

Powering the Python Programming Laboratory

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Python in Education

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How are students assessed in programming laboratory?

Environment

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Moodle is a free, online Learning Management system enabling educators to create their own private website filled with dynamic courses that extend learning, any time, anywhere.

Moodle 3.8

[https://docs.moodle.org/38/en/Installing Moodle](https://docs.moodle.org/38/en/Installing_Moodle)

<https://vpl.dis.ulpgc.es/>



The VPL-Jail-System is an open software execution system and requires a specific environment.

VPL 3.3

List of programming languages can be done using MOODLE VPL

Ada C C++ C# FORTRAN Haskell

java

Octave Pascal Perl PHP Prolog

Python

Ruby Scheme SQL and VHDL

Moodle and the jail system are released under the [GNU/GPL License](#)

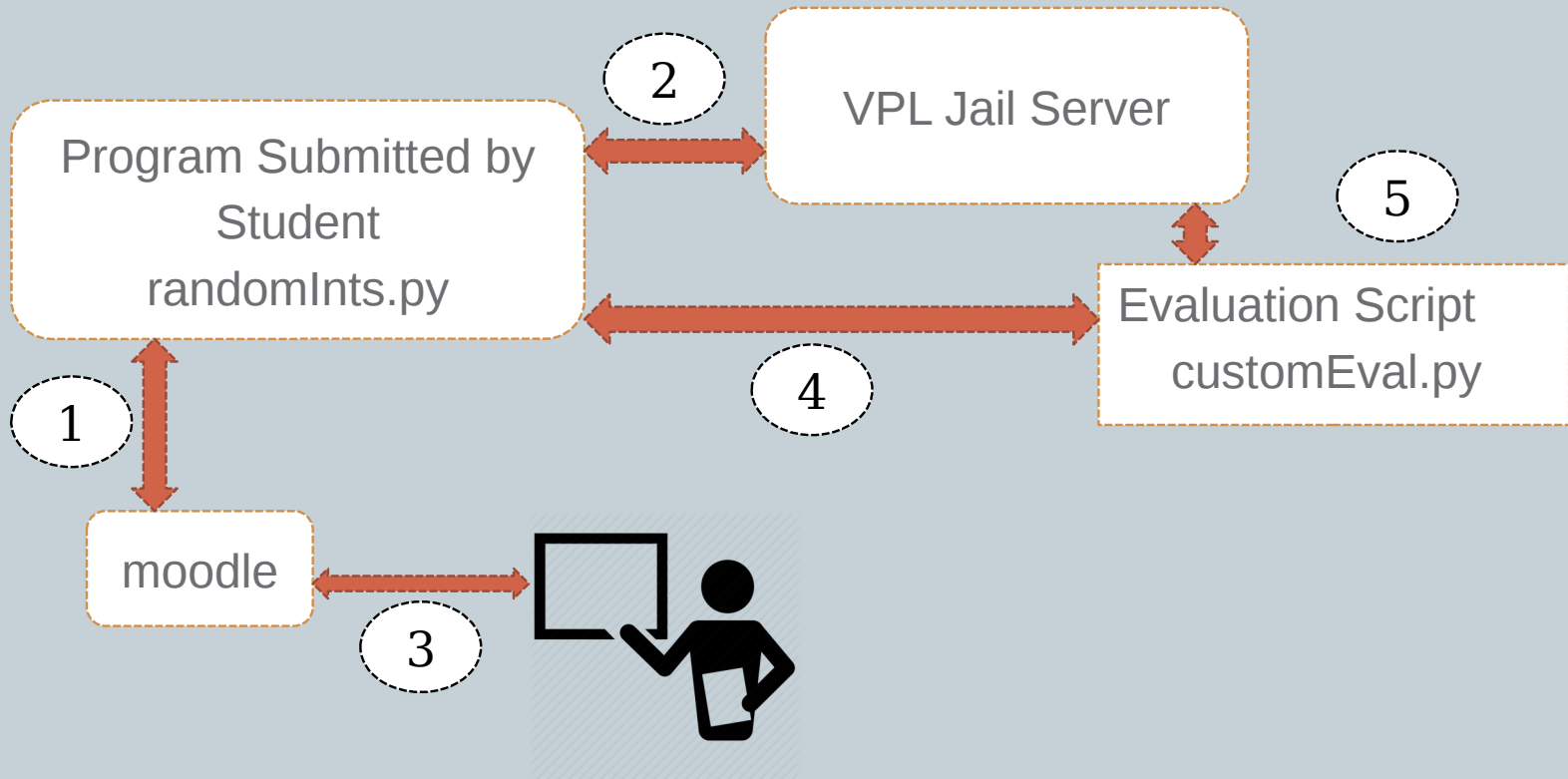
Features

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- No additional software's are required to execute the program.
- Students are able to edit and run their programs interactively in their browser
- Faculty can review the programs by running test activity's (Test cases and Test Script)
- Plagiarism checking - Similarity of programs can be checked
- Allocate marks based on the different execution level (Marks constraints are set at the evaluation script by the faculty)
- Restrict students pasting text from external sources
- Restrict students to submit the program on due date.

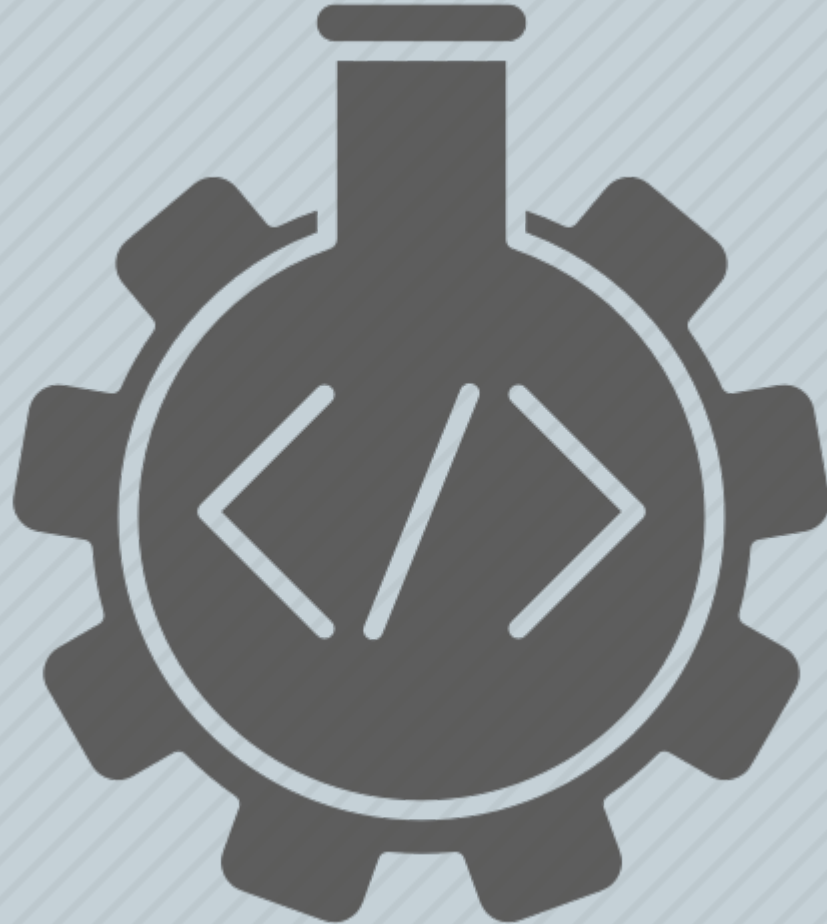
How it works?

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Demonstration

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Conclusion



- Since this environment is accessible from anytime and anywhere, students can do their laboratory work at their convenient time.
- This platform will help the students to improve their testing and debugging skills.
- Most of the time evaluating the Lab programs are tedious one for the faculty but this platform reduces the workload of the faculty and also it perfectly evaluates students programming skills.

