EXERCISE.NO:1

Draw a UML diagram for hotel reservation system. In a hotel reservation system, a customer can make online booking for a hotel, by specifying the accommodation requirements such as type of room (AC/Non-AC, One bed/two bed), total no of rooms, duration of stay. The system selects a suitable hotel as per customer's requirements. If a hotel is found then the availability of rooms in that hotel is checked. The charges are calculated for the selected requirement and these are acknowledged to the customer. If the customer is satisfactory about the selection made by the system, then he confirms the reservation.

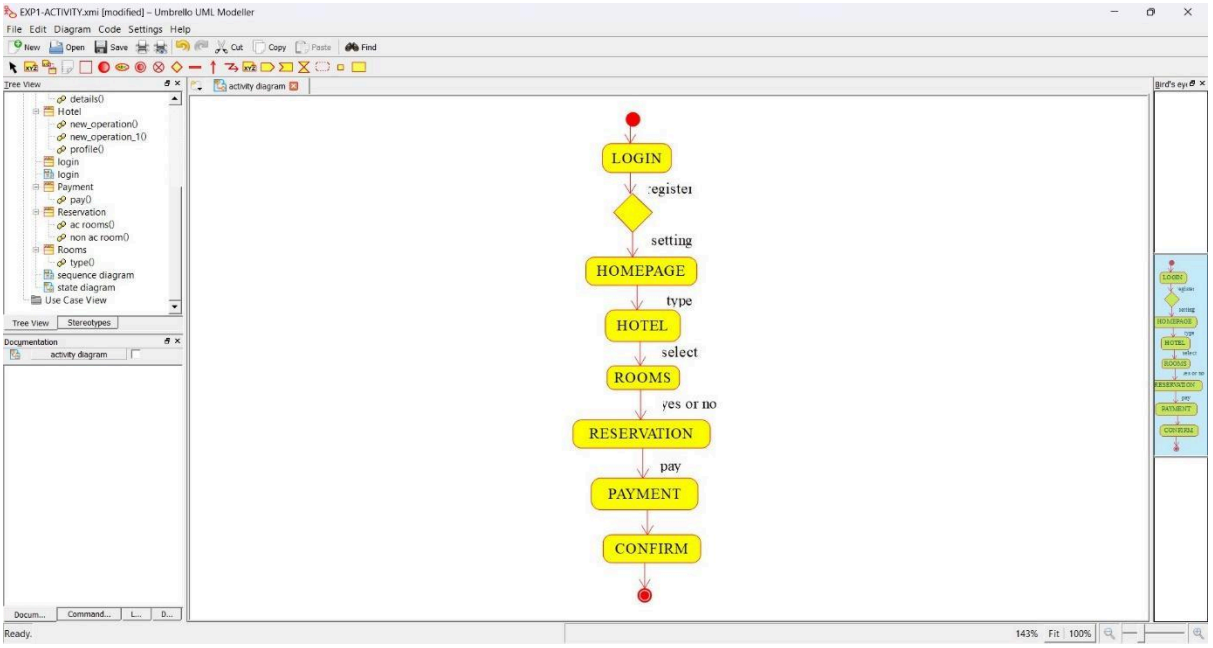
AIM:

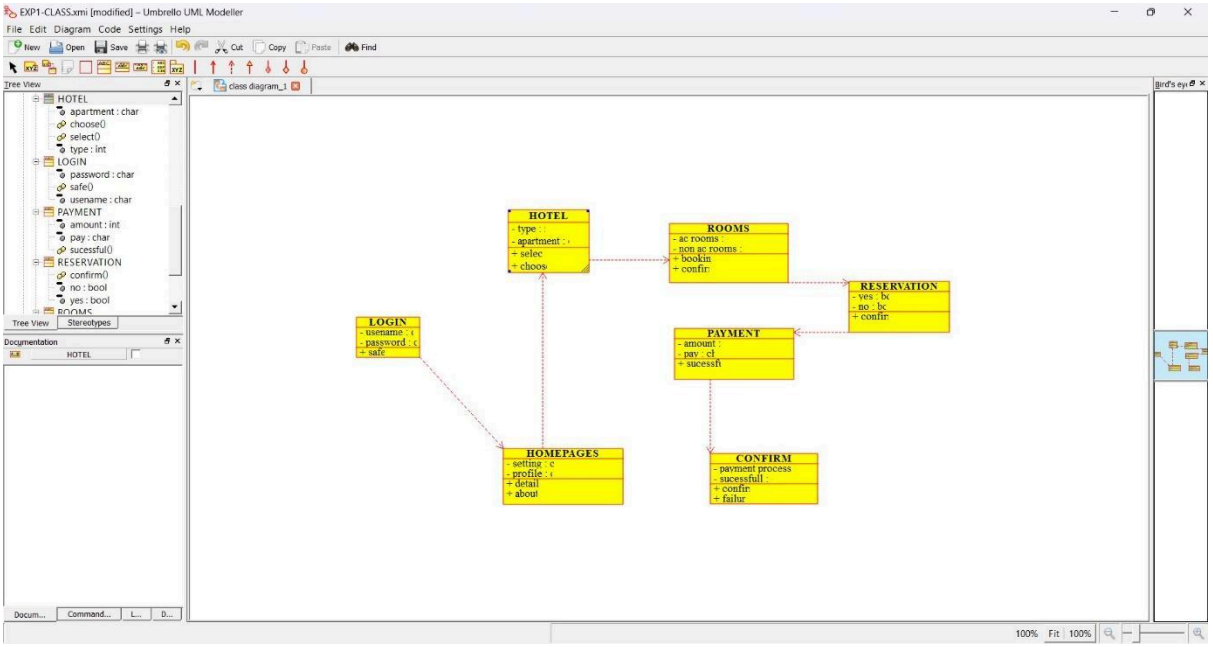
To design and represent a Hotel Reservation System using a UML Class Diagram that captures the core functionalities of the system, including hotel selection, room booking, payment processing, and customer management.

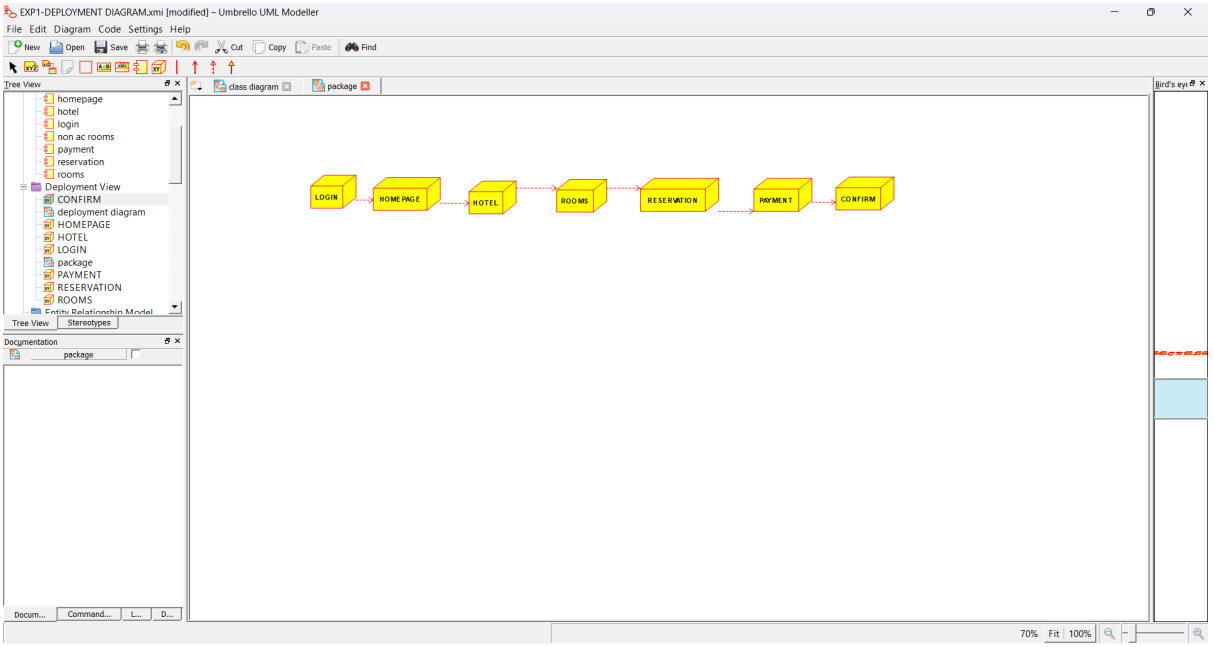
PROCEDURE:

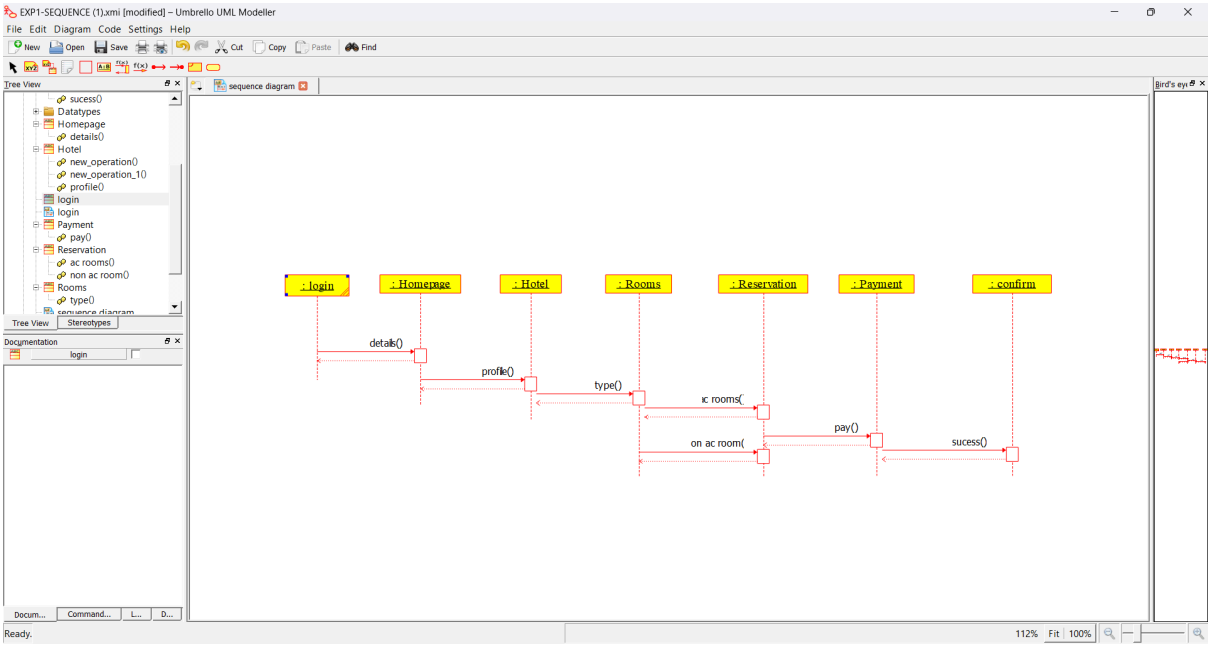
1. Understand the key functionalities, including customer registration, hotel search, room booking, and payment processing.
2. Identify key classes (Customer, Hotel, Room, Booking, and Payment) and define their attributes and methods.
3. Establish relationships between classes using association (e.g., a Customer makes a Booking), aggregation (e.g., a Hotel consists of multiple Rooms), and dependency (e.g., Search depends on Hotel).
4. Design the UML diagram by representing classes with their attributes and methods and drawing appropriate relationships using connectors like association, aggregation, and composition.
5. Review and finalize the UML diagram to ensure it accurately models system requirements and properly defines all interactions.

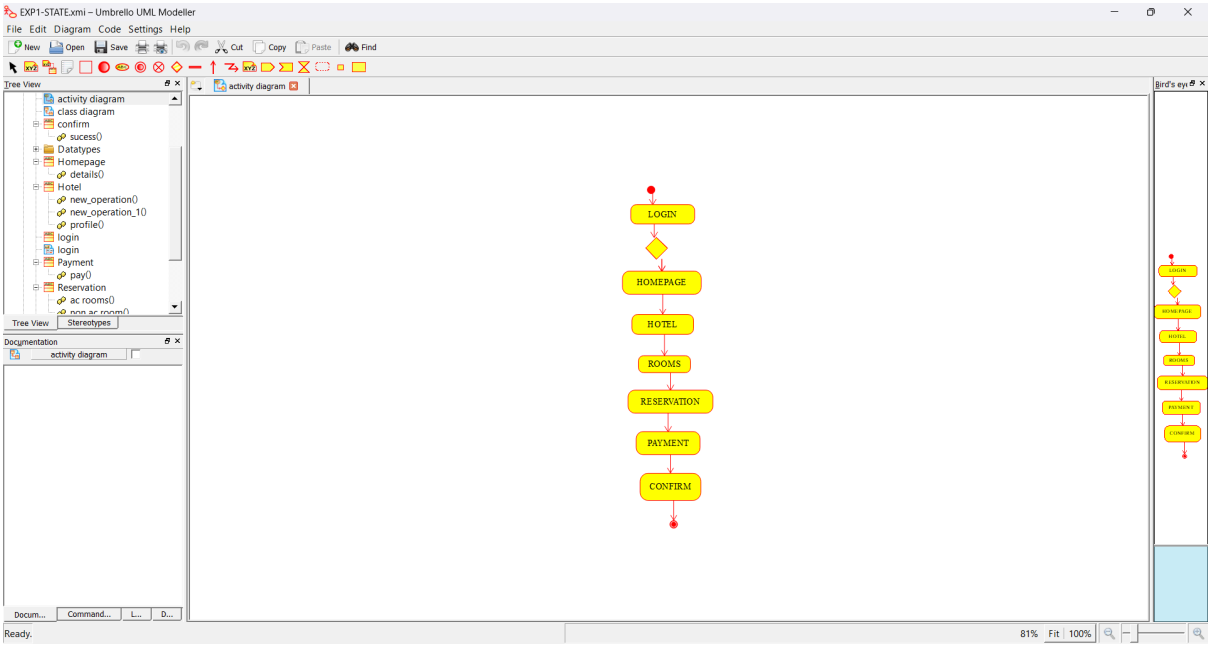
DIAGRAM:

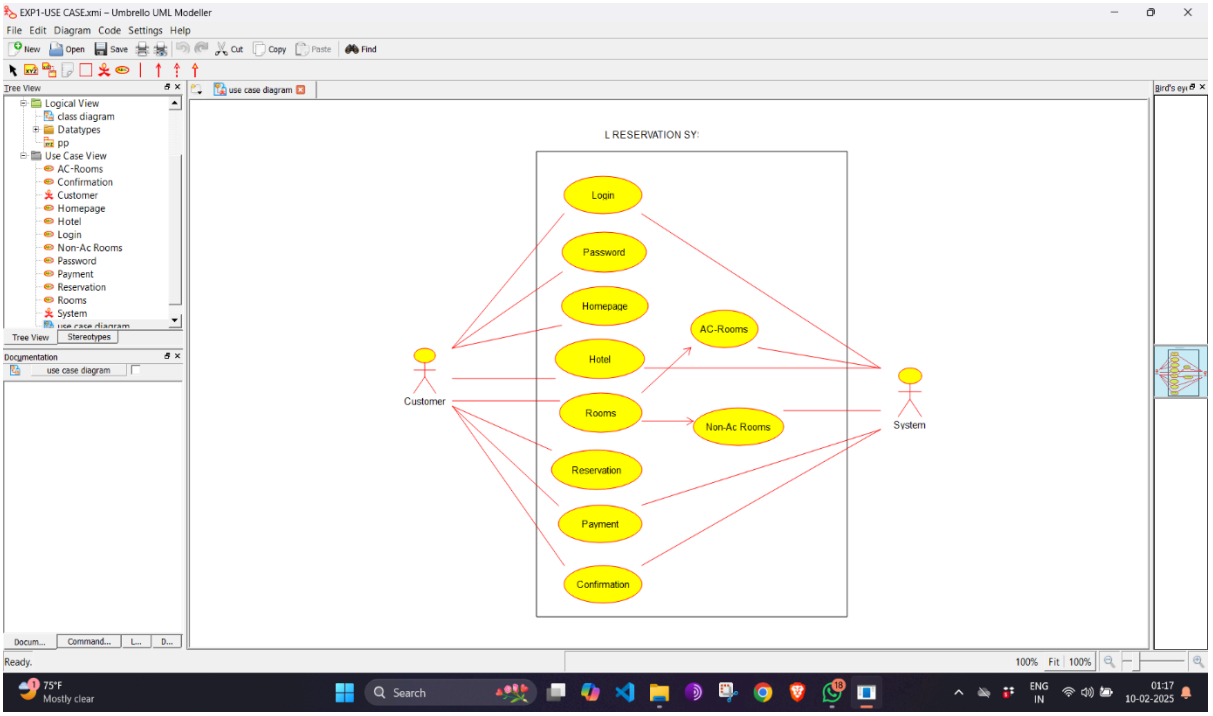

EXP1-ACTIVITY.xmi [modified] – Umbrello UML Modeller
File Edit Diagram Code Settings Help
activity diagram
LOGIN
register
setting
HOMEPAGE
type
HOTEL
select
ROOMS
yes or no
RESERVATION
pay
PAYMENT
CONFIRM
Ready.

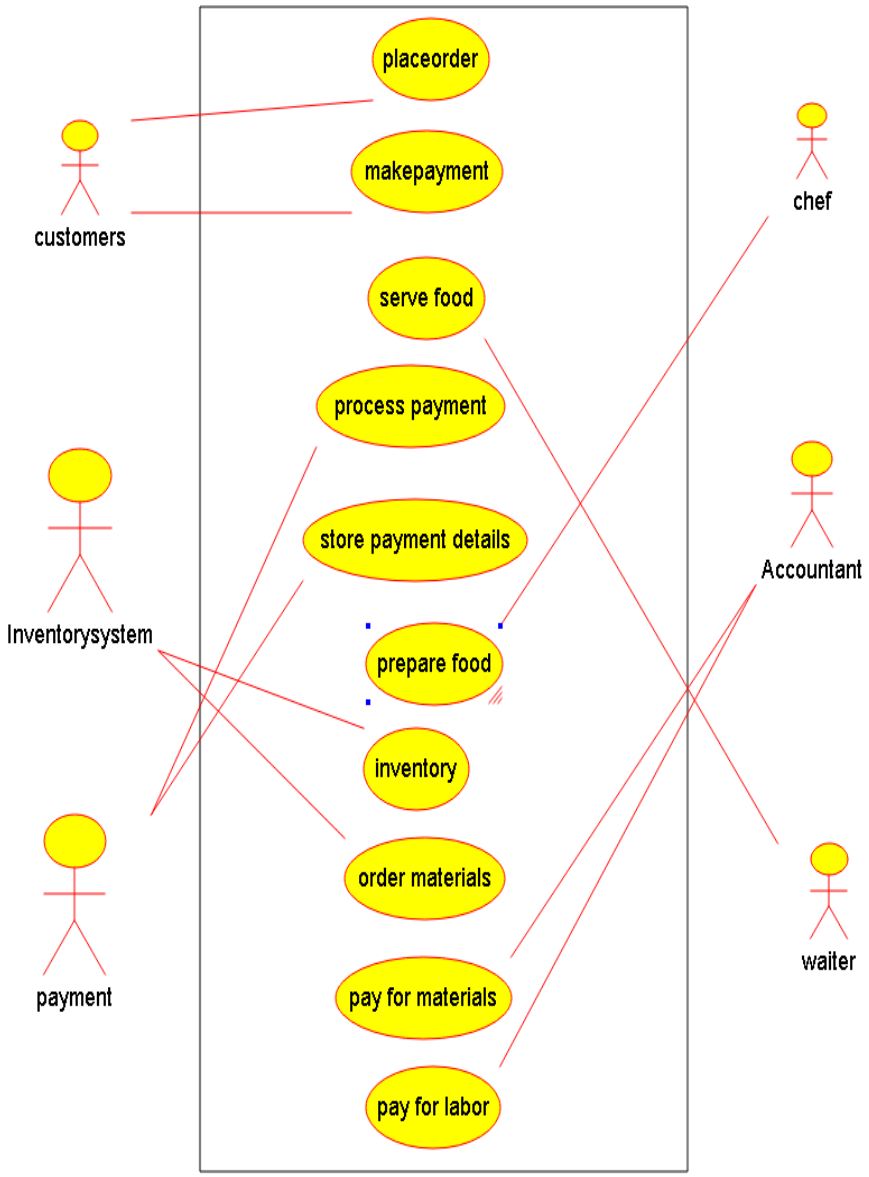

EXP1-CLASS.xmi [modified] – Umbrello UML Modeller
File Edit Diagram Code Settings Help
class diagram_1
HOTEL
- type :
- apartment :
+ selec
+ choos
ROOMS
- ac rooms :
- non ac rooms :
+ bookin
+ confir
RESERVATION
- yes : bc
- no : bc
+ confir
LOGIN
- username : c
- password : c
+ safe
PAYMENT
- amount :
- pay : cl
+ sucessfi
HOMEPAGES
- setting : c
- profile : c
+ detail
+ about
CONFIRM
- payment process
- sucessfull :
+ confir
+ failur


EXP1-DEPLOYMENT DIAGRAM.xmi [modified] – Umbrello UML Modeller
File Edit Diagram Code Settings Help
New Open Save Cut Copy Paste Find
Tree View
homepage
hotel
login
non ac rooms
payment
reservation
rooms
Deployment View
CONFIRM
deployment diagram
HOMEPAGE
HOTEL
LOGIN
package
PAYMENT
RESERVATION
ROOMS
Tree View
Stereotypes
Documentation
package
class diagram
package
Bird's eye
LOGIN
HOMEPAGE
HOTEL
ROOMS
RESERVATION
PAYMENT
CONFIRM
70% Fit 100%


EXP1-SEQUENCE (1).xmi [modified] – Umbrello UML Modeller
File Edit Diagram Code Settings Help
New Open Save Cut Copy Paste Find
Tree View
sucess()
Datatypes
Homepage
details()
Hotel
new_operation()
new_operation_1()
profile()
login
login
Payment
pay()
Reservation
ac rooms()
non ac room()
Rooms
type()
Tree View
Stereotypes
Documentation
login
sequence diagram
Bird's eye
: login
: Homepage
: Hotel
: Rooms
: Reservation
: Payment
: confirm
details()
profile()
type()
ac rooms(
pay()
on ac room(
sucess()
Ready.
112% Fit 100%


EXP1-STATE.xmi – Umbrello UML Modeller
File Edit Diagram Code Settings Help
activity diagram
class diagram
confirm
sucess()
Datatypes
Homepage
details()
Hotel
new_operation()
new_operation_10
profile()
login
login
Payment
pay()
Reservation
ac rooms()
Tree View
Stereotypes
Documentation
activity diagram
LOGIN
HOMEPAGE
HOTEL
ROOMS
RESERVATION
PAYMENT
CONFIRM
Ready.
81%
Fit
100%


EXP1-USE CASE.xmi – Umbrello UML Modeller
File Edit Diagram Code Settings Help
Logical View
class diagram
Datatypes
pp
Use Case View
AC-Rooms
Confirmation
Customer
Homepage
Hotel
Login
Non-Ac Rooms
Password
Payment
Reservation
Rooms
System
use case diagram
L RESERVATION SY:
Login
Password
Homepage
Hotel
Rooms
Reservation
Payment
Confirmation
AC-Rooms
Non-Ac Rooms
Customer
System
Ready.
100%
Fit
100%
75°F
Mostly clear
Search
ENG
IN
01:17
10-02-2025



RESULT:

Thua the UML diagram for hotel reservation system has been implemented successfully.