

Java Practical Assessment Grader - User Guide

Overview

This application helps instructors grade Java programming assignments by comparing student submissions against a marking scheme. It provides tools for automatic and manual grading, code comparison, and report generation.

Step-by-Step Instructions

1. Upload Files and Set Up

1. Upload Marking Scheme

- Click "Browse" next to "Marking Scheme"
- Select the Java file containing the correct/reference implementation

2. Upload Student Submission

- Click "Browse" next to "Student Submission"
- Select the student's Java file
- (The student name will auto-populate from the filename - you can edit this)

3. Enter Student Name

- Edit the name in the "Student Name" field if needed

4. Load Files

- Click the "Load Files" button to load both files into the interface

2. Automatic Grading

1. Calculate Marks Automatically

- Click the "Calculate" button
- The system will:
 - Compare the student code with the marking scheme
 - Highlight matches (green) and missing code (red)
 - Populate the grading table with initial scores

3. Manual Grading Options

Option A: Edit Marks Directly in Table

1. **Double-click** on any cell in the "Allocated Marks", "Awarded Marks", or "Comments" columns
2. **Edit** the value
3. **Press Enter** to save your changes

Option B: Grade Selected Code

1. **Highlight** code in both panels:
 - Left panel: Reference code from marking scheme
 - Right panel: Student's code
2. Click the "Grade" button
3. In the dialog:
 - Verify the code selections
 - Enter allocated and awarded marks
 - Add comments if needed
 - Click "Submit Grade"

Option C: Manual Code Matching

1. **Highlight** code in the student submission (right panel)
2. Click "Copy Student Code"
3. In the results table:
 - Select a red-highlighted (missing) criteria
4. Click "Paste Reference Code"
5. Enter the awarded marks in the dialog
6. Click OK to save

4. Additional Features

- **Compare Selections:** Highlight code in both panels and click "Compare" to see them side-by-side
- **Clear Selections:** Click "Clear" to remove current highlights
- **Right-click Menu:** Right-click on any row in the results table for additional options:
 - Edit awarded marks
 - Edit comments
 - View reference code

- Delete the grading entry

5. Generate Final Report

1. **Save as Excel:**

- Click "Save Excel"
- Choose a location and filename
- The report will include:
 - Detailed grading breakdown
 - Total marks
 - Color-coding for manual adjustments

2. **Save as Text:**

- Click "Save TXT" for a plain text version

Tips

- The system automatically highlights mark allocations (e.g., "// 2.0") in yellow in the marking scheme
- Red rows in the results table indicate criteria not found in the student's submission
- Green highlights in the student code show matches with the marking scheme
- Yellow highlights show approximate matches when you click on a "not found" criteria
- The "Assign Marks to Selected" button activates when you click on red-highlighted criteria

Troubleshooting

- If files won't load, check they are valid Java files
- If marks don't calculate, ensure both files are loaded and the student name is entered
- For manual grading, make sure to select code in both panels before clicking "Grade"

This tool provides flexibility to combine automatic and manual grading for fair and efficient assessment of Java programming assignments.