Chada Tech Clocks Functional Requirements

Problem Statement

Chada Tech has domestic and international clients. To meet international standard ISO 8601, Chada Tech wants their clients to be able to view a 12- and a 24-hour clock on their website rather than just the standard 12-hour clock.

Functional Requirements

1. Clock12: Time should be displayed in 12-hour format where the clock does not exceed 12:59:59.
2. Clock24: Time should be displayed in 24-hour format where the clock does not exceed 23:59:59.
3. Both clocks should display on the screen with the current time in the proper format. For example:

```
**************************     **************************
*       12-Hour Clock    *     *       24-Hour Clock    *
*       03:22:01 P M     *     *        15:22:01        *
**************************     **************************
```

4. Your solution should allow the user to exit the program as well as add one hour, minute, or second to both clocks from a user menu as follows:

```
**************************
* 1 – Add One Hour       *

* 2 – Add One Minute     *

* 3 – Add One Second     *

* 4 – Exit Program       *
**************************
```

5. Once a selection is made from the user menu, the program should take action based on that choice. Both clocks must display on the screen simultaneously in the proper format next to each other. Below is a sample of the expected output if the user selects option 3 from the menu:

```
**************************     **************************
*       12-Hour Clock    *     *       24-Hour Clock    *
*       03:22:02 P M     *     *        15:22:02        *
**************************     **************************
```