CelerSMS AT Emulator Assignment - Task 9: Automation

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Task 9: Automation of AT Commands Using Auto-Hotkey

This section demonstrates the automation of AT command execution in the CelerSMS AT Emulator using **AutoHotkey (AHK)**, a lightweight automation scripting tool for Windows.

Objective

Automate the following AT commands using keyboard macros:

- `AT`
- `ATI`
- `AT+CSQ`
- `AT+CPIN?`

1. Tool Used

- AutoHotkey v1.1.36
- Windows 10
- CelerSMS AT Emulator (https://www.celersms.com/at-emulator.htm)

2. AHK Script File (test_macro.ahk)

Listing 1: AHK script to simulate AT command sequence

```
^j:: ; Ctrl + J triggers the command sequence
Send AT{Enter}
Sleep 1000
Send ATI{Enter}
```

```
Sleep 1000
Send AT+CSQ{Enter}
Sleep 1000
Send AT+CPIN?{Enter}
return
```

3. Execution Steps

1. Open the CelerSMS AT Emulator in a browser.

2. Run the script by double-clicking `test_macro.ahk`.

3. Focus the emulator input area.

4. Press `Ctrl + J`.

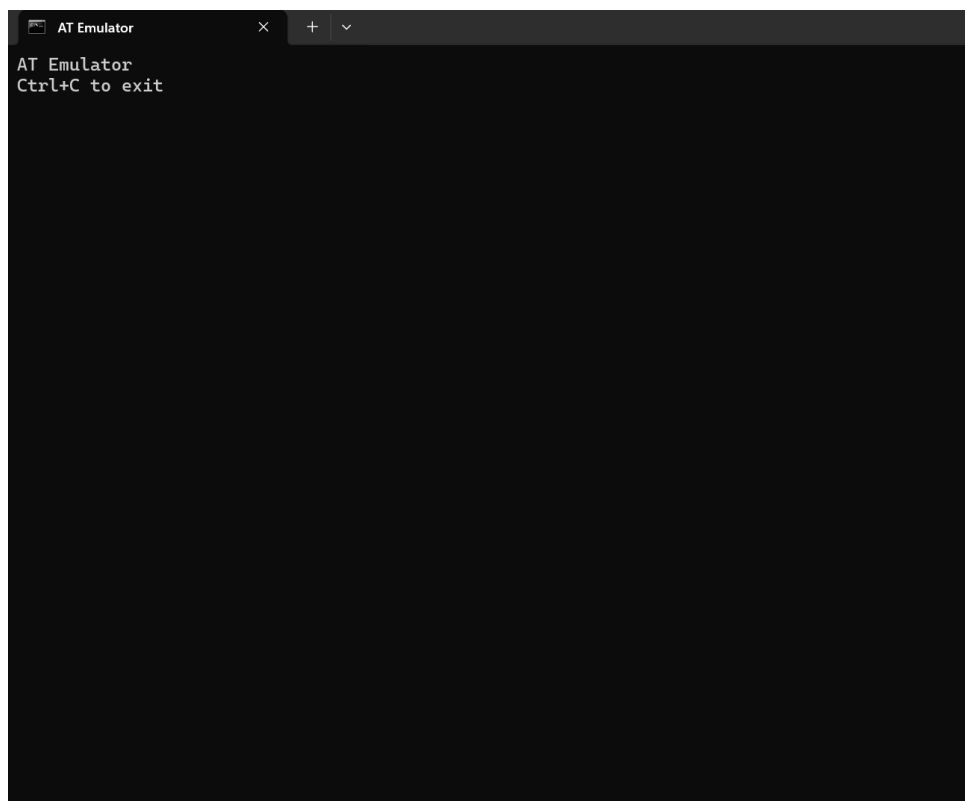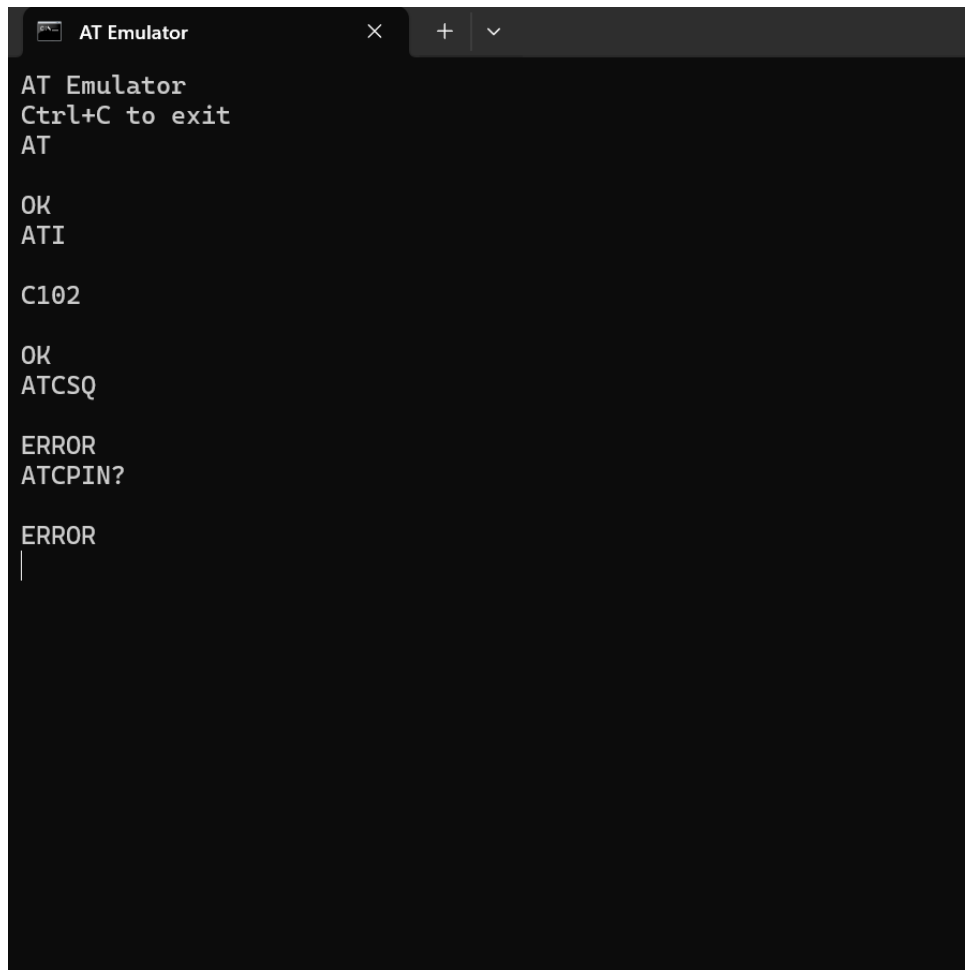5. The commands are automatically sent with delays in between.

4. Screenshots

Figure 1: Emulator ready before automation begins

Figure 2: Command sequence successfully executed using AHK

5. Notes

- The emulator must be the active window for AHK to work correctly.

- Delay intervals may be adjusted based on system speed or emulator latency.

- This approach is useful for demo/testing where API-level scripting is unavailable.

6. Conclusion

While the CelerSMS AT Emulator lacks a built-in scripting interface, automation is achievable using external tools like AutoHotkey. This method simulates a real-world AT testing script and is useful for repetitive test workflows or training.