c. multiple images

## **Reservation Page Requirements**

- 1) The reservation page must include a form to be completed by the user with their reservation preferences and customer details. If you choose, you can make this into a couple of forms, but for the purposes of these requirements, they are treated as one.
- 2) Validation for the form should be done as dynamically as possible. If there are validation problems, the user's entries should be retained until the reservation is completed. When the reservation is complete, the confirmation should be displayed.
- 3) The form must be well laid out with all the labels and entry boxes aligned.
- 4) The form must:
  - a. Include each of the customer's preferences, such as type of bed and smoking.
  - b. have each part of the name (first name and last name) broken out.

- c. have each part of the address (address1, address2, City, State, ZIP) broken out. You can assume the customer has a US address.
- d. have the State in the address be selected from a dropdown box.

### **Validation Requirements**

- 1) The reservation form must be validated based upon
  - a. The Number of Guests must meet the hotel rules for different room types
  - b. The Check In and Check Out dates must be after today.
  - c. The Check Out Date must be after the Check In Date.
  - d. Name and Address fields cannot be left blank (except for the Address2 field)
  - e. Zip Code must be 5 numeric characters
  - f. An entered loyalty card must be two alpha characters followed by 4 numeric characters.
- 5) Messages explaining validation failures must be easy for a user to understand.

### **Confirmation Page Requirements**

- 1) Details of a successful reservation must be comprehensive and include:
  - a. The room cost for each night of the stay
  - b. The total cost for the stay
  - c. The user's preferences.
  - d. The type of room that has been reserved for them.
  - e. Whether they are having breakfast.
  - f. The cost for breakfast per person
  - g. The total breakfast cost
  - h. The total cost for the reservation
  - i. The reservation number (a random 5 digit number)
- 2) Details of a successful reservation should be well laid out, making it easy for a user to understand.

### **About Us Page Requirements**

The About Us page must contain information about you. This is not a creative part of the project, even though the page should be well laid out and reflect the design of the site. The page must show:

- j. Picture (this should be an actual picture)
- k. Bio (Doesn't have to be real)

### **Other Technical Requirements**

- 1) JavaScript validation and not HTML validation should not be used for the form data.
- 2) Class and element names should be simple, content-relevant, and readable.

- 3) All names should be camel case.
- 4) Your HTML code should be properly formatted (with indentations showing nested elements).
- 5) Your CSS code should be properly formatted (with each rule on a separate line, with rule sets clearly grouped).
- 6) There should be no unused code (i.e. no commented out code or CSS rules that do not refer to anything).
- 7) There should be no CSS in the HTML pages, either as part of the head section or as attributes for specific elements.
- 8) There should be no code errors (signified by red “crinkly” underlines or yellow highlights).

## Presentation

Students are expected to give a 5-10 minute presentation of their project. The presentation should include:

- 1) An explanation of how the student went about doing the project
- 2) An explanation of the structure of the website and code.
- 3) The most challenging part of the project
- 4) The most enjoyable part of the project.
- 5) The most interesting part of the project.
- 6) A demonstration of the site functionality – this should be an actual demonstration rather than powerpoint. The demo should show the interactivity, what happens when some validation fails and when a successful reservation is made.

## Grading Rubric

A passing grade (in the range of 60-69) will be obtained if the site has:

- a) The pages specified in the requirements
- b) A reservation form on the reservations page
- c) Some effective use of JavaScript

A satisfactory grade (in the range 70 – 79) will be obtained if the site has:

- a) All the required pages linked together with relevant content
- b) A clear specialty reflected in some of the design elements
- c) A reservation form on the reservation page
- d) Some of the required validation performed.

- e) The confirmation page being shown if validation is passed.
- f) All class, element and variable names in camel case.

A good grade (in the range of 80-89) will be obtained if the site has:

- a) All required pages linked together with some interactivity beyond the reservation form.
- b) Graphics and text that reflect the specialty and provide a uniform experience.
- c) A reservation form containing all required fields.
- d) Most of the validation performed according to the requirements.
- e) The confirmation page correctly showing most of the required information.
- f) The code well formatted without any errors.
- g) No CSS in the HTML pages.
- h) All class, element and variable names in camel case.

An excellent grade (in the range of 90-100) will be obtained if the site has:

- a) A professional look and feel for the whole site with appropriate graphics and text.
- b) A reservation form that meets all stated requirements
- c) All the validation completed according to the requirements
- d) All the required information accurately shown on the confirmation page
- e) The code documented, as necessary, and well organized without any errors.
- f) The code well-structured using functions appropriately.
- g) All classes, elements and variables with simple, content-relevant, and readable names using camel case.
- h) No CSS in the HTML pages.
- i) Additional elements (either technical or creative) of the student's choosing beyond the stated requirements that demonstrate a commanding knowledge of the course material.