

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

### Test 1: Simple Lowercase to Uppercase:

Input: "αβγδεζηθικλμνξοπρστυφχψω"

Expected Output (Uppercase): "ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ"

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

OTpanel

Output: ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(no language selected)

Output: ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(language Greek activated)

TypeMenu

Output: ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(no language selected)

Output: ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(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: ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(no language selected)

Output: ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ(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): 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 'σ' to 'Σ' conversion in a word with no final sigma.

OTpanel

Output: ΣΥΝΑΔΕΛΦΟΣ(no language selected)

Output: ΣΥΝΑΔΕΛΦΟΣ(language Greek activated)

TypeMenu

Output: ΣΥΝΑΔΕΛΦΟΣ(no language selected)

Output: ΣΥΝΑΔΕΛΦΟΣ(language Greek activated)

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

Input: "Ένας καλός κόσμος είναι εδώ"

Expected Output (Uppercase): "ΕΝΑΣ ΚΑΛΟΣ ΚΟΣΜΟΣ ΕΙΝΑΙ ΕΔΩ"

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

OTpanel

Output: ΕΝΑΣ ΚΑΛΟΣ ΚΟΣΜΟΣ ΕΙΝΑΙ ΕΔΩ (no language selected)

Output: ΕΝΑΣ ΚΑΛΟΣ ΚΟΣΜΟΣ ΕΙΝΑΙ ΕΔΩ (language Greek activated)

TypeMenu

Output: ΕΝΑΣ ΚΑΛΟΣ ΚΟΣΜΟΣ ΕΙΝΑΙ ΕΔΩ (no language selected)

Output: ΕΝΑΣ ΚΑΛΟΣ ΚΟΣΜΟΣ ΕΙΝΑΙ 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: 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): 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 ΚΑΙΡΟΣ ΗΤΑΝ ΚΑΛΟΣ. (no language selected)

Output: Ο ΚΑΙΡΟΣ ΗΤΑΝ ΚΑΛΟΣ. (language Greek activated)

TypeMenu

Output: Ο ΚΑΙΡΟΣ ΗΤΑΝ ΚΑΛΟΣ. (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: Ο ΚΑΙΡΟΣ ΗΤΑΝ ΚΑΛΟΣ. (no language selected)

Output: Ο ΚΑΙΡΟΣ ΗΤΑΝ ΚΑΛΟΣ. (language Greek activated)

TypeMenu

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

Output: ο καιρος ηταν καλος. (language Greek activated)

### III. Accents Handling (Correct - No Changes)

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

Input: "ἄέήϊούώ"

Expected Output (Uppercase): "ΑΕΗΙΟΥΩ"

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

OTpanel

Output: ἈΈΗΊΌΨΩ (no language selected)

Output: ἈΈΗΊΌΨΩ (language Greek activated)

TypeMenu

Output: ἈΈΗΊΌΨΩ (no language selected)

Output: ΑΕΗΪΟΨΩ (language Greek activated)

Test 11: Uppercase to Lowercase with Accents:

Input: "ΑΕΗΙΟΥΩ"

Expected Output (Lowercase): "αηιουω"

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

OTpanel

Output: ΑΕΗΙΟΥΩ (no language selected)

Output: ΑΕΗΙΟΥΩ (language Greek activated)

TypeMenu

Output: αηιουω (no language selected)

Output: αηιουω (language Greek activated)

Test 12: Title Case with Accented First Letter:

Input: "Ἄλφα"

Expected Output (Title Case - First Letter Uppercase): "Ἄλφα"

Purpose: Check that title case does not strip out the accent.

TypeMenu

Output: Ἄλφα (no language selected)

Output: Ἄλφα (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: "Ἄλφα"

Expected Output (Title Case): "Ἄλφα"

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

TypeMenu

Output: Ἄλφα (no language selected)

Output: Ἄλφα (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: "ἄλφα"

Expected Output (Title Case): "Ἀλφα"

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

TypeMenu

Output: Ἀλφα (no language selected)

Output: Ἀλφα (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: "ïü"

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: ÏŸ (no language selected)

Output: ÏŸ (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: "ἄβγδεζηθικλμνξόπρστυφχψώϊϋϗ"

Expected Output (Uppercase): "ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩΪϚϗ"

Expected Output (Lowercase): "ἄβγδέζηθικλμνξόπρστυφχψώϊϣϘ"

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

OTpanel

Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩΪϚϗ (no language selected)

Output (Lowercase): ἄβγδεζηθικλμνξόπρστυφχψώϊϣϘ (no language selected)

Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩΪϚϗ (language Greek activated)

Output (Lowercase): ἄβγδεζηθικλμνξόπρστυφχψώϊϣϘ (language Greek activated)

#### TypeMenu

Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩΪΫΥ (no language selected)

Output (Lowercase): αβγδέζηθικλμνξόπρστυφχψώϊϋϣ (no language selected)

Output (Uppercase): ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩΪΫΥ (language Greek activated)

Output (Lowercase): αβγδέζηθικλμνξόπρστυφχψώϊϋϣ (language Greek activated)

Test 21: A sentence with all edge cases included:

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

Expected Output (Uppercase): "Ο ΚΑΛΛΙΤΕΧΝΗΣ ΕΔΩΣΕ ΤΟ ΕΡΓΟ ΜΕ ΣΤΥΛ ΪΟΥ."

Expected Output (Title Case): "Ο Καλλιτέχνης Έδωσε Το Έργο Με Στυλ Ϊου."

Purpose: A real-world sentence that covers most of the cases we are testing.

#### OTpanel

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

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

#### TypeMenu

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

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