Challenge 8: Regex Email Extractor in Python

Problem Statement: Develop a Python program that extracts email addresses from a given text input. The program should utilize regular expressions to accurately identify and extract email addresses, adhering to the standard email format. The extracted email addresses should be printed as output.

Requirements:

1. **The program should accept a text input containing one or more email addresses.**
2. **It should accurately identify and extract email addresses from the text input using regular expressions.**
3. **The program should output the extracted email addresses, each on a separate line.**
4. **The extracted email addresses should adhere to the standard email format, including the username, domain name, and top-level domain (TLD) parts.**
5. **The program should handle cases where multiple email addresses are present in the text input.**

Example: Input:

```
Contact us at support@example.com or sales@example.com for assistance.
You can also reach us at info@example.com.
```

Output:

```graphql
support@example.com
sales@example.com
info@example.com
```

Constraints:

- **The input text may contain alphanumeric characters, special characters, and whitespace.**
- **The program should handle email addresses with different domain names and TLDs, including both generic and country-specific domains.**
- **The program should not extract email addresses that do not conform to the standard email format.**

CODE:

```python
import re

def extract_emails(text):
    # Regular expression pattern to match email addresses
    pattern = r'\b[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Z|a-z]{2,}\b'

    # Find all email addresses in the text
    emails = re.findall(pattern, text)

    return emails
```

```python
# Sample text containing email addresses
text = """
Contact us at support@example.com or
sales@example.com for assistance.
You can also reach us at info@example.com.
"""

# Extract email addresses from the text
extracted_emails = extract_emails(text)

# Print the extracted email addresses
print("Extracted Email Addresses:")
for email in extracted_emails:
    print(email)
```

Output:

```
C:\Users\saksh\PycharmProjects\pythonProject\.venv\Scripts\python.exe C:\Users\saksh\PycharmProjects\pythonProject\45.py
Extracted Email Addresses:
support@example.com
sales@example.com
info@example.com
```