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 Θ IK Λ MN Ξ O Π P Σ TY Φ X Ψ Ω " Purpose: Check the basic lowercase to uppercase conversion for all letters.

OTpanel

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

TypeMenu

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

TypeMenu

Output: αβγδεζηθικλμνξοπρστυφχψω(no language selected)
Output: αβγδεζηθικλμνξοπρστυφχψω(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): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(no language selected)
Output (Lowercase): ΑβΓδΕζΗθΙκΛμΝξΟπΡσΤυΦχΨω(no language selected)
Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(language Greek activated)
Output (Lowercase): ΑβΓδΕζΗθΙκΛμΝξΟπΡσΤυΦχΨω(language Greek activated)

TypeMenu

Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(no language selected) Output (Lowercase): αβγδεζηθικλμνξοπροτυφχψω(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 ' σ ' to ' Σ ' conversion in a word with no final sigma.

OTpanel

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 Σ KA Λ O Σ KO Σ MO Σ EINAI E Δ Q"

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

OTpanel

Output: $\overline{ENA\Sigma} KANO\Sigma KO\Sigma MO\Sigma E'INAI E\Delta'\Omega$ (no language selected) Output: $ENA\Sigma KANO\Sigma KO\Sigma MO\Sigma EINAI E\Delta\Omega$ (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: $\Sigma A \Sigma$ (no language selected) Output: $\Sigma A \Sigma$ (language Greek activated)

TypeMenu

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

TypeMenu

Output (Uppercase): ΣΥΣΣΩΜΑΤΏΣΕΙΣ (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: O KAIPO Σ 'HTAN KA Λ 'O Σ . (no language selected) Output: O KAIPO Σ 'HTAN KA Λ O Σ . (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: "O KAIPO Σ HTAN KA Λ O Σ ."

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 Σ HTAN KA Λ O Σ . (no language selected) Output: O KAIPO Σ HTAN KA Λ O Σ . (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: "άέἡίουώ"

Expected Output (Uppercase): "AEHIOYΩ"

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

OTpanel

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

TypeMenu

Output: ΆΈΉἸΟΎΩ (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: AEHIOY Ω (no language selected) Output: AEHIOY Ω (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): "Άλφα" 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: "ເປ່"

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): ΑΒΓΔΈΖΗΘΙΚΛΜΝΞΌΠΡΣΤΥΦΧΨΏΪΫ το (no language selected)
Output (Lowercase): άβγδΈζηθΙκλμνξόπροΤυφχψώϊοῦ (no language selected)

Output (Uppercase): ΑΒΓΔΈΖΗΘΙΚΛΜΝΞΌΠΡΣΤΥΦΧΨΏΪΥϊΰ (language Greek activated) Output (Lowercase): άβγδΈζηθΙκλμνξόπροΤυφχψώϊϋῖΰ (language Greek activated)

TypeMenu

Output (Uppercase): $AB\Gamma\Delta'EZH\ThetaIK\Lambda MN\Xi'O\PiP\Sigma TY\Phi X\Psi'\Omega\ddot{I}\ddot{Y}'Y'$ (no language selected)

Output (Lowercase): άβγδέζηθικλμνξόπρστυφχψώϊϋιΰ (no language selected)

Output (Uppercase): $AB\Gamma\Delta EZHOIK\Lambda MN\Xi O\PiP\Sigma TY\Phi X\Psi\Omega \ddot{I}\ddot{Y}\ddot{I}\ddot{Y}$ (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): O KA $\Lambda\Lambda$ IT EXNH Σ E $\Delta\Omega\Sigma$ E TO EPFO ME Σ TY Λ ÏOY (no language selected)

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

Output (Uppercase): Ο ΚΑΛΛΙΤΈΧΝΗΣ ΈΔΩΣΕ ΤΟ ΈΡΓΟ ΜΕ ΣΤΥΛ ΪΟΥ (language Greek activated)

Output (Lowercase): Ο καλλιτέχνης έδωσε το έργο με στυλ ισυ (language Greek activated)

TypeMenu

Output (Uppercase): Ο ΚΑΛΛΙΤΈΧΝΗΣ ΈΔΩΣΕ ΤΟ ΈΡΓΟ ΜΕ ΣΤΥΛ ΪΟΥ (no language selected)

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

Output (Uppercase): O KA $\Lambda\Lambda$ ITEXNH Σ E $\Delta\Omega\Sigma$ E TO EPFO ME Σ TY Λ ÏOY (language Greek activated)

Output (Lowercase): ο καλλιτέχνης έδωσε το έργο με στυλ ϊου (language Greek activated)