

Emerald: Online Guideline Checking Tool

Group 2:

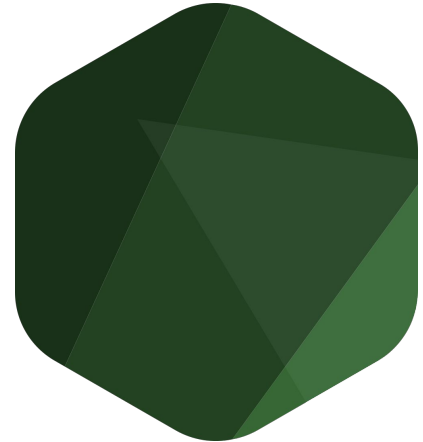
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Information Architecture and Web Usability WS 2024/2025

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What is Emerald?

- Web app for guideline checking and scoring.
- Create and manage checklists.
- Invite reviewers to add reviews.
- Inspection of reviews.
- Github repository: <https://github.com/marcel-zisser/emerald>



Terminology

Entities:

- Project - every project has a checklist.
- Criterion - item in checklist.
- Review - process of checking the criteria.

Roles:

- Admin - manages users
- Project Owner - creates project and assigns reviewers.
- Reviewer - checks criteria.

Testpad

The screenshot displays the Testpad web interface. At the top, there is a navigation bar with 'TESTPAD', 'SCRIPT', 'EDIT', and 'REPORTING' tabs. The user is logged in as 'nico187gabriel@gmail.com' with the 'iaweb' role. The current project is 'Example Project' and the release is 'Release 0.1'. A progress bar shows 5 tests passed, 3 failed, and 0 skipped out of 8/19 tests (42% completion).

The main content area shows a test script titled 'Hello World' with the following text: 'This is an example script. Scripts define your tests. Lots of tests. Use the indentation/outlining structure to make logical groups.'

The test script is organized into sections:

- Basic ideas to get you started...**
 - 0002 Click me to edit me (Pass)
 - 0003 Press ENTER to make a new test (Pass)
 - 0004 Press TAB to indent me (Pass)
 - 0005 Press ALT-? to see keyboard shortcuts (Fail - BUG123)
 - 0006 Try CloseAll and ExpandAll at the very bottom of this window (Pass)
- Example Formatting: Simple Prompts**
 - 0008 login with good credentials works (Pass)
 - 0009 login with bad credentials rejected (Fail)
 - 0010 login with blank password rejected (Pass)
- Example Formatting: Test Cases**
 - 0012 <https://google.com/search?q=Testpad>
 - 0013 step one (click me to see the -- prefix to make me a non-test row)
 - 0014 step two
 - 0015 step three

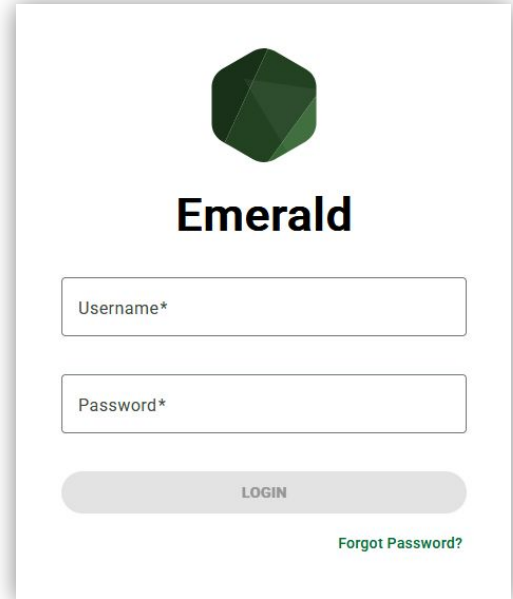
The right sidebar shows a 'TESTING RUN 1' summary with a progress bar (5 passed, 3 failed, 0 skipped, 8/19 tests, 42% completion). Below the summary are sections for 'COMMENTS' (with a 'show test notes' toggle), 'ATTACHMENTS' (with a 'drag and drop' area), and 'BUG TRACKING' (with an 'enter a bug number here' input). At the bottom of the sidebar are buttons for 'PASS', 'FAIL', 'BLOCKED', 'QUERY', 'EXCLUDE', and 'AUTO ADVANCE' (set to 'visiting untested tests').

At the bottom of the main content area, there is a footer bar with buttons for 'Close All' and a list of test cases: 1, 2, 3, 4, 5, 6, Expand All, Interesting, Untested.

Objectives

Authentication and Authorisation

















- Login- and logout functionality:
 - JWT authentication with token refresh logic.
- Role-based authorisation in frontend and backend:
 - Not every user can access every page or API endpoint.



The image shows a login form for a system named 'Emerald'. At the top center is a green, faceted hexagonal logo. Below the logo, the word 'Emerald' is written in a bold, black, sans-serif font. Underneath the name are two input fields: the first is labeled 'Username*' and the second is labeled 'Password*'. Below these fields is a rounded rectangular button with the text 'LOGIN' in all caps. At the bottom right of the form, there is a link that says 'Forgot Password?' in a smaller, green font.

User and Account Management

- Admins can add, edit and delete users, but not maintain projects.
- Reviewers and Project Owners can change only their own data.

Last Name	First Name	Username	E-Mail	Role	Actions
Istrator	Admin	admin	admin@emerald.com	Admin	 
Doe	John	project-owner	project@emerald.com	Project Owner	 
Doe	Jane	reviewer	review@emerald.com	Reviewer	 
Smith	Dalton	reviewer-smith	review.smith@emerald.com	Reviewer	 
Johnson	Mack	reviewer-johnson	review.johnson@emerald.com	Reviewer	 
Williams	Virgie	reviewer-williams	review.williams@emerald.com	Reviewer	 
Brown	Samuel	reviewer-brown	review.brown@emerald.com	Reviewer	 
Davis	Johana	reviewer-davis	review.davis@emerald.com	Reviewer	 

Account Details

First Name	Last Name
<input type="text" value="John"/>	<input type="text" value="Doe"/>
Username	Role
<input type="text" value="johndoe"/>	<input type="text" value="Project Owner"/>
E-Mail	
<input type="text" value="johndoe@emerald.com"/>	
<input type="button" value="Reset"/>	<input type="button" value="Submit"/>

User Management

+ Add User

Last Name	First Name	Username	E-Mail	Role
Administrator	Admin	admin	admin@emerald.com	Admin
Owner	Project	project-owner	project@emerald.com	Project Owner
Typ	Review	reviewer	review@emerald.com	Reviewer
Smith	Review	reviewer-smith	review.smith@emerald.com	Reviewer
Johnson	Review	reviewer-johnson	review.johnson@emerald.com	Reviewer
Williams	Review	reviewer-williams	review.williams@emerald.com	Reviewer
Brown	Review	reviewer-brown	reviewer.brown@emerald.com	Reviewer
Davis	Review	reviewer-davis	review.davis@emerald.com	Reviewer

User and Account Management Live Demo

<https://youtu.be/7EPtqFGjQW4>

Dashboard

- For Reviewers:
 - Overview of the most recently assigned reviews.

- Additional view for Project Owners:
 - Overview of the most recently created projects.
 - Status of the reviews.

My Reviews

Here is an overview of your most recently assigned reviews. To get all your checklists, please [click here](#)

● Passed ● Failed ● Pending

Project Title	Project Owner	Assignment Date	Due Date	Review Status	Criteria Summary
Checklist Homepage Design	Project Owner	2025-01-24		In Progress	<div><div style="width: 100%;"></div></div> 11 1 34

My Projects

Here is an overview of your most recently created projects. To get all your projects, please [click here](#)

Checklist Homepage Design

0 out of 6 reviews completed ^

The Web Usability Checklist. The checklist covers 46 individual guidelines.

Reviews

● Passed ● Failed ● Pending

Reviewer	Assignment Date	Due Date	Review Status	Criteria Summary
Typ Review	2025-01-24		In Progress	<div><div style="width: 100%;"></div></div> 11 1 34
Smith Review	2025-01-24		Not Started	<div><div style="width: 100%;"></div></div> 46

Checklists

- Step-by-step creation of Projects:
 - Basic data (e.g. title, description, ...)
 - Definition of criteria groups.
 - Definition of criteria.
 - Reviewer assignment.
- Checklist Owner can track progress of reviews.

✓ Basic Checklist configuration — Define Criteria — Add Reviewers

Define Criteria

Define the criteria groups and criteria for the checklist.

Startpage

Group Name*
Startpage

Group Description
Basic points on the welcome page

Criteria

Big header including the slogan

Criterion Description
Big header including the slogan

✓ Binary Points

Delete Criterion

Add Criterion Delete Criteria Group

Project Summary

Checklist Homepage Design

The Web Usability Checklist. The checklist covers 46 individual guidelines.

Select reviewers

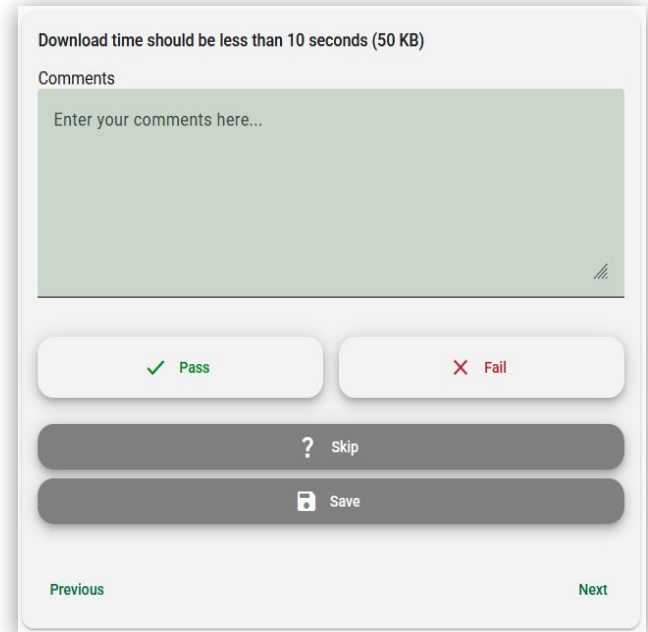
	Review Typ	Review Smith
Performance and Accessibility		
Download time should be less than 10 seconds (50 KB)	out of 3	out of 3
Use a window title starting with the company name	out of 3	out of 3
Ensure the title tag line is relevant and includes a slogan	out of 3	out of 3
URL should be hackable and part of the UI.	out of 2	out of 2
Implement proper error pages to handle broken links	out of 2	out of 2
Meta tags should be optimized for search engines.	out of 3	out of 3
Include alternative information for images	out of 2	out of 2
Design and Layout		
Maintain a page width of 770 pixels.	out of 2	out of 2
Liquid layouts are preferable over frozen ones.	out of 2	out of 2
Page length should be less than 2 pages (1000-1600 px).	out of 2	out of 2
Avoid using frames for layout.	out of 3	out of 3
Place the logo in the upper-left corner.	out of 3	out of 3
Ensure the logo size is around 80x68 pixels.	out of 2	out of 2
Do not include auto-playing music.	out of 3	out of 3
Limit animations for better usability.	out of 2	out of 2
Use 5-15% of graphics or illustrations.	out of 1	out of 1
Limit advertising to 3 or fewer.	out of 2	out of 2

**Project Owner
Live Demo**

<https://youtu.be/6MnWik11qT4>

Review

- Users can review assigned projects.
- Binary and point-based criteria.
- Users can leave comments on every criterion.
- Users can save the progress of a review and continue later.



Download time should be less than 10 seconds (50 KB)

Comments

Enter your comments here...

✓ Pass

✗ Fail

? Skip

📁 Save

Previous

Next

The screenshot shows a review interface for a specific criterion. At the top, the criterion is stated: "Download time should be less than 10 seconds (50 KB)". Below this is a "Comments" section with a large green text area for entering feedback. At the bottom, there are four buttons: "Pass" (with a green checkmark), "Fail" (with a red X), "Skip" (with a question mark), and "Save" (with a floppy disk icon). Navigation buttons "Previous" and "Next" are located at the very bottom of the interface.

Reviews

Checklist Homepage Design

Performance and Accessibility

Download time should be less than 10 seconds (50 KB)

Pending

Use a window title starting with the company name.

Pending

Ensure the title tag line is relevant and includes the page title.

Pending

URL should be hackable and part of the UI.

Pending

Implement proper error pages to handle broken links.

Pending

Meta tags should be optimized for search engines.

Pending

Include alternative information for images.

Pending

Design and Layout

Navigation and Interaction

Reviewer Live Demo

<https://youtu.be/3DpUPdjNfls>

Download time should be less than 10 seconds (50 KB)

Comments

Enter your comments here...

Points

? Skip

Save

Previous

Deployment

- Nest.js statically serves the Angular frontend.
 - Only one application needs to be started.
- Freedom of deployment:
 - Platform must be capable of running Node.js.
 - Emerald demo: <https://emerald-g8kn.onrender.com>
- Goals:
 - Easy deployment, using just one executable.
 - No dependencies on cloud services.
 - Configuration via .ENV file.

Future Work

- Checklist import:
 - CSV import of criteria groups and criteria.
- Review result summarisation and visualisation:
 - PDF export of review results report.
- Bug tracking functionality.
- General visual and usability improvements.

Questions?