

Assignment 7: Error Simulation & Debugging

Objective:

Simulate different AT command errors and interpret the error codes returned by the emulator. Understand the use of AT+CMEE=2 for enabling verbose error reporting.

Step 1: Enable Verbose Error Reporting

Command:

AT+CMEE=2

Expected Response:

OK

Actual Response (CelerSMS Emulator):

ERROR

Interpretation:

The CelerSMS AT Emulator does not support AT+CMEE=2. Therefore, it does not provide verbose error messages by default.

Step 2: Error Testing Using Invalid Commands

Command	Actual Response	Error Code	Interpretation
AT+ABC	+CME ERROR: 4	4	Operation not supported
AT+CMGF=3	+CME ERROR: 3	3	Operation not allowed (Only 0 or 1 are valid)
AT+CMGS	+CME ERROR: 50	50	Incorrect parameters or incomplete syntax
AT+XYZ123	+CME ERROR: 100	100	Unknown error / command not recognized

Conclusion:

Even though AT+CMEE=2 is not supported in CelerSMS, the emulator still returns basic error codes with +CME ERROR: prefix for unsupported or incorrect commands. These codes help identify the type of mistake made and are useful for debugging AT command implementations.

Recommendation:

In real modems (e.g., Cavli, Quectel), always use AT+CMEE=2 to get descriptive errors during development and testing.

Outputs

AT Emulator
Ctrl+C to exit
AT+CMEE=2

ERROR