import java.util.HashMap;

import java.util.Map;

public class ReservationSystem {

private Map<String, Boolean> availability;

public ReservationSystem() {

availability = new HashMap<>();

}

public void initializeAvailability() {

// Initialize the availability for each resource

availability.put("Resource1", true);

availability.put("Resource2", true);

availability.put("Resource3", true);

// Add more resources as needed

}

public void displayAvailability() {

System.out.println("Resource Availability:");

for (Map.Entry<String, Boolean> entry : availability.entrySet()) {

System.out.println(entry.getKey() + ": " + (entry.getValue() ? "Available" : "Unavailable"));

}

}

public void reserveResource(String resource) {

if (availability.containsKey(resource)) {

if (availability.get(resource)) {

availability.put(resource, false);

System.out.println("Reservation for " + resource + " successful.");

} else {

System.out.println("Sorry, " + resource + " is already reserved.");

}

} else {

System.out.println("Invalid resource.");

}

}

public void releaseResource(String resource) {

if (availability.containsKey(resource)) {

if (!availability.get(resource)) {

availability.put(resource, true);

System.out.println("Release of " + resource + " successful.");

} else {

System.out.println("Sorry, " + resource + " is already available.");

}

} else {

System.out.println("Invalid resource.");

}

}

public static void main(String[] args) {

ReservationSystem system = new ReservationSystem();

system.initializeAvailability();

system.displayAvailability();

// Perform reservations and releases

system.reserveResource("Resource1");

system.reserveResource("Resource2");

system.releaseResource("Resource1");

system.reserveResource("Resource1");

system.displayAvailability();

}

}