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IT0011 – TW23

Practical Exam 1

Source Code:

```python
import re
from collections import Counter

def filter_and_count_words(text):
    exclude_words = {"and", "but", "or", "nor", "for", "so", "yet", "a", "an", "the", "of"}
    words = re.findall(r'\b[A-Za-z]+\b', text)
    filtered_words = [word for word in words if word.lower() not in exclude_words]

    word_counts = Counter(filtered_words)
    lower_case_words = sorted([word for word in word_counts if word.islower()])
    upper_case_words = sorted([word for word in word_counts if word[0].isupper()])

    print("\nFiltered Word Counts:")
    for word in lower_case_words + upper_case_words:
        print(f"{word:<10} - {word_counts[word]}")

    print("\nTotal words filtered:", sum(word_counts.values()))

text = input("Enter a string statement:\n")
filter_and_count_words(text)
```

Result:

```
PS C:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan> python -u "c:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan\PE1\CortanPE1.py"
Enter a string statement:
The quick brown fox jumps over the lazy dog near the bank of the river the Quick Brown Fox Jumps Over The Lazy Dog Near The Bank Of The River The quick brown fox jumps over the lazy dog near the bank of the river the Q
uick Brown Fox Jumps Over The Lazy Dog Near The Top Of The River The slow Brown fox jumps over the lazy dog near the bank of the river the Fast Brown Fox Jumps Over The Lazy Cat near The Bank Of The River The quick bro
wn fox jumps over the Good Cat near the bank of the river the Quick Brown Fox Jumps Over The Lazy Dog Near The Bank Of The Mountain

Filtered Word Counts:
bank       - 4
brown      - 3
dog        - 3
fox        - 4
jumps      - 4
lazy       - 3
near       - 5
over       - 4
quick      - 3
river      - 4
slow       - 1
Bank       - 3
Brown      - 5
Cat        - 2
Dog        - 3
Fast       - 1
Fox        - 4
Good       - 1
Jumps      - 4
Lazy       - 4
Mountain   - 1
Near       - 3
Over       - 4
Quick      - 3
River      - 3
Top        - 1

Total words filtered: 80
PS C:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan>
```