

# P.PORTO

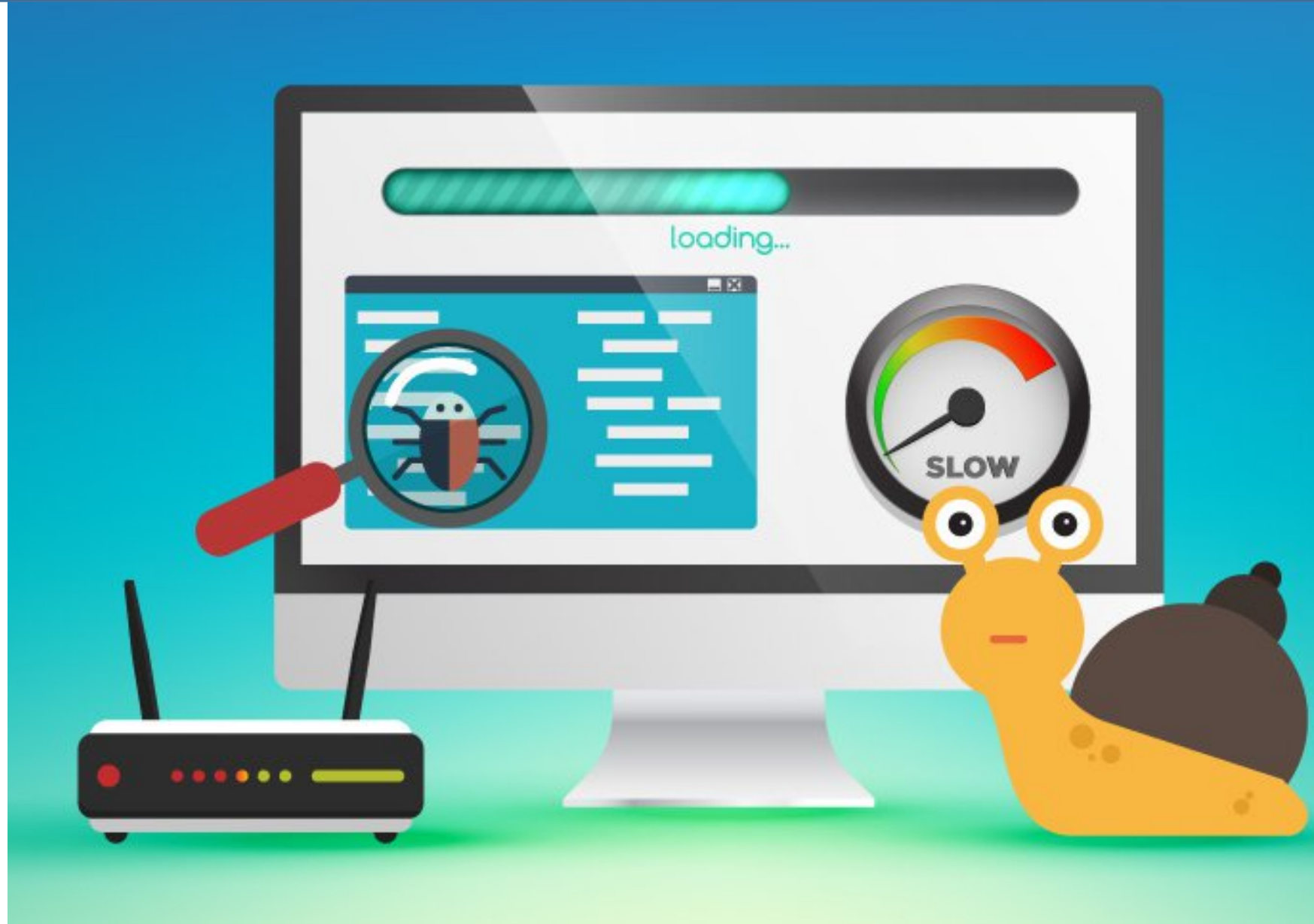
## TESTES E PERFORMANCE WEB

TECNOLOGIAS E SISTEMAS DE INFORMAÇÃO PARA A WEB

**POLITÉCNICO  
DO PORTO**  
ESCOLA  
SUPERIOR  
DE MEDIA ARTES E  
DESIGN

## PRESENTATION

TSIW 2023/2024



## TEACHER

João Ferreira



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**GitHub Repository:** [github.com/joaoadrianoferreira](https://github.com/joaoadrianoferreira)



**Schedule:** Tuesday - 14h00 until 16h00 - TP – Classroom B209  
Wednesday - 11h00 until 13h00 - TP - Classroom B209



**Students Guidance:** Tuesday -16h00 until 18h00 - Cabinet C303

## GOALS

Tests and Web Performance Class aims to give students the necessary skills to improve the performance of web applications.

Also, aims to give students the necessary skills to create a set of tests to ensure that the developed application runs like it was supposed to.

## SKILLS TO ACQUIRE

1. Understand the importance of performance in the development of web applications;
2. Know the main performance metrics used to assess web applications performance;
3. Know the main performance tools used to assess the performance metrics;
4. Know the techniques used in code and assets optimization;
5. Understand the importance of testing applications;
6. Know and distinguish the several types of testing methods;
7. Know some tools and technologies used for testing;
8. Identify the needs of software test automation;
9. Define and develop a test strategy.

## SYLLABUS

### WEB PERFORMANCE PART

- M01 – Introduction to Web Performance;
- M02 – Performance Metrics;
- M03 – Performance Tools;
- M04 – Assets Optimization;
- M05 – Code Optimization;
- M06 – Progressive Web Apps (PWA).

### TESTS PART

- M07 – Introduction to Tests
- M08 – User Interface and User Experience (UI/UX) Tests;
- M09 – Unit Tests;
- M10 – API Tests;
- M11 – Integration Tests;
- M12 – Continuous Integration and Continuous Delivery (CI/CD).

## ASSESSMENT

### # Distributed Evaluation

Partial Exam (Web Performance) (20%) - **Repeatable Moment (minimum: 8V)**

Partial Exam (Tests) (20%) – **Repeatable Moment (minimum: 8V)**

WebPII Project (50%) – **Non Repeatable Moment - (minimum: 10V)**

Classroom Worksheets (10%) – **Non Repeatable Moment**

## ASSESSMENT

### # Normal Season

Global Exam (40%) – **(minimum: 10V)**

WebPll Project (50%) – **The grade transits from the distributed evaluation**

Classroom Works (10%) – **The grade transits from the distributed evaluation**

### # Appeal Season

Global Exam (40%) – **(minimum: 10V)**

WebPll Project (50%) - **The grade transits from the distributed evaluation**

Classroom Works (10%) – **The grade transits from the distributed evaluation**

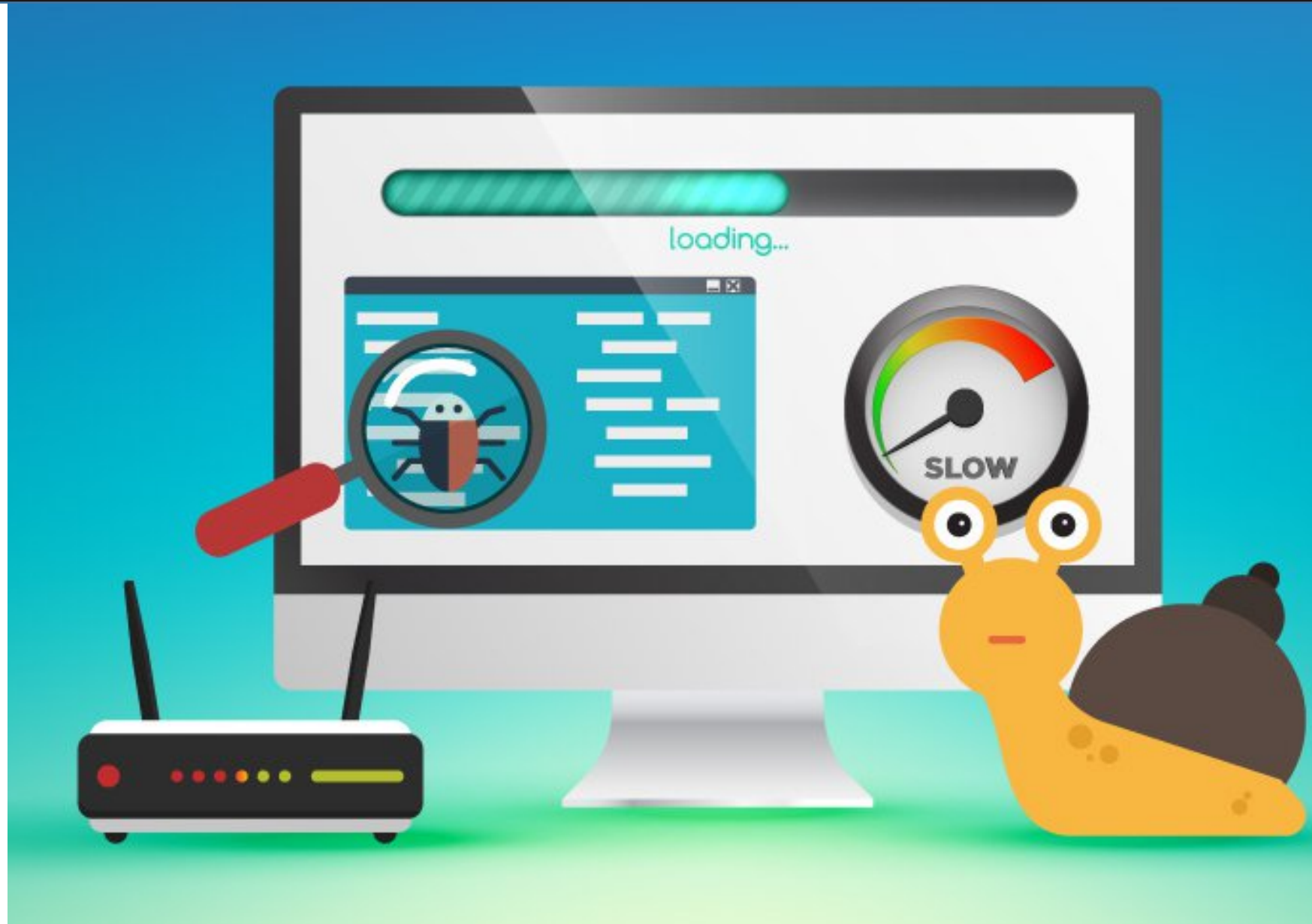


## ASSESSMENT

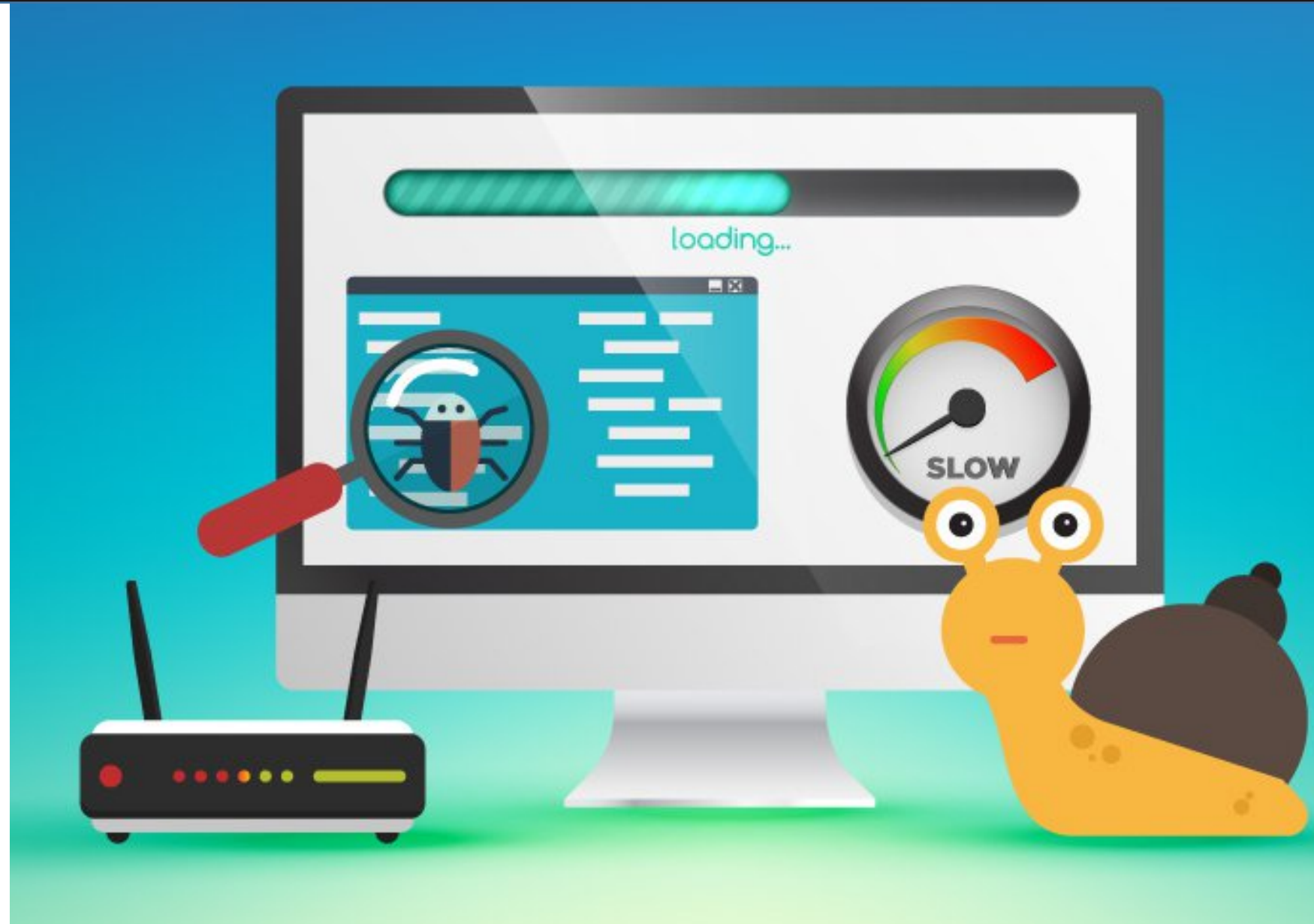
### Final Remarks

- The WebPIL TPW component has a minimum grade of 10 values;
- The partial exams on the distributed evaluation has a minimum grade of 8 values;
- The global exam on the normal or appeal season has a minimum grade of 10 values;
- The grade of project and the classroom works maintains during the normal and appeal season;
- The non-fulfilment of the minimum grade in the project can imply immediate disapproval of the student.  
In this case, to be approved the student has to obtain the maximum grade in all other components to obtain a final grade of 10 values;
- The student have only two opportunities (Distributed Evaluation + Appeal Season or Normal Season + Appeal Season).

PUC



FUC



## Bibliography

- [1] Wagner, J. (2017). Web Performance in Action – Building Fast Web Pages (1<sup>st</sup> Ed.) Shelter Island: Manning Publications Co. - ISBN: 978-161-729-377-1;
- [2] Stefanov, S. (2012). Web Performance Daybook (1<sup>st</sup> Ed.) O' Reilly: California – ISBN: 978-144-933-291-4.