

# LAB 211 Assignment

Type:  
Code:  
LOC:  
Slot(s):

Long Assignment  
J1.L.P0023  
500  
N/A

## Title

Tour Management

## Background

A travel tourist company requires a comprehensive program to efficiently manage tours and hotel information within their service. The system aims to streamline tour creation, hotel management, customer bookings, and overall tour management.

## Program Specifications

Build a tour management program. With the following basic functions:

### 1. Tour Management

- Create a new tour package
- View and update existing tours
  - Search tours by destination, duration, or price.
  - Edit tour information: modify details, change pricing, or update inclusions/exclusions.
- Delete a tour package
  - Remove a tour from the catalog upon confirmation.

### 2. Hotel Management

- Add new hotels
- Update and manage hotels
- Remove a hotel

### 3. Booking Management

- Customer booking
- View and manage bookings

### 4. Reporting and Analytics

- Generate reports
  - Analyze popular tours, and hotel occupancy.
  - Provide insights on customer preferences and revenue generated.

### 5. Data Management

Each menu choice should invoke an appropriate function to perform the selected menu item. Your program must display the menu after each task and wait for the user to select another option until the user chooses to quit the program.

## Features:

- **Function 1: Create a new tour package - 50 LOC**
  - Collect tour details: tour ID, name, destination, duration, description, price, inclusions, exclusions, etc.
  - Validate input data for completeness and correctness.
  - Add the created tour to the tour catalog.
- **Function 2: View and update existing tours - 50 LOC**
  - Search tours by destination, duration, or price.
  - Edit tour information: modify details, change pricing, or update inclusions/exclusions.
- **Function 3: Delete a tour package - 50 LOC**
  - Remove a tour from the catalog upon confirmation.
- **Function 4: Add new hotels – 50 LOC**
  - Input hotel details: hotel ID, name, location, available rooms, amenities, pricing, etc.
  - Ensure data integrity and uniqueness.
- **Function 5: Update and manage hotels - 50 LOC**
  - Search hotels by location, amenities, or room availability.
  - Modify hotel information: update room availability, change pricing, or edit amenities.
- **Function 6: Remove a hotel - 50 LOC**
  - Delete a hotel from the system after confirmation, considering ongoing bookings.
- **Function 7: Customer booking - 50 LOC**
  - Allow customers to browse tours and hotels.
  - Facilitate tour and hotel bookings: reserve slots and rooms.
  - Validate booking data and ensure availability.
- **Function 8: View and manage bookings - 50 LOC**
  - Display booked tours and hotel reservations.
  - Allow for modifications or cancellations within defined policies.
- **Function 9: Generate reports - 50 LOC**
  - Analyze popular tours, and hotel occupancy.
  - Provide insights on customer preferences and revenue generated.
- **Function 10: Data Management – 50 LOC**
  - Data persistence:
    - Save tour and hotel information to a database (e.g., tour.dat, hotel.dat).
    - Ensure consistent data storage and retrieval.
  - User Interface:

- Create an intuitive and user-friendly interface.
- Incorporate menus and prompts for easy navigation between functionalities.

The above specifications are only basic information; you must perform a requirements analysis step and build the application according to real requirements.

The lecturer will explain the requirement only once in the first slot of the assignment.