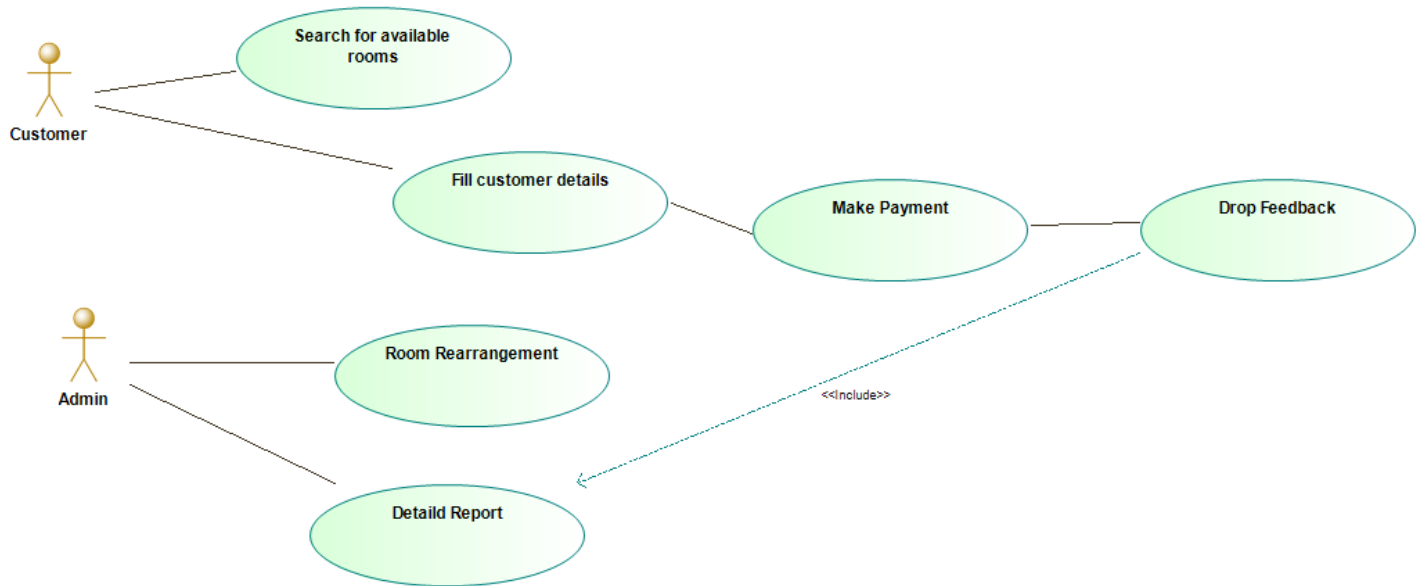


Case study

A hotel wants to introduce a booking system service for its guests. To make their offer is as widely available as possible, they need to implement booking solution allowing customers to browse their information and place orders via check-in kiosk.



The solution needs to support the following functionality.

1. On the admin side:

- Arranging offline system into room categories such Double, Executive, etc.
- Creating reports on the room bookings for a selected period of time.

2. On the customer side:

- Browsing the hotel system with rooms available or booking.
- Making a selection and booking of rooms
- Entering their information as a member or non-member
- Entering payment details and placing the order
- Leaving customer reviews.

Assignment Tasks - Portfolio

Using the above case study, please complete a set of the following interrelated tasks.

Task 1

Visit: www.ersolve.com

How can the system's high-level behaviour be visualised in terms of actors and functions? In your response, use a range of UML use case diagrams.

How can the system's static view be represented in terms of an unambiguous class hierarchy and relationships between the classes? In your response, use a range of UML class and object diagrams.

Task 2

How can the system's dynamic view be represented in terms of key interactions between methods involved in various processes of its functionality? In your response, use a range of UML sequence / activity / state diagrams.

How can essential messages passed between the system's objects be defined? In your response, use a range of UML communication diagrams.

Task 3

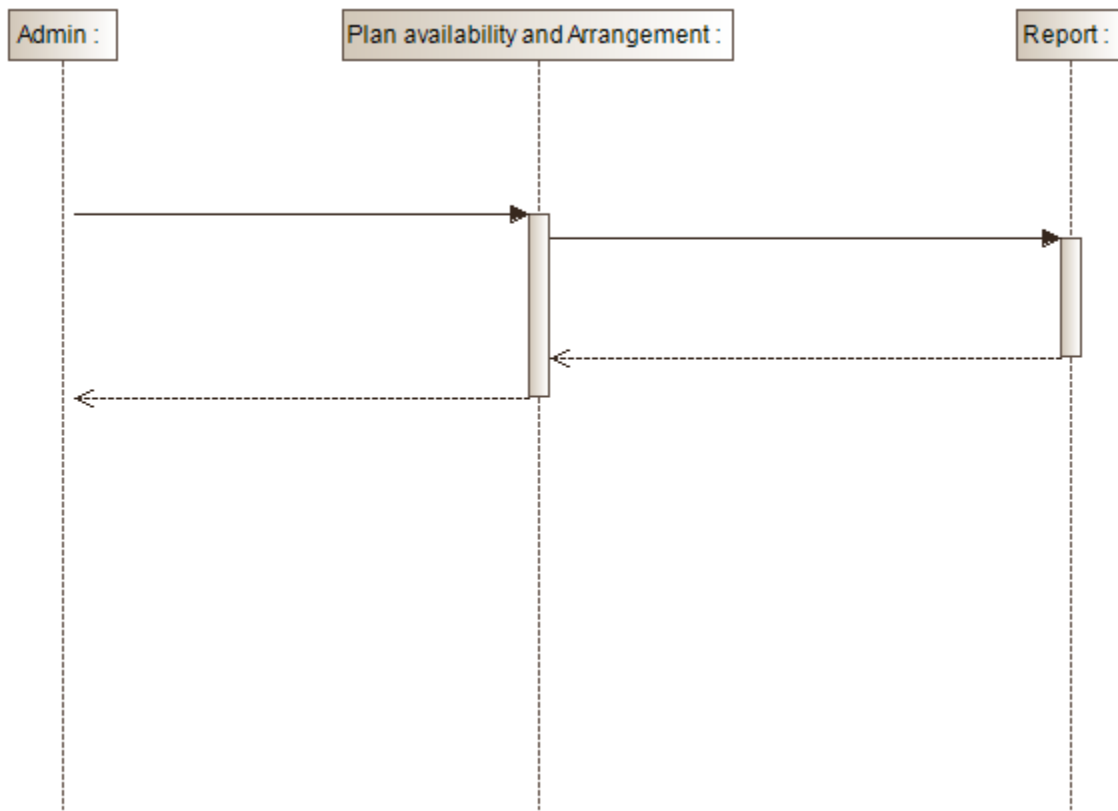
How can the system's functionality be arranged into a set of distributed components and interfaces between them? In your response, use a range of UML component / package / deployment diagrams.

Based on your responses to Tasks 1 - 2, select an example of class hierarchy involving a base class and up to three derived classes, and implement this hierarchy in Java. Up to 30 lines of code maximum.

Task 4

Based on your responses to Tasks 2 - 4, select one example of interaction between various methods of the system's classes, and implement this interaction in Java. Up to 20 lines of code maximum.

Based on your responses to Tasks 2 - 4, select one abstract class and one interface, and implement them in Java. Up to 20 lines of code maximum.



Additional instructions

Responses to all the tasks, including UML diagrams and examples of Java code must be put together and submitted as a single Word document.

Each task involving UML diagrams must be accompanied by a brief critical discussion with references to relevant literature

Each example of Java code must be properly documented using comments.

referenced using the AU Harvard system.

