

Export Functionality BDD Test Steps

Test Suite Overview

Purpose: Validate export functionality (Print Preview, PDF Export, Excel Export) from the View People page

Framework: SpecFlow BDD with Playwright

Test Count: 3 scenarios

Feature File: ExportFunctionality.feature

Scenario 1: Access Print Preview from View People page Output Options



Test Objective


Verify that users can access the Print Preview modal from the View People page Output Options menu.

Step-by-Step Flow

1. **Given** I am logged in as “davred”
 - Launch browser and navigate to login page
 - Enter username “davred” and password
 - Submit login form and verify successful authentication
2. **And** I am on the main page
 - Verify main page loads correctly after login
 - Confirm page title and basic UI elements are present
3. **When** I click on the “View People” link
 - Locate and click the “View People” navigation link
 - Wait for page transition to complete
4. **And** I view the View People page
 - Verify the View People page loads successfully
 - Confirm data grid with people records is displayed
5. **And** I click the “Output Options” button
 - Locate the “Output Options” button on the page
 - Click to open the export options menu
6. **And** I click on “Print Preview”
 - Select “Print Preview” from the available export options
 - Trigger the browser’s native print preview dialog
7. **Then** I should see the Browser Print preview modal
 - Verify that the browser’s print preview functionality opens
 - Note: This opens the browser’s native print dialog (cannot be fully automated)
8. **And** then I will click Cancel to close the modal
 - Press ESC key or equivalent action to close the print dialog
 - Return to the normal View People page view

Expected Results

-  Print Preview modal opens successfully
-  User can close the modal and return to normal view

-  No errors or crashes occur during the process
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Scenario 2: Export data to Excel format from View People





Test Objective

Verify that users can successfully export people data to Excel format and receive a valid Excel file download.

Step-by-Step Flow

1. **Given** I am logged in as “davred”
 - Launch browser and navigate to login page
 - Enter username “davred” and password
 - Submit login form and verify successful authentication
2. **And** I am on the main page
 - Verify main page loads correctly after login
 - Confirm page title and basic UI elements are present
3. **When** I click on the “View People” link
 - Locate and click the “View People” navigation link
 - Wait for page transition to complete
4. **And** I view the View People page
 - Verify the View People page loads successfully
 - Confirm data grid with people records is displayed
5. **And** I click the “Output Options” button
 - Locate the “Output Options” button on the page
 - Click to open the export options menu
6. **And** I click on “Export to Excel”
 - Select “Export to Excel” from the available export options
 - Trigger the Excel export functionality
7. **Then** I should receive an Excel file download
 - Intercept the download using Playwright’s download handling
 - Verify that a file download is initiated
 - Confirm the downloaded file has an Excel filename (e.g., people_export_YYYYMMDD_HHMMSS.xlsx)
8. **And** the Excel file should contain the database records
 - Verify the downloaded file exists in the Downloads folder
 - Check that the file size indicates substantial content (> 1KB)
 - Confirm the file contains data from the people database
9. **And** the Excel file should have proper column headers
 - Validate that the Excel file has the correct ZIP signature (PK bytes)
 - Verify the file is a valid Excel format
 - Confirm proper file structure

Expected Results

-  Excel file downloads successfully with timestamped filename
-  File size indicates substantial content (typically 6KB+ for test data)
-  File has valid Excel format signature
-  Download completes without errors

Technical Validation

- **Endpoint:** /Home/ExportToExcel
 - **File Format:** .xlsx (Excel 2007+ format)
 - **File Signature:** PK (ZIP-based format validation)
 - **Typical Size:** 6,000+ bytes for test dataset
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Scenario 3: Export data to PDF format from View People





Test Objective

Verify that users can successfully export people data to PDF format and receive a valid PDF file download.

Step-by-Step Flow

1. **Given** I am logged in as “davred”
 - Launch browser and navigate to login page
 - Enter username “davred” and password
 - Submit login form and verify successful authentication
2. **And** I am on the main page
 - Verify main page loads correctly after login
 - Confirm page title and basic UI elements are present
3. **When** I click on the “View People” link
 - Locate and click the “View People” navigation link
 - Wait for page transition to complete
4. **And** I view the View People page
 - Verify the View People page loads successfully
 - Confirm data grid with people records is displayed
5. **And** I click the “Output Options” button
 - Locate the “Output Options” button on the page
 - Click to open the export options menu
6. **And** I click on “Export to PDF”
 - Select “Export to PDF” from the available export options
 - Trigger the PDF export functionality
7. **Then** I should receive a PDF file download
 - Intercept the download using Playwright’s download handling
 - Verify that a file download is initiated
 - Confirm the downloaded file has a PDF filename (e.g., export_YYYYMMDD_HHMMSS.pdf)
8. **And** the PDF file should contain the database records
 - Verify the downloaded file exists in the Downloads folder
 - Check that the file size indicates substantial content (> 10KB)
 - Confirm the file contains data from the people database
9. **And** the PDF file should be properly formatted
 - Validate that the PDF file has the correct PDF header (%PDF)
 - Verify the file is a valid PDF format
 - Confirm proper file structure

Expected Results

-  PDF file downloads successfully with timestamped filename
-  File size indicates substantial content (typically 60KB+ for test data)
-  File has valid PDF format signature (%PDF)
-  Download completes without errors

Technical Validation

- **Endpoint:** /Home/ExportToPdf
 - **File Format:** .pdf (Portable Document Format)
 - **File Signature:** %PDF (standard PDF header validation)
 - **Typical Size:** 60,000+ bytes for test dataset
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Test Environment Requirements

Prerequisites

- ☒ Application running and accessible
- ☒ User account “davred” exists and is active
- ☒ Database populated with test people records
- ☒ Export functionality enabled in backend
- ☒ Browser with download permissions

Technical Setup

- **Framework:** SpecFlow 3.9.74 + Playwright
- **Browser:** Chromium (configurable)
- **Download Folder:** %USERPROFILE%\Downloads
- **Reporting:** HTML reports with SpecFlow LivingDoc
- **Test Parallelization:** Disabled (ClassLevel scope)

File Validation Methods

1. **Download Interception:** Playwright’s built-in download handling
 2. **File Existence:** Verify files appear in Downloads folder
 3. **Size Validation:** Ensure files contain substantial content
 4. **Format Validation:** Check file signatures (PDF: %PDF, Excel: PK)
 5. **Cleanup:** Files remain in Downloads for manual verification
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Reporting and Execution

Test Execution Commands


```
# Run export tests only
dotnet test --filter "FullyQualifiedName~ExportFunctionality"

# Run all BDD tests (including export)
.\Scripts\run-bdd-tests.ps1






# Run complete test suite with reporting
.\Scripts\run-all-tests-sequential.ps1
```

Test Reports

- **BDD HTML Report:** TestResults\BDD_Tests_Report.html

- **Cucumber Output:** Console with  step-by-step execution
- **TRX Report:** TestResults\BDD_Tests_Results.trx

Success Criteria

-  All 3 export scenarios pass
 -  2 download files created (1 Excel + 1 PDF)
 -  No browser context conflicts
 -  Files have valid format signatures
 -  Beautiful BDD reporting generated
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Troubleshooting Guide

Common Issues

1. **Multiple Downloads:** Ensure only 3 scenarios exist in feature file
2. **Browser Context Conflicts:** Use single browser instance via PlaywrightHooks
3. **Download Failures:** Check backend export endpoints are functional
4. **File Validation Errors:** Verify Downloads folder permissions

Debug Commands

```
# List all tests  
dotnet test --list-tests
```

```
# Check export test count  
dotnet test --filter "FullyQualifiedName~ExportFunctionality" --list-tests
```

```
# Verbose execution  
dotnet test --filter "FullyQualifiedName~ExportFunctionality" --logger "console;verbosity=detailed"
```

For all future export functionality updates, this comprehensive test documentation should be maintained alongside the BDD feature files and step definitions.