**Name:** Pranavakumar Murali          **Roll No.:** 04

**Code:**

```python
import re

log_data = """
[2025-02-10 14:23:01] [INFO] [Auth_Module] User login successful.
[2025-02-10 15:45:32] [ERROR] [Net_Module] Connection timeout from 192.168.1.10. Error Code: 0xAB12CD34
[2025-02-10 16:01:10] [WARN] [Disk_Module] Low disk space warning.
[2025-02-10 17:12:05] [ERROR] [Security_Module] Unauthorized access detected from 10.0.0.5. Error Code: 0xDEADBEEF
"""

# Used regex101 tool for identifying the pattern
pattern = r"\[(\d{4}-\d\d-\d\d \d\d:\d\d:\d\d)\] \[ERROR\] \[(.+)\] (\D+[\d{1,}.]+ \D+0x[0-9a-fA-F]{8})"

def extract_critical_errors(log_data: str) -> list[tuple]:
    matches = re.findall(pattern, log_data)
    return matches

result = extract_critical_errors(log_data)
print(result)
```

**Output:**

```
[('2025-02-10 15:45:32', 'Net_Module', 'Connection timeout from 192.168.1.10. Error Code: 0xAB12CD34'),
 ('2025-02-10 17:12:05', 'Security_Module', 'Unauthorized access detected from 10.0.0.5. Error Code: 0xDEADBEEF')]
```