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Solution

Here are Python solutions for each of the problems you've listed:

### 1. Reverse words in a given String in Python

```python

def reverse\_words(sentence):

words = sentence.split() # Split the sentence into words

reversed\_sentence = ' '.join(reversed(words)) # Reverse the list of words and join them back into a string

return reversed\_sentence

# Example

sentence = "Hello World"

print(reverse\_words(sentence)) # Output: "World Hello"

```

### 2. Ways to remove the i’th character from a string in Python

```python

def remove\_ith\_char(string, i):

# Method 1: Slicing

return string[:i] + string[i+1:]

# Example

string = "Hello"

i = 2

print(remove\_ith\_char(string, i)) # Output: "Helo"

```

### 3. Python | Check if a Substring is Present in a Given String

```python

def is\_substring\_present(string, substring):

return substring in string

# Example

string = "Hello World"

substring = "World"

print(is\_substring\_present(string, substring)) # Output: True

```

### 4. Python – Words Frequency in String Shorthands

```python

from collections import Counter

def word\_frequency(string):

words = string.split() # Split the string into words

return Counter(words) # Count the frequency of each word

# Example

string = "hello hello world"

print(word\_frequency(string)) # Output: Counter({'hello': 2, 'world': 1})

```

### 5. Python – Convert Snake case to Pascal case

```python

def snake\_to\_pascal(snake\_str):

return ''.join(word.capitalize() for word in snake\_str.split('\_'))

# Example

snake\_str = "this\_is\_snake\_case"

print(snake\_to\_pascal(snake\_str)) # Output: "ThisIsSnakeCase"

```

### 6. Find length of a string in Python (4 ways)

```python

string = "Hello World"

# Method 1: Using len() function

length\_1 = len(string)

# Method 2: Using a loop

length\_2 = sum(1 for \_ in string)

# Method 3: Using recursion

def recursive\_length(s):

if s == "":

return 0

else:

return 1 + recursive\_length(s[1:])

length\_3 = recursive\_length(string)

# Method 4: Using join and count

length\_4 = ''.join(string).count('') - 1

print(length\_1, length\_2, length\_3, length\_4)

# Output: 11 11 11 11

```

### 7. Python program to print even length words in a string

```python

def print\_even\_length\_words(sentence):

words = sentence.split()

for word in words:

if len(word) % 2 == 0:

print(word)

# Example

sentence = "This is a test"

print\_even\_length\_words(sentence) # Output: "This is test"

```

### 8. Python program to accept the strings which contain all vowels

```python

def contains\_all\_vowels(string):

vowels = set("aeiou")

return vowels <= set(string.lower())

# Example

string = "education"

print(contains\_all\_vowels(string)) # Output: True

```

### 9. Python | Count the Number of matching characters in a pair of strings

```python

def count\_matching\_characters(str1, str2):

set1 = set(str1)

set2 = set(str2)

return len(set1 & set2)

# Example

str1 = "apple"

str2 = "grape"

print(count\_matching\_characters(str1, str2)) # Output: 3

```

### 10. Remove all duplicates from a given string in Python

```python

def remove\_duplicates(string):

result = []

seen = set()

for char in string:

if char not in seen:

seen.add(char)

result.append(char)

return ''.join(result)

# Example

string = "hello"

print(remove\_duplicates(string)) # Output: "helo"

```

These solutions cover various common string manipulation tasks in Python.