Sommario

Functional Testing Document for Utils Class

Scope

This document describes the functional testing process for the Utils class in the dev.uninotes.UniNotes.Utils package. Each test case is identified with a unique ID following the format TUTxx and includes details about the test scenario, expected outcomes, and actual results.

Test Cases

1. Test Email Validation

- **Test ID**: TUT01
- **Objective**: Verify that the isValidEmail() method correctly identifies valid and invalid email formats.
- **Steps**:
  1. Call Utils.isValidEmail("test@example.com").
  2. Call Utils.isValidEmail("thisEmailIsInvalid").
- **Expected Result**: The method returns true for a valid email and false for an invalid email.

- **Successful**: yes.

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2. Test Password Encryption

- **Test ID**: TUT02
- **Objective**: Verify that the cryptPassword() method encrypts passwords correctly.
- **Steps**:
  1. Call Utils.cryptPassword("TestPassword123").
- **Expected Result**: The encrypted password is not null and is 32 characters long.
- **Successful**: yes.

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3. Test Correct Hashing

- **Test ID**: TUT03
- **Objective**: Verify that the cryptPassword() method encrypts the same.
- **Steps**:
  1. Call Utils.cryptPassword("TestPassword123").
  2. Call Utils.cryptPassword("TestPassword123").
- **Expected Result**: The encrypted passwords are equals.
- **Successful**: yes.

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4. Test Character Position Finder

- **Test ID**: TUT04
- **Objective**: Verify that the find() method correctly identifies the position of a character in a string.
- **Steps**:
  1. Call Utils.find("hello", 'l').
  2. Call Utils.find("hello", 'z').
- **Expected Result**: The method returns 2 for 'l' and -1 for 'z'.

- **Successful**: yes

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5. Test Date-Time Formatter

- **Test ID**: TUT05
- **Objective**: Verify that the dateTimeFormatter() method correctly formats a date-time string.
- **Steps**:
    1. Call Utils.dateTimeFormatter("2025-01-18 10:15:30").
- **Expected Result**: The method returns a LocalDateTime object with the correct year, month, and day.
- **Successful**: yes

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6. Test Default Profile Image Path

- **Test ID**: TUT06
- **Objective**: Verify that the getDefaultProfileImagePath() method returns the correct path.
- **Steps**:
    1. Call Utils.getDefaultProfileImagePath().
- **Expected Result**: The method returns "images/default/user.jpg".
- **Successful**: yes.

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7. Test Downloads Directory Path

- **Test ID**: TUT07
- **Objective**: Verify that the getDirectoryOfDowloads() method returns the correct downloads directory path.
- **Steps**:
    1. Call Utils.getDirectoryOfDowloads().
- **Expected Result**: The method returns "downloads/".

- **Successful**: yes.

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8. Test Downloads Folder Path

- **Test ID**: TUT08
- **Objective**: Verify that the getDownloadsFolder() method returns the correct downloads folder path.
- **Steps**:
    1. Call Utils.getDownloadsFolder().
- **Expected Result**: The method returns a path containing "Downloads".
- **Successful**: yes

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9. Test Password Validation

- **Test ID**: TUT09
- **Objective**: Verify that the validatePassword() method correctly identifies valid and invalid passwords.
- **Steps**:
    1. Call Utils.validatePassword("Test@123").
    2. Call Utils.validatePassword("test123").
- **Expected Result**: The method returns true for a valid password and false for an invalid password.
- **Successful**: yes.

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10. Test Note Types Loader

- **Test ID**: TUT10
- **Objective**: Verify that the loadNoteTypes() method retrieves a non-null and non-empty list of note types.
- **Steps**:
    1. Call Utils.loadNoteTypes().

- **Expected Result**: The method returns a non-null and non-empty list.
- **Successful**: yes.