**Support Engineer Coding Challenge**

**Scenario:**

Your team maintains a script that automates the creation of user accounts from a CSV file. A customer reported that new users are not being created correctly. You’ve been assigned to debug and fix the script.

**Challenge Details**

**Problem Statement:**

* The script reads user data from a CSV file (users.csv) and creates users in a mock system by sending HTTP POST requests to an API endpoint.
* The customer provided a sample CSV file and mentioned two issues:
  1. Some user accounts are not created.
  2. The error log is empty even when the script fails.

**Tasks:**

1. **Debug the Script:**  
   Identify and fix the issues in the provided Python script.
2. **Add Features:**
   * Improve error handling so that failed user creations are logged in a file (error\_log.txt).
   * Add a feature to skip rows with missing required fields (e.g., email).
3. **Optimize:**
   * Improve the script’s readability and maintainability using best practices (e.g., modular functions, comments).

**Deliverables:**

1. The updated Python script with the issues fixed and features added.
2. A brief explanation (text or comments in the script) of the changes you made.
3. Optional: Suggestions for improving the script further, if any.

**Evaluation Criteria:**

* **Debugging:** Ability to identify and resolve errors in the script.
* **Coding Skills:** Writing clean, efficient, and maintainable code.
* **Error Handling:** Properly logging errors and managing edge cases.
* **Problem-Solving:** Addressing the requirements and suggesting improvements.

**Sample users.csv   
  
name,email,role  
Alice,**[**alice@example.com**](mailto:alice@example.com)**,admin  
Bob,,user  
Charlie,**[**charlie@example.com**](mailto:charlie@example.com)**,moderator**

**Initial python script**  
  
import csv  
import requests  
  
def create\_users(file\_path):  
 with open(file\_path, 'r') as f:  
 reader = csv.DictReader(f)  
 for row in reader:  
 response = requests.post("[https://example.com/api/create\_user](https://url.uk.m.mimecastprotect.com/s/lYTWCz745sNl54zJFXhoS9HZ65?domain=example.com)", json=row)  
 if response.status\_code != 201:  
 print("Error creating user:", row["email"])  
  
create\_users("users.csv")