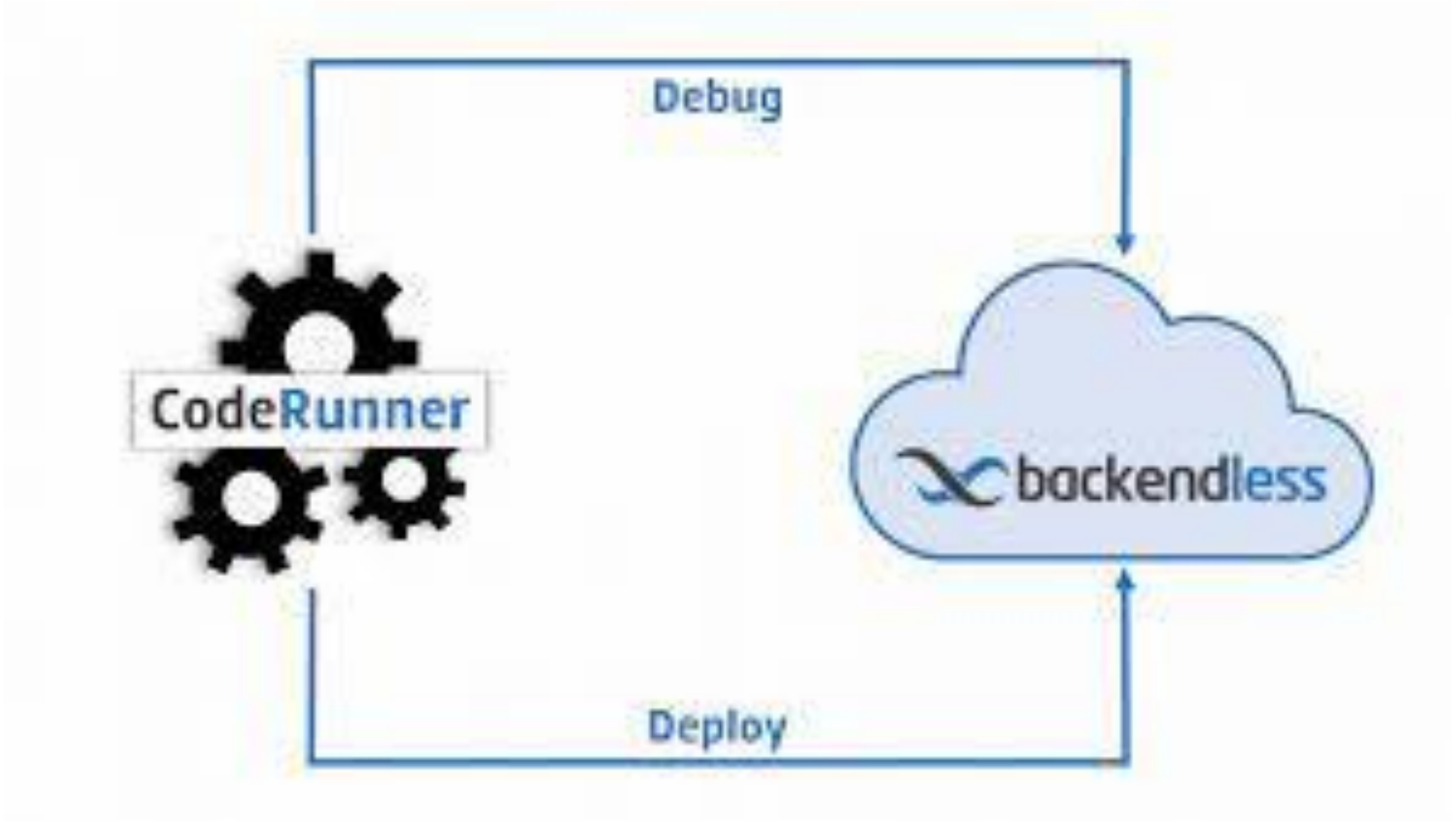
Code runner



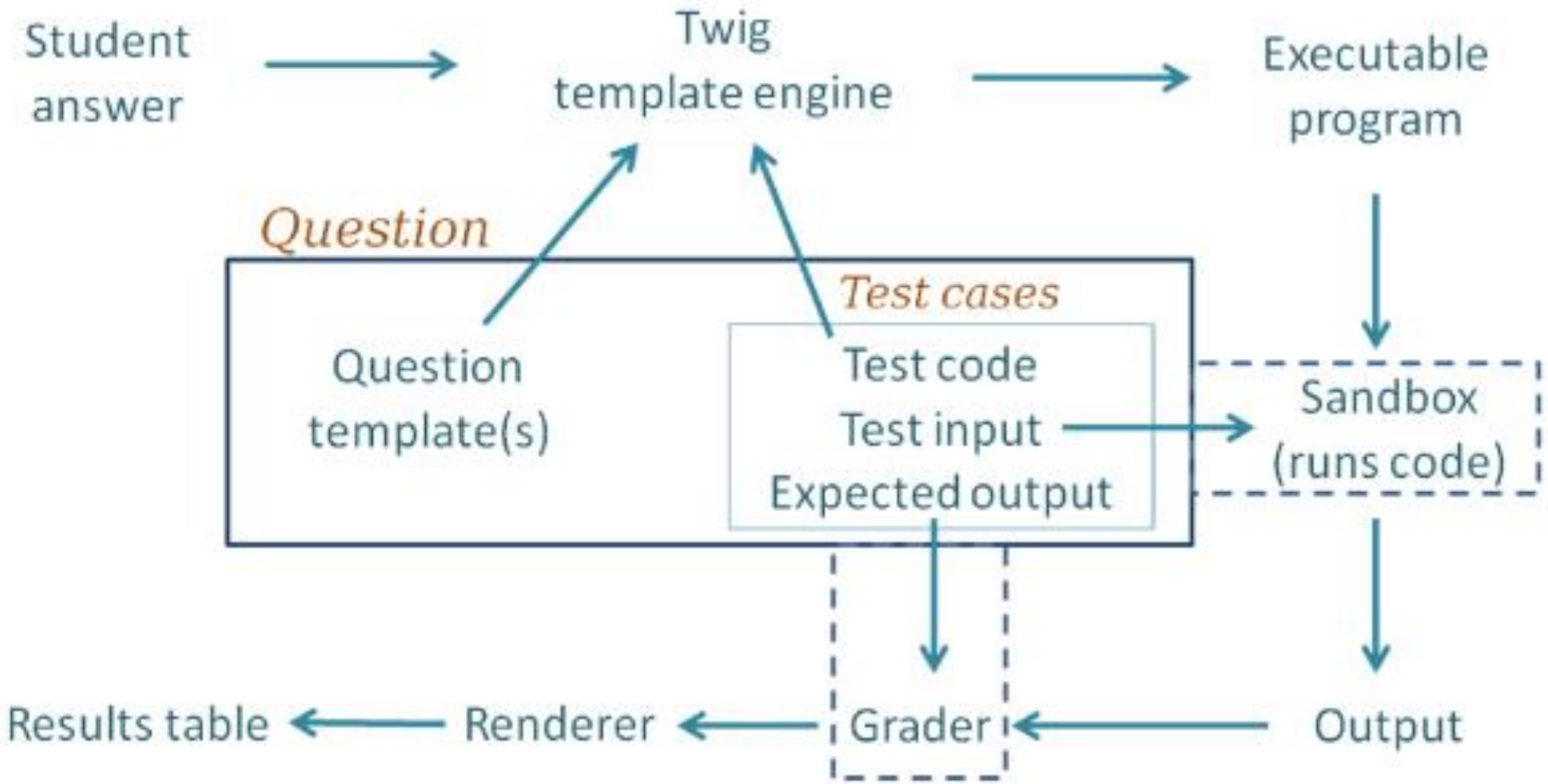
CodeRunner

CodeRunner is a Moodle question type that allows teachers to run a program in order to grade a student's answer. By far the most common use of CodeRunner is in programming courses where students are asked to write program code to some specification and that code is then graded by running it in a series of tests. CodeRunner questions have also been used in other areas of computer science and engineering to grade questions in which a program must be used to assess correctness.

CodeRunner supports the following languages: Python2 (considered obsolete), Python3, C, C++, Java, PHP, Pascal, JavaScript (NodeJS), Octave and Matlab. However, other languages are easily supported without altering the source code of either CodeRunner or the Jobe server just by scripting the execution of the new language within a Python-based question.

The Architecture of CodeRunner

The block diagram below shows the components of CodeRunner and the path taken as a student submission is graded.



Question 1

Correct

Mark 1.00 out of 1.00

Flag question

Write a Python3 function *sqr(n)* that returns the square of its numeric parameter *n*.

For example:

Test	Result
`print(sqr(-3))`	9
`print(sqr(11))`	121

Answer:

```
1  def sqr(n):
2      return n * n
```

Check

Test	Expected	Got	
`print(sqr(-3))`	9	9	✓
`print(sqr(11))`	121	121	✓
`print(sqr(-4))`	16	16	✓
`print(sqr(0))`	0	0	✓

Passed all tests! ✓

Correct

Write a C function with signature *int sqr(int n)* that returns the square of its parameter *n*.

For example:

Test	Result
`printf("%d\n", sqr(-11))`	121
`printf("%d\n", sqr(9))`	81

Answer: (penalty regime: 0, 10, 20, ... %)

```
1
```