

Smart Mirror code

```
#include <iostream>

#include <string>

#include <ctime>

#include <cstdlib>

#include <algorithm>


using namespace std;


// Simulating the weather updates
string getWeatherUpdate() {
    return "Sunny, 25°C"; // This would be fetched from a weather API
}


// Simulating news headlines
string getNewsHeadlines() {
    return "1. Major breakthrough in AI technology.\n2. New environmental policies introduced.";
}


// Simulating calendar and reminders
void showCalendarAndReminders() {
    cout << "Today's Events:\n- Meeting at 10 AM\n- Doctor's appointment at 3 PM\n";
}


// Simulating health monitoring
void healthMonitoring() {
    cout << "Blood Pressure: 120/80 mmHg\nHeart Rate: 75 bpm\nRecommended skin care: Use\nsunscreen.\n";
}


// Display live clock and date
void displayDateTime() {
```

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time_t now = time(0);

tm *lrm = localtime(&now);

cout << "Date: " << lrm->tm_mday << "-" << 1 + lrm->tm_mon << "-" << 1900 + lrm->tm_year <<
"\n";

cout << "Time: " << (lrm->tm_hour < 10 ? "0" : "") << lrm->tm_hour << ":"
    << (lrm->tm_min < 10 ? "0" : "") << lrm->tm_min << ":"
    << (lrm->tm_sec < 10 ? "0" : "") << lrm->tm_sec << "\n";
}

```

// Function to convert a string to lowercase

```

string toLowerCase(const string& str) {
    string lowerStr = str;
    transform(lowerStr.begin(), lowerStr.end(), lowerStr.begin(), ::tolower);
    return lowerStr;
}

```

// Function to get a response based on user input

```

string getResponse(const string& input) {
    if (input == "hello" || input == "hi") {
        return "Hello! How can I assist you today?";
    } else if (input == "how are you?") {
        return "I'm just a program, but thanks for asking! How about you?";
    } else if (input == "what is your name?") {
        return "I'm your smart mirror. You can call me smarty!";
    } else if (input == "tell me a joke") {
        return "Why did the scarecrow win an award? Because he was outstanding in his field!";
    } else if (input == "what is the weather like?") {
        return getWeatherUpdate(); // Return current weather
    } else if (input == "tell me a fact") {
        return "Did you know honey never spoils? Archaeologists have found pots of honey in ancient Egyptian tombs that are over 3000 years old!";
    } else if (input == "what is your purpose?") {

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        return "My purpose is to assist you and provide information to the best of my ability!";
    } else if (input == "exit") {
        return "Goodbye! Have a great day!";
    } else {
        return "I'm sorry, I don't understand that. Can you ask something else?";
    }
}

```

```

int main() {
    string userInput;

    cout << "Welcome to the Smart Mirror!\n";

    // Initial display of information
    displayDateTime();
    cout << "Weather Update: " << getWeatherUpdate() << "\n";
    cout << "News Headlines:\n" << getNewsHeadlines() << "\n";
    showCalendarAndReminders();
    healthMonitoring();

    while (true) {
        cout << "\nType your command or ask a question (type 'exit' to quit):\n";
        cout << "> "; // Prompt for input
        getline(cin, userInput); // Get user input
        userInput = toLowerCase(userInput); // Convert input to lowercase

        string response = getResponse(userInput); // Get AI response
        cout << response << endl; // Print response

        if (userInput == "exit") {
            break; // Exit the loop if the user types 'exit'
        }
    }
}

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    }

    cout << "\n-----\n";
}

cout << "Goodbye!\n";

return 0;

}

```

Output:

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Output
/tmp/013mTKobvT.o
Welcome to the Smart Mirror!
Date: 31-10-2024
Time: 14:50:28
Weather Update: Sunny, 25°C
News Headlines:
1. Major breakthrough in AI technology.
2. New environmental policies introduced.
Today's Events:
- Meeting at 10 AM
- Doctor's appointment at 3 PM
Blood Pressure: 120/80 mmHg
Heart Rate: 75 bpm
Recommended skin care: Use sunscreen.

let's ask questions to ai (type 'exit' to quit):
> what is your purpose?
My purpose is to assist you and provide information to the best of my ability!

-----

let's ask questions to ai (type 'exit' to quit):
> exit
Goodbye! Have a great day!
Goodbye!

=== Code Execution Successful ===

```