# I. Basic Case Conversion (Lower to Upper and Vice-Versa)

## Test 1: Simple Lowercase to Uppercase:

Input: "αβγδεζηθικλμνξοπρστυφχψω"

Expected Output (Uppercase): "AB $\Gamma\Delta$ EZH $\Theta$ IK $\Lambda$ M $\Sigma$ O $\Pi$ P $\Sigma$ T $\Upsilon$  $\Phi$ X $\Psi$  $\Omega$ "

Purpose: Check the basic lowercase to uppercase conversion for all letters.

#### **OTpanel**

Output: ABΓ $\Delta$ EZH $\Theta$ IK $\Lambda$ MN $\Xi$ OΠΡ $\Sigma$ ΤΥ $\Phi$ X $\Psi$  $\Omega$ (no language selected) Output: ABΓ $\Delta$ EZH $\Theta$ IK $\Lambda$ MN $\Xi$ OΠΡ $\Sigma$ ΤΥ $\Phi$ X $\Psi$  $\Omega$ (language Greek activated)

#### TypeMenu

Output: AB $\Gamma\Delta$ EZH $\Theta$ IK $\Lambda$ MN $\Xi$ O $\Pi$ P $\Sigma$ TY $\Phi$ X $\Psi\Omega$ (no language selected) Output: AB $\Gamma\Delta$ EZH $\Theta$ IK $\Lambda$ MN $\Xi$ O $\Pi$ P $\Sigma$ TY $\Phi$ X $\Psi\Omega$ (language Greek activated)

### Test 2: Simple Uppercase to Lowercase:

Input: "ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ"

Expected Output (Lowercase): "αβγδεζηθικλμνξοπρστυφχψω"

Purpose: Check the basic uppercase to lowercase conversion for all letters.

#### OTpanel

Output: AB $\Gamma\Delta$ EZH $\Theta$ IK $\Lambda$ MN $\Xi$ O $\Pi$ P $\Sigma$ TY $\Phi$ X $\Psi\Omega$ (no language selected) Output: AB $\Gamma\Delta$ EZH $\Theta$ IK $\Lambda$ MN $\Xi$ O $\Pi$ P $\Sigma$ TY $\Phi$ X $\Psi\Omega$ (language Greek activated)

#### TypeMenu

Output: αβγδεζηθικλμνξοπροτυφχψω(no language selected)
Output: αβγδεζηθικλμνξοπροτυφχψω(language Greek activated)

#### Test 3: Mixed Case:

Input: "ΑβΓδΕζΗθΙκΛμΝξΟπΡσΤυΦχΨω"

Expected Output (Uppercase): "ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ" Expected Output (Lowercase): "αβγδεζηθικλμνξοπρστυφχψω" Purpose: Test mixed input to both all caps and all lowercase.

## **OTpanel**

Output (Uppercase): AΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(no language selected) Output (Lowercase): AβΓδΕζΗθΙκΛμΝξΟπΡσΤυΦχΨω(no language selected) Output (Uppercase): AΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(language Greek activated) Output (Lowercase): AβΓδΕζΗθΙκΛμΝξΟπΡσΤυΦχΨω(language Greek activated)

# TypeMenu

Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(no language selected) Output (Lowercase): αβγδεζηθικλμνξοπρστυφχψω(no language selected)

Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(language Greek activated)
Output (Lowercase): αβγδεζηθικλμνξοπρστυφχψω(language Greek activated)

# II. Sigma Handling (Final vs. Non-Final)

# Test 4: Non-Final Sigma to Uppercase (Simple Word):

Input: "συνάδελφος"

Expected Output (Uppercase): "ΣΥΝΑΔΕΛΦΟΣ"

Purpose: Check the ' $\sigma$ ' to ' $\Sigma$ ' conversion in a word with no final sigma.

#### **OTpane**

Output:  $\Sigma YNA\Delta E \Lambda \Phi O \Sigma$  (no language selected) Output:  $\Sigma YNA\Delta E \Lambda \Phi O \Sigma$  (language Greek activated)

# TypeMenu

Output:  $\Sigma YNA\Delta E \Lambda \Phi O \Sigma$  (no language selected)
Output:  $\Sigma YNA\Delta E \Lambda \Phi O \Sigma$  (language Greek activated)

#### Test 5: Final Sigma to Uppercase in multi-word string:

Input: "Ένας καλός κόσμος είναι εδώ"

Expected Output (Uppercase): "ENA $\Sigma$  KA $\Lambda$ O $\Sigma$  KO $\Sigma$ MO $\Sigma$  EINAI E $\Delta$  $\Omega$ "

Purpose: Test sigma conversion when it is at the end of a word inside a string of words.

**OTpanel** 

Output: ΈΝΑΣ ΚΑΛΌΣ ΚΌΣΜΟΣ ΕΊΝΑΙ ΕΔΏ (no language selected)
Output: ΕΝΑΣ ΚΑΛΟΣ ΚΟΣΜΟΣ ΕΊΝΑΙ ΕΔΩ (language Greek activated)

TypeMenu

Output: ΈΝΑΣ ΚΑΛΌΣ ΚΌΣΜΟΣ ΕΊΝΑΙ ΕΔΏ (no language selected) Output: ΕΝΑΣ ΚΑΛΟΣ ΚΟΣΜΟΣ ΕΊΝΑΙ ΕΔΩ (language Greek activated)

# Test 6: Final Sigma to Lowercase:

Input: "ΣΑΣ"

Expected Output (Lowercase): "σας"

Purpose: Test that uppercase sigma converts back to lowercase final sigma if in the last letter of the word.

OTpanel

Output: ΣΑΣ (no language selected)
Output: ΣΑΣ (language Greek activated)

TypeMenu

Output:  $\sigma\alpha\varsigma$  (no language selected) Output:  $\sigma\alpha\varsigma$  (language Greek activated)

# Test 7: Multiple Sigmas in a Word (Mixed Cases):

Input: "Συσσωματώσεις"

Expected Output (Uppercase): "ΣΥΣΣΩΜΑΤΩΣΕΙΣ" Expected Output (Lowercase): "συσσωματώσεις"

Purpose: Verify handling of multiple sigmas, in particular in lowercase.

**OTpanel** 

Output (Uppercase): ΣΥΣΣΩΜΑΤΩΣΕΙΣ (no language selected)
Output (Lowercase): Συσσωματώσεις (no language selected)
Output (Uppercase): ΣΥΣΣΩΜΑΤΩΣΕΙΣ (language Greek activated)
Output (Lowercase): Συσσωματώσεις (language Greek activated)

TypeMenu

Output (Uppercase): ΣΥΣΣΩΜΑΤΩΣΕΙΣ (no language selected)
Output (Lowercase): συσσωματώσεις (no language selected)
Output (Uppercase): ΣΥΣΣΩΜΑΤΩΣΕΙΣ (language Greek activated)
Output (Lowercase): συσσωματώσεις (language Greek activated)

## Test 8: Final Sigma Before a Punctuation:

Input: "Ο καιρός ήταν καλός."

Expected Output (Uppercase): "Ο ΚΑΙΡΟΣ ΗΤΑΝ ΚΑΛΟΣ."

Purpose: Check that a final sigma will properly change in uppercase even if it is followed by a punctuation

OTpanel

Output: Ο KAIPOΣ ΉΤΑΝ ΚΑΛΌΣ. (no language selected)
Output: Ο ΚΑΙΡΟΣ ΉΤΑΝ ΚΑΛΟΣ. (language Greek activated)

TypeMenu

Output: Ο ΚΑΙΡΌΣ ΉΤΑΝ ΚΑΛΌΣ. (no language selected) Output: ο καιρός ήταν καλός. (language Greek activated)

# Test 9: Final Sigma BeforeAfter a Punctuation:

Input: "Ο ΚΑΙΡΟΣ ΗΤΑΝ ΚΑΛΟΣ."

Expected Output (Lowercase): "Ο καιρός ήταν καλός."

Purpose: Check that a final sigma will properly change in uppercase even if it is followed by a punctuation

Updated Tests (with Corrections)

OTpanel

Output: O KAIPO $\Sigma$  HTAN KA $\Lambda$ O $\Sigma$ . (no language selected) Output: O KAIPO $\Sigma$  HTAN KA $\Lambda$ O $\Sigma$ . (language Greek activated)

#### TypeMenu

Output: ο καιρος ηταν καλος. (no language selected)

# III. Accents Handling (Correct - No Changes)

## Test 10: Lowercase Accented Vowels to Uppercase (All Accents):

Input: "άξήίουω"

Expected Output (Uppercase): "AEHIOYΩ"

Purpose: Verify accents are removed on uppercase conversion of fully-uppercase text.

**OTpanel** 

Output:  $\Hat{AEHIOY}\Omega$  (no language selected) Output:  $\Hat{AEHIOY}\Omega$  (language Greek activated)

TypeMenu

Output: Α̈ΕἩΪΌΥΩ (no language selected)
Output: ΑΕΗΪΟΫΩ (language Greek activated)

# Test 11: Uppercase to Lowercase with Accents:

Input: "AEHIOYΩ"

Expected Output (Lowercase): "αεηιουω"

Purpose: Verify accents are NOT added back when converting to lowercase.

**OTpanel** 

Output: AEHIOYΩ (no language selected)
Output: AEHIOYΩ (language Greek activated)

TypeMenu

Output: αεηιουω (no language selected) Output: αεηιουω (language Greek activated)

#### Test 12: Title Case with Accented First Letter:

Input: "Άλφα"

Expected Output (Title Case - First Letter Uppercase): "A $\lambda \phi \alpha$ " Purpose: Check that title case does not strip out the accent.

TypeMenu

Output: Άλφα (no language selected) Output: Άλφα (language Greek activated)

### Test 13: Title case when accented letter is not first:

Input: "πολύ"

Expected Output (Title case): "Πολύ"

Purpose: Check that title case does not add accents in subsequent letters.

TypeMenu

Output: Πολύ (no language selected) Output: Πολύ (language Greek activated)

# Test 14: Title case when uppercase letter is not the first:

Input: "ΆΛφα"

Expected Output (Title Case): "Άλφα"

Purpose: Check that title case preserves accent if it exists in uppercase and the first letter of the word.

TypeMenu

Output: Άλφα (no language selected)
Output: Άλφα (language Greek activated)

### Test 15: Accented word in sentence:

Input: "Αυτό είναι το σωστό"

Expected Output (Title case): "Αυτό Είναι Το Σωστό"

Purpose: Test that title case properly handles accented first letters when multiple words are present.

TypeMenu

Output: Αυτό Είναι Το Σωστό (no language selected)
Output: Αυτό Είναι Το Σωστό (language Greek activated)

#### Test 16: Title case with no accents:

Input: "αλφα"

Expected Output (Title Case): "Αλφα"

Purpose: Test that title case does add an accent if it's the standard form of that uppercase letter.

TypeMenu

Output: Αλφα (no language selected) Output: Αλφα (language Greek activated)

# IV. Dieresis Handling (Revised Again!)

### Test 17: Lowercase Dieresis:

Input: "ïü"

Expected Output (Uppercase): "ÏŸ"

Purpose: Verify dieresis is preserved on uppercase conversion.

**OTpanel** 

Output: ÏŸ (no language selected) Output: ÏŸ (language Greek activated)

TypeMenu

Output: ÏŸ (no language selected)
Output: ÏŸ (language Greek activated)

#### Test 18: Accented Dieresis:

Input: "ໍ່ເບ໊້"

Expected Output (Uppercase): "ÏŸ"

Purpose: Verify dieresis is preserved and accents are removed on uppercase conversion.

OTpanel

Output: ïü (no language selected) Output: ïü (language Greek activated)

TypeMenu

Output: IY (no language selected)
Output: IY (language Greek activated)

# Test 19: Uppercase to Lowercase Accented Dieresis:

Input: "ÏŸ"

Expected Output (Lowercase with accents and dieresis): "ïü"

Purpose: Verify proper conversion and re-introduction of dieresis and accents after going through uppercase

OTpanel

Output: ÏŸ (no language selected) Output: ÏŸ (language Greek activated)

TypeMenu

Output: ïü (no language selected) Output: ïü (language Greek activated)

### V. Combined Cases, Accents, and Dieresis (Revised)

# Test 20: Complex Mixed Input:

Input: "άβγδΈζηθΙκλμνξόπρσΤυφχψώϊϋΐΰ"

Expected Output (Uppercase): "ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩΪΫΪΫ" Expected Output (Lowercase): "αβγδέζηθικλμνξόπρστυφχψωϊϋΐΰ"

Purpose: Test all rules in a single, complex input.

**OTpanel** 

Output (Uppercase): ΆΒΓΔΈΖΗΘΙΚΛΜΝΞΌΠΡΣΤΥΦΧΨΏΪΫτΰ (no language selected)
Output (Lowercase): άβγδΈζηθΙκλμνξόπροΤυφχψώϊϋτΰ (no language selected)
Output (Uppercase): ΆΒΓΔΈΖΗΘΙΚΛΜΝΞΌΠΡΣΤΥΦΧΨΏΪΫτΰ (language Greek activated)
Output (Lowercase): άβγδΈζηθΙκλμνξόπροΤυφχψώϊϋτΰ (language Greek activated)

## TypeMenu

Output (Uppercase): ΆΒΓΔΈΖΗΘΙΚΛΜΝΞΌΠΡΣΤΥΦΧΨΏΙΫΙΥ (no language selected)
Output (Lowercase): άβγδέζηθικλμνξόπρστυφχψώϊϋΐΰ (no language selected)
Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩΪΫΙΫ (language Greek activated)
Output (Lowercase): άβγδέζηθικλμνξόπρστυφχψώϊϋΐΰ (language Greek activated)

## Test 21: A sentence with all edge cases included:

Input: "Ο καλλιτέχνης έδωσε το έργο με στυλ ϊου."

Expected Output (Uppercase): "Ο ΚΑΛΛΙΤΕΧΝΗΣ ΕΔΩΣΕ ΤΟ ΕΡΓΟ ΜΕ ΣΤΥΛ ΪΟΥ." Expected Output (Title Case): "Ο Καλλιτέχνης Έδωσε Το Έργο Με Στυλ Ίου." Purpose: A real-world sentence that covers most of the cases we are testing.

## **OTpanel**

Output (Uppercase): Ο ΚΑΛΛΙΤΕΧΝΗΣ ΈΔ $\Omega$ ΣΕ ΤΟ ΈΡΓΟ ΜΕ ΣΤΥΛ ΪΟΥ (no language selected) Output (Lowercase): Ο καλλιτέχνης έδωσε το έργο με στυλ ϊου (no language selected)

Output (Uppercase): Ο ΚΑΛΛΙΤΕΧΝΗΣ ΈΔΩΣΕ ΤΟ ΈΡΓΟ ΜΕ ΣΤΥΛ ΪΟΥ (language Greek activated) Output (Lowercase): Ο καλλιτέχνης έδωσε το έργο με στυλ ϊου (language Greek activated)

# TypeMenu

Output (Uppercase): O KAΛΛΙΤΕΧΝΗΣ Έ $\Delta\Omega\Sigma$ Ε ΤΟ ΈΡΓΟ ΜΕ  $\Sigma$ ΤΥΛ ΪΟΥ (no language selected)

Output (Lowercase): ο καλλιτέχνης έδωσε το έργο με στυλ ϊου (no language selected)

Output (Uppercase): Ο ΚΑΛΛΙΤΕΧΝΗΣ ΕΔΩΣΕ ΤΟ ΕΡΓΟ ΜΕ ΣΤΥΛ ΪΟΥ (language Greek activated) Output (Lowercase): ο καλλιτέχνης έδωσε το έργο με στυλ ϊου (language Greek activated)