

## Test Plan: H4 - Test og sikkerhed

### I. Introduction

- A. Purpose - The purpose of this test plan is to outline the testing approach for the Blazor web application with Identity.
- B. Scope - This test plan covers testing for user registration, login functionality, and compatibility between Windows and Linux operating systems.].
- C. Features to be Tested.
  - 1. User Registration
  - 2. 2FA
  - 3. User login
  - 4. Compatibility between Windows and Linux

### II. Test Environment

- A. Windows Environment:
  - 1. Required for testing compatibility on Windows operating systems
  - 2. System on Windows 10 or later..
  - 3. Visual Studio & .NET 8
  - 4. Virtualization activated on machine
  - 5. Connection string name, changed to something more readable
  - 6. Migration should work OOTB but if not use update-database in Package manager
- B. Linux Environment:
  - 1. WSL installed and being used for VS
  - 2. Ubuntu latest version
  - 3. .NET 8 on Linux/WSL
  - 4. SQLite database and connection string for WSL
  - 5. Service in webapp needs to take new connection string
  - 6. Migration via package manager ( add-migration [Migration\_Name] -context ApplicationDbContext)
  - 7. In WSL Migration can't use "max" in chars so they need to be replaced

### III. Test Cases *(can be **security test**, **compatibility test**, **performance test** and so on, choose from sprint backlog what can be tested...)*

#### A. Compatibility Test

##### Objective:

To ensure the application functions correctly across different operating systems.

##### Steps:

Test on Windows environment.  
Test on Linux environment.

##### Expected Results:

The application should function identically on both Windows and Linux

environments.

#### B. User Registration Test

**Objective:**

To verify the user registration process

**Steps:**

1. Navigate to the registration page.
2. Fill in username and password.
3. Press "Register" button
4. Verify redirection to QR code

**Expected Results:**

Successful registration should redirect to QR code for 2 factor Authentication.

#### C. 2 Factor Authentication Test

**Objective:**

To verify the user gets 2 factor authentication in the authenticator app

**Steps:**

1. Navigate to the registration page.
2. Fill in username and password.
3. Press "Register" button
4. Verify redirection to QR code

**Expected Results:**

Successful registration should redirect to QR code for 2 factor Authentication.

#### D. User login Test

**Objective:**

To verify users qr code and authenticator works

**Steps:**

1. Scan qr code in authenticator app
2. Navigate to login page
3. Fill in username and password
4. Press "Login" button
5. Verify 2FA shows
6. Verify 2FA code works and logs user in

**Expected Results:**

2FA code needed, and 2FA code logs users in when typed.

### IV. Conclusion

- A. Summary of Test Results – All test cases were executed successfully without encountering any critical issues.

B. Recommendations – Consider additional testing for performance aspects in future iterations.