***** PYTHON PROGRAM — Date: 17-Oct-2025 *****

[Q1] Write a Python program to remove duplicate words from a given sentence while keeping the order of words the same.

```
sentence = input("Enter a sentence: ")
words = sentence.split()
unique_words = []
for word in words:
   if word not in unique_words:
      unique_words.append(word)
result = " ".join(unique_words)
print("Sentence after removing duplicates:")
print(result)
```

Example:

Input: "python is great and python is fun"

Output: "python is great and fun"

[Q2] Given a sentence, find and display all the words that are palindromes(same forward and backward)

```
sentence = input("Enter a sentence: ")
words = sentence.split()
palindromes = []
for word in words:
   if word.lower() == word[::-1].lower():   # Check palindrome ignoring case
      palindromes.append(word)
if palindromes:
   print("Palindrome words found:")
   for p in palindromes:
      print(p)
else:
   print("No palindrome words found.")
```

Example

Input: "Madam goes to level civic center"

Output:

Palindrome words found:

Madam

level

civic

[Q3] Write a program that takes a sentence and returnes a list of words sorted by their length (shortest first)

```
sentence = input("Enter a sentence: ")
words = sentence.split()
sorted_words = sorted(words, key=len)
print("Words sorted by length:")
print(sorted_words)
```

Example:

Input: "Python is fun and interesting"

Output: ['is', 'fun', 'and', 'Python', 'interesting']

[Q4] Write a program to reverse every word in a given sentence, but keep the order of words unchanged.

```
sentence = input("Enter a sentence: ")
words = sentence.split()
reversed_words = [word[::-1] for word in words]
result = "  ".join(reversed_words)
print("Sentence with reversed words:")
print(result)
```

Example:

Input: "Python programming is fun"

Output: "nohtyP gnimmargorp si nuf"

[Q5] Write a program to marge two lists of words, remove duplicates, and return a single sorted list.

```
list1 = input("Enter first list of words (space separated): ").split()
list2 = input("Enter second list of words (space separated): ").split()
merged_list = list1 + list2
unique_words = list(set(merged_list))
sorted_list = sorted(unique_words)
print("Final sorted list without duplicates:")
print(sorted_list)
```

Example:

Input:

List1: apple banana mango

List2: banana cherry apple grapes

Output:

['apple', 'banana', 'cherry', 'grapes', 'mango']