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import 'dart:io';

void main() {
  const int minTemperature = 15;
  const int maxTemperature = 30;

  bool lightsOn = false;
  int thermostatTemperature = 20;
  bool securityArmed = false;

  print('Welcome to the Smart Home system!');

  while (true) {
    print('\nPlease choose an action:');
    print('1. Toggle lights');
    print('2. Set thermostat temperature');
    print('3. Arm/disarm security system');
    print('4. View system status');
    print('5. Exit');

    String? choice = stdin.readLineSync();

    if (choice == null) {
      print('Invalid choice. Please select a valid option.');
      continue;
    }

    switch (choice) {
      case '1':
```

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lightsOn = !lightsOn;
print('Lights are now ${lightsOn ? "ON" : "OFF"}.');
break;
case '2':
    print('Set thermostat temperature ($minTemperature°C - $maxTemperature°C):');
    String? input = stdin.readLineSync();
    int temperature;

    if (input == null || int.tryParse(input) == null) {
        print('Invalid input. Please enter a number.');
        continue;
    }

    temperature = int.parse(input);
    if (temperature < minTemperature || temperature > maxTemperature) {
        print('Invalid temperature. Please enter a value between $minTemperature and $maxTemperature.');
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} else {

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        thermostatTemperature = temperature;
        print('Thermostat set to $thermostatTemperature°C.');
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}

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break;
case '3':
    securityArmed = !securityArmed;
    print('Security system is now ${securityArmed ? "ARMED" : "DISARMED"}.');
    break;
case '4':
    print('System Status:');
    print('- Lights: ${lightsOn ? "ON" : "OFF"}');
```

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String temperatureStatus = "";
if (thermostatTemperature % 3 == 0 && thermostatTemperature % 5 == 0) {
    temperatureStatus = 'Perfect Day';
} else if (thermostatTemperature % 3 == 0) {
    temperatureStatus = 'Cool Day';
} else if (thermostatTemperature % 5 == 0) {
    temperatureStatus = 'Warm Day';
}

print('- Thermostat: ${thermostatTemperature}°C${temperatureStatus.isNotEmpty ? " - " -
$temperatureStatus" : ""}');

print('- Security System: ${securityArmed ? "ARMED" : "DISARMED"}');

break;

case '5':
    print('Exiting the system. Goodbye!');
    return;

default:
    print('Invalid choice. Please select a valid option.');
}
}
}

```