

Assignment Specification

Accommodation Booking System (ABS)

UniTas Pty., Ltd., starts a new online business which connects travellers and accommodation. The company has now decided to develop online accommodation booking system (ABS) which has multiple accommodation venues with multiple hosts.

The ABS has three different types of users:

- Client – a traveller who wants to book accommodation
- Host – a house owner who provides a minimum of one accommodation for ABS
- System Manager – a manager who manages the ABS.

To use the ABS, both client and host must first register into the system by providing their details including name, e-mail address, mobile phone number, password and the postal address. To be registered as a host, a user provides their ABN number as an additional mandatory information.

Details of Assignment 1

Description of Task

Assignment 1 is to design and plan for the web site including Home, Registration, Finding an accommodation, Dashboard for System Manager, Dashboard for Host. In this planning and designing stage, you need to plan for database tables. Further information is in Database Design below.

Home page

This is the starting / entry point to the ABS system which will have:

- Search section to find an accommodation
- A link to a registration page
- Login/out section

For Assignment 1, the login/logout section does not need to authenticate a user (i.e. no database access is required).

Registration page

This is where new users can register to use the system. Proper input validation must be applied at this point including:

- password check – double entry
- Password is
 - 6 to 12 characters in length
 - Contains at least 1 lower case letter, 1 uppercase letter, 1 number and one of following special characters ! @ # \$ %
- Host must enter their ABN number

For Assignment 1, the registration page does not need to store the registration data (i.e. no database access is required).

Finding an accommodation

A client can search the accommodation by specifying the city, check in/out date and the number of guests without login. The client should login if they want to book an accommodation. The system displayed all available houses based on their search condition and also can check the details of the house – price, the number of rooms, the number of bathrooms, smoking allowed, garage, pet friendly, the Internet provided, address, the rate of the house and the rate of the host.

When client searches the accommodation, following validation is required.

- Location of the accommodation is required
- Check in / out date is required
- Number of the guests is required
- Check out date should be after the check in date.

For Assignment 1, you have to display the accommodation list, but it does not need to retrieve data from the database (i.e. no database access is required).

Dashboard for System Manager

This is where the system manager is able to

- edit or remove items in the list of accommodations,
- create, edit or remove the users (hosts and/or customers) in the system as the highest authority, and
- delete the reviews created by the client.

Dashboard for Host

This is where the host creates, edits or removes items in the list of accommodations that will be available for selection by the client to book accommodation. Through the dashboard, the host also can check the review rates. The rates are the mean score on a 0-5 scale which is calculated as: the sum of ratings / total number of reviews.

For Assignment 1, the dashboard for host does not need to store any changes to the list or the items in it (i.e. no database access is required).

Database Design

You are required to design your database tables to complete this assignment. You do not need to create actual tables in the server yet, but you have to present how you are going to make the database tables for Assignment 2. You have to clearly indicate the relationship between different tables using primary key and foreign key in your database design.

To draw your database design, you may use any software such as startUML, word, paint, or etc., but hand-drawn diagrams are equally acceptable.

Appearance of Web site

CSS and Bootstrap is the tools you can use to design your website's look at feel.

Details of Assignment 2

Description of Task

Assignment 2 is your completed project with all the required functionalities. Authentication and most of functions are based on the stored information in database tables: passwords are stored securely in a table, details of accommodation with available types of rooms with any additional information, functional booking system. The site has a review page that any customer may leave their comments on.

Home page

For Assignment 2 the login/logout section needs to authenticate a user.

Registration page

The registration page stores the detailed customer data.

Finding an accommodation

A client can search the accommodation by specifying the city, check in/out date and the number of guests without login. The client should login if they want to book an accommodation. The system displays all available houses based on their search condition and also can check the details of the house – price, the number of rooms, the number of bathrooms, smoking allowed, garage, pet friendly, internet provided, address, the rate of the house and the rate of the host from previous customers.

When client searches for the accommodation, the following validation is required, which you should have already done in assignment 1:

- Location of the accommodation is required
- Check in / out date is required
- Number of the guests is required
- Check out date should be after the check in date.

Each accommodation's detailed data should be retrieved from the database. It only retrieves the available houses based on the client search. For example, the client wants to find the accommodation (e.g. Location: Sydney From: 04/May/2021 To 06/May/2021 guest: 4 people). When the client searches the accommodation, it only retrieves the available accommodation during that specific dates, location and the number of guests allowed. That is, it will display the accommodation which is:

- 1) located in Sydney,
- 2) no booking made during 04-06 May 2021, and
- 3) minimum allowed guest is 4 people.

Booking Process

Once a client finds the accommodation, he can send a booking request to the host. To send a request, the client must register the system first then login to the system for the further process. When the client requests a booking, they can check the check in/out date, the number of guests, and total price, and also requires inputting the guest details – First name, Last name, email address and mobile number. Once all the details are confirmed, the request is sent to the host.

The client can check all the bookings they have made so far and contact the host. The client can cancel the booking only when a host has not confirmed the booking yet / payment has not been made. The payment only can be processed when the booking is confirmed by the host.

Once booking is confirmed by the host, the client can process the next step. In the case of 'rejected', they can see the reason why the booking request has been rejected by the host. In the case of 'accepted', they can process the payment by providing their credit card details and amount they are going to pay and write a review for their stay. [Note: no financial transaction is required in the assignment]

Review page for client

The client can see all the reviews for the accommodation. She can leave her review. She is allowed to edit or delete ONLY her review(s).

Inbox list page for client

The client can see all the messages that she sent to including replies from host.

Dashboard for System Manager

Once the system manager logs in, she can see the dashboard with all information – the number of shared houses, the number of reviews, the number of new requests and a total number of requests, the number of pending on payment and completed payment, and the number of users (hosts, clients and total users).

- House list: The system manager can see all the list of houses, **edit** the details of the house and **delete** the house.
- Booking list: The system manager can see all the booking list with the details (accommodation, check in/out, payment status, booking status). The system manager can **cancel** the booking and **view** reasons if the booking is rejected. A manager also can **contact** the host and client.
- Review list: A manager can see all the reviews and delete the review.
- Inbox list: A manager can see all the message and check whether they have read the message or not.
- User list: A manager can see all the users list and change their access level. The manager also can add new user and delete existing user.

Dashboard for Host

This page can only be accessed by a host. Once a host login to the system, he can see the dashboard which displays all the information – the number of house(s) he shared, the review rate he received, the number of reviews received, total request and the number of new requests. The host also can perform the actions below:

- Manage house: A host can share a new house, edit and delete existing house. When a new house is added, the following information is required: house name, brief description of the house, address, city, price per night, maximum guest numbers, number of rooms, number of bathrooms, check in and out time, whether it is an entire house, whether it has a garage, smoking allowed, internet connection, pet friendly and the image of the house.
- Manage request: A host can see the all the booking request received. He can decide whether he accepts or rejects the request. But the host should give a reason when he rejects the request.

- Review list: A host can see the rates that he received from the clients and their reviews.
- Inbox: A host can see all the message received from the client and can reply back to the corresponding client.

User Account Page

This page can only be accessed while a user is logged in. Here a user can view their account details including the name, email address, mobile, and postal address (and the ABN number for a host). This page will retrieve and update a user's account details as required. A user can change his details in this section and also can change his password.

Planning and Development Consideration

Planning the site

- Plan a site overall in the first place is a crucial step to construct a site. Understand the client's needs and plan accordingly. For example, planning a design theme for the site with variations of the theme that may be used for sub sections is a recommendation.

Develop using the appropriate tools

- HTML 5 for static content
- CSS and Bootstrap for formatting
- JavaScript, Ajax and jQuery for client-side interactivity
- PHP for dynamic content and server-side interactivity
- MySQL for data storage and retrieval.

The files must be organized into sensibly chosen sub-folders (i.e. sub-folder for CSS or sub-folder for images, etc.). All semantic structure of the website is controlled by "HTML". Pay close attention to the elements that you use -make sure that you use the most appropriate element for the kind of text you are marking up. All layout and other details of the appearance of the website are controlled by valid CSS (Cascading Style Sheets) rules. You place the overall CSS rules in an external style sheet. Bootstrap (CDN) is expected. All client-side behaviour of the website (the response to mouse clicking or keyboard reaction) are controlled by valid JavaScript / Ajax / jQuery. All data is stored in the MySQL database (Table design only for Assignment 1).

Default environment: **XAMPP 7.1.15** as the version installed in the lab.

Due Date

Web Site Construction – Phase 1 Prototype (20%) Week 5 Friday 11:58pm

Group based project to plan and design a web site for the required user specification in the given environment. Screen design, interaction design, database design is to be completed. Client-side functionalities with interaction in given programming languages are to be completed with a plan for server-side functions that are to be programmed in the next phase.

Web Site Construction – Phase 2 Final Product (30%) Week 11 Friday 11:58pm

Specified functions are to be fully implemented to industry standard. Fully functional means that the system is not breakable – from any misuse or attack either by malicious intention or not. The comments from the marker from Phase 1 should be addressed in Phase 2.

Reflection report and peer review (10%) Week 13 Friday 11:58pm

Submission Method

XAMPP Submission Information: the details will be available soon.

By submitting this assignment, you will be deemed to have agreed to the following declaration:

I declare that all material in this assignment is my own work except where there is clear acknowledgement or reference to the work of others. I am aware that my assignment may be submitted to plagiarism detection software, and might be retained on its database. I have read and complied with the University statement on Plagiarism and Academic Integrity on the University website at www.utas.edu.au/plagiarism. I will keep a copy of this assignment until results have been finalised.

Marking Information

The rubrics will be available soon.

Late Submission

Late assignments will only be accepted if the proper procedures have been followed as outlined in the School of ICT Policy for [Late Assessment](#). Assignments that are submitted late without Unit Coordinator's approval will be subject to mark penalties as outlined in the [School of ICT Policy for Late Assessment](#). The requests must be accompanied by suitable documentation and should be submitted before the assignment due date.

Plagiarism

Practical assignments are used by the School of ICT for students to both reinforce and demonstrate their understanding of material which has been presented in class. They have a role both for assessment and for learning. It is a requirement that the work you hand in for assessment is substantially your own. Refer to the unit outline for further information.