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import 'dart:io'; void main() { SmartHomeSystem().run(); } class SmartHomeSystem { bool
lightsOn = false; int thermostat = 25; bool securityArmed = false; void toggleLights() { lightsOn
= !lightsOn; print('Lights are ${lightsOn ? 'ON' : 'OFF'}'); } void setThermostat(int temperature)
{ if (temperature < 15 || temperature > 30) { print('Temperature must be between 15°C and
30°C'); return; } thermostat = temperature; print('Thermostat set to $thermostat°C');
showSpecialMessages(thermostat); } void toggleSecurity() { securityArmed = !securityArmed;
print('Security System is ${securityArmed ? 'ARMED' : 'DISARMED'}'); } void displayStatus() {
print('\n====='); print('    SMART    HOME    STATUS');
print('====='); print('Lights:  ${lightsOn ? 'ON' : 'OFF'}');
print('Thermostat:  $thermostat°C'); showSpecialMessages(thermostat); print('Security
System:      ${securityArmed      ?      'ARMED'      :      'DISARMED'}');
print('=====\\n'); } void showSpecialMessages(int temperature) { if
(temperature % 3 == 0 && temperature % 5 == 0) { print('Pick It Do!'); } else if (temperature %
3 == 0) { print('Cool Do?'); } else if (temperature % 5 == 0) { print('Wanna Play?'); } } void run()
{ print('Welcome to Smart Home Automation System!'); print('System initialized with default
values'); print('Lights: OFF | Thermostat: 25°C | Security: DISARMED\\n'); while (true) {
print('Please choose an option:'); print('1. Toggle Lights'); print('2. Adjust Thermostat');
print('3. Toggle Security System'); print('4. View System Status'); print('5. Exit');
stdout.write('Enter your choice (1-5): '); try { final input = stdin.readLineSync(); final choice =
int.tryParse(input ?? ''); switch (choice) { case 1: toggleLights(); break; case 2:
stdout.write('Enter temperature (15-30°C): '); final tempInput = stdin.readLineSync(); final
temperature = int.tryParse(tempInput ?? ''); if (temperature == null) { print('Please enter a
valid number'); } else { setThermostat(temperature); } break; case 3: toggleSecurity(); break;
case 4: displayStatus(); break; case 5: print('\\nThank you for using Smart Home System!');
print('Shutting down...'); return; default: print('Invalid choice. Please enter a number between
1-5'); } } catch (e) { print('An error occurred. Please try again.')} print(''); } } }

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