

# **Emerald: Online Guideline Checking Tool**

**Group 2:**

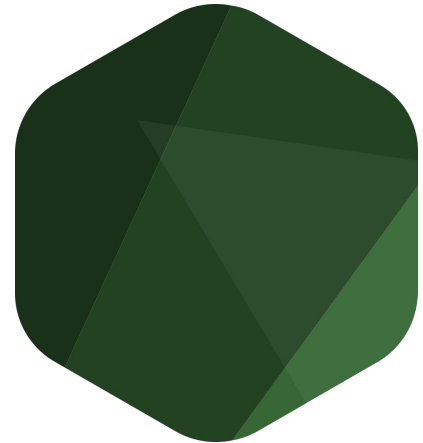
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**Information Architecture and Web Usability WS 2024/2025**

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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 dark navigation bar with the 'TESTPAD' logo, menu items 'SCRIPT', 'EDIT', and 'REPORTING', a 'saved' button, the user email 'nico187gabriel@gmail.com', and the 'iaweb' logo. Below the navigation bar, the main content area shows a test script titled 'Hello World' with a description: 'This is an example script. Scripts define your tests. Lots of tests. Use the indentation/outlining structure to make logical groups.' The script content includes sections for 'Basic ideas to get you started...', 'Example Formatting: Simple Prompts', and 'Example Formatting: Test Cases'. A table on the right side of the script shows test results for each row, with a green bar indicating the overall progress (42% complete, 8/19 tests). A 'TESTING RUN 1' panel is open on the right, showing a summary of the test run (5 passed, 3 failed, 0 blocked, 0 queries, 8/19 tests, 42% complete) and a 'close' button. Below the summary are sections for 'COMMENTS' (with a 'show test notes' toggle), 'ATTACHMENTS' (with a 'drag and drop' area), and 'BUG TRACKING' (with a 'use settings to make this a link' toggle and an input field for a bug number). At the bottom of the testing panel are buttons for 'PASS' (green), 'FAIL' (red), 'BLOCKED', 'QUERY', 'EXCLUDE', 'CLEAR', 'PREV', and 'NEXT'. The bottom of the main interface has a footer with 'Close All' and numbered buttons (1-6) for navigation, and 'Expand All', 'Interesting', and 'Untested' filters.

TESTPAD SCRIPT EDIT REPORTING saved nico187gabriel@gmail.com iaweb

Example Project Release 0.1 5 3 0 8 / 19 (42%)

## Hello World

This is an example script. Scripts define your tests. Lots of tests. Use the indentation/outlining structure to make logical groups.

number	tester	date	build
0001			
0002			
0003			
0004			
0005			
0006			
0007			
0008			
0009			
0010			
0011			
0012			
0013			
0014			
0015			

TESTING RUN 1 close ESC

5 3 0 0 8 / 19 42%

COMMENTS show test notes

enter any comments here

ATTACHMENTS drag and drop

BUG TRACKING (use settings to make this a link)

enter a bug number here

PASS ✓ FAIL ✗

BLOCKED QUERY EXCLUDE

AUTO ADVANCE

visiting untested tests

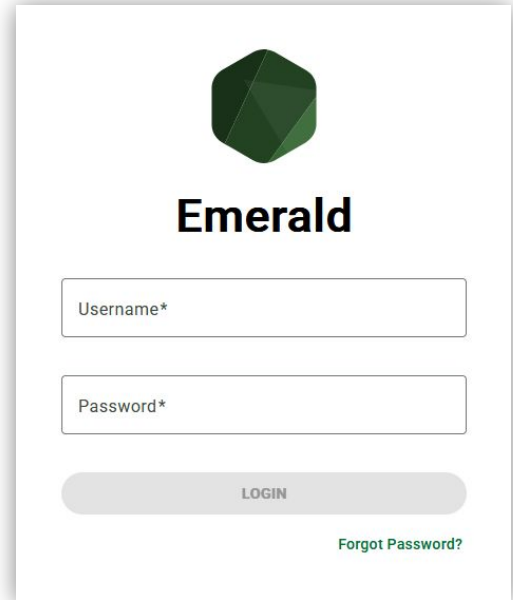
CLEAR PREV NEXT

Close All 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	review.brown@emerald.com	Reviewer
Davis	Review	reviewer-davis	review.davis@emerald.com	Reviewer

# User and Account Management Live Demo

<https://youtu.be/gXo2uaaXfY4>



# 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

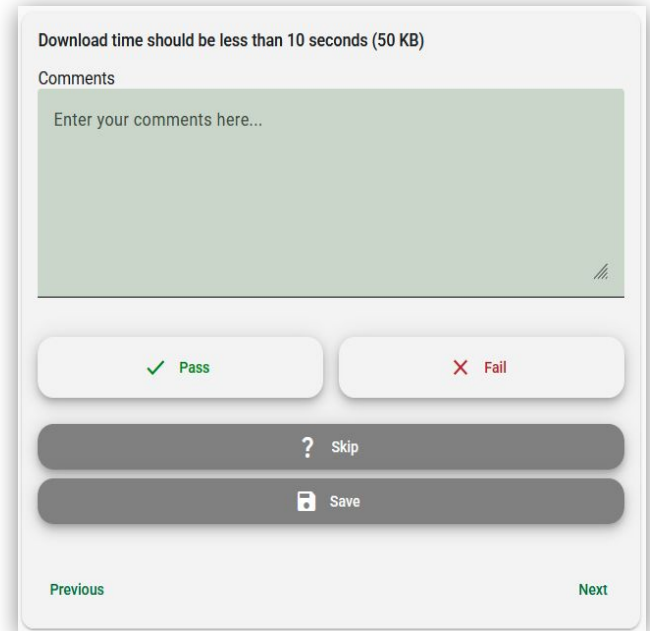
	Review Typ	Review Smith
<b>Performance and Accessibility</b>		
Download time should be less than 10 seconds (50 KB)	out of 3	out of 3
Use a window title starting with the company name	out of 3	out of 3
Ensure the title tag line is relevant and includes a slogan	out of 3	out of 3
URL should be hackable 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
<b>Design and Layout</b>		
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/3iG\\_aSNFs\\_E](https://youtu.be/3iG_aSNFs_E)

# 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 five buttons: "Pass" (with a green checkmark), "Fail" (with a red X), "Skip" (with a question mark), "Save" (with a floppy disk icon), and "Previous/Next" navigation buttons.

## 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/goLBtXk2\\_98](https://youtu.be/goLBtXk2_98)

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?**