

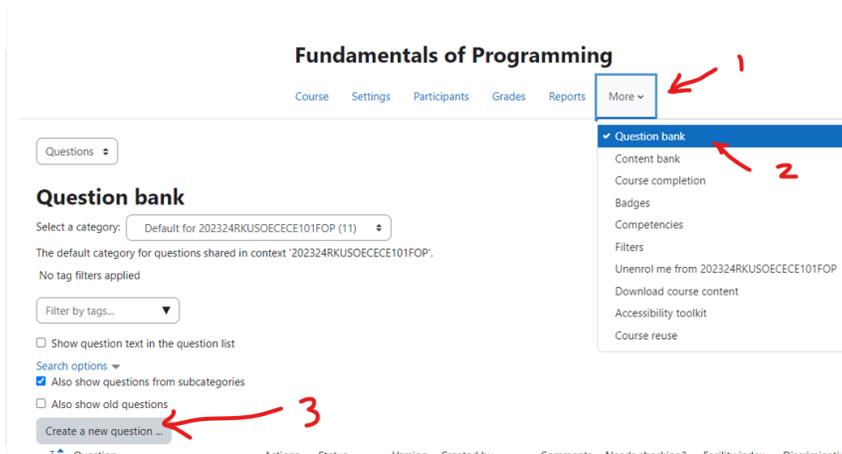
Coderunner Guide for PHP

Assumption:

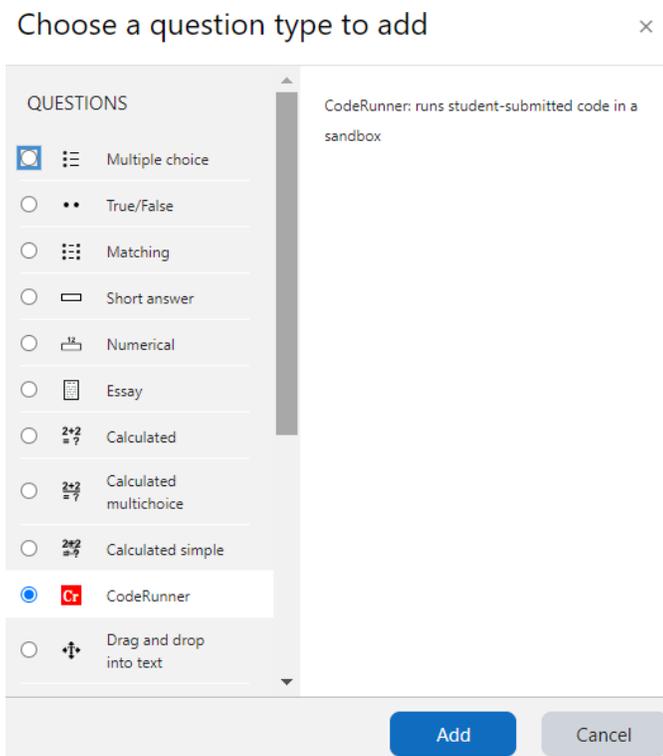
- You have a local instance of moodle server with coderunner plugin
- PHP programming language is used to design assessment using coderunner

Q1: Write a PHP script to print "Hello World"

- Open your course on local moodle instance
- Under "more", you can find option "Question Bank" to create new question

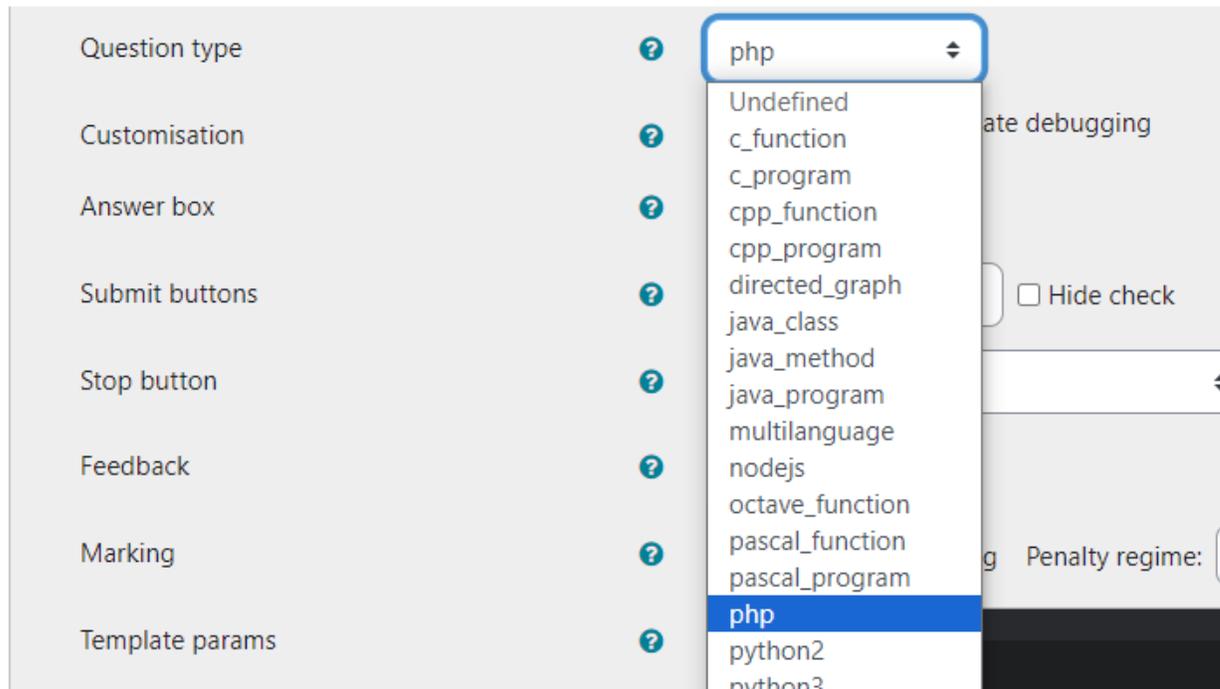


When you click on create new question, you will find the below screenshot and click on "Add" button:



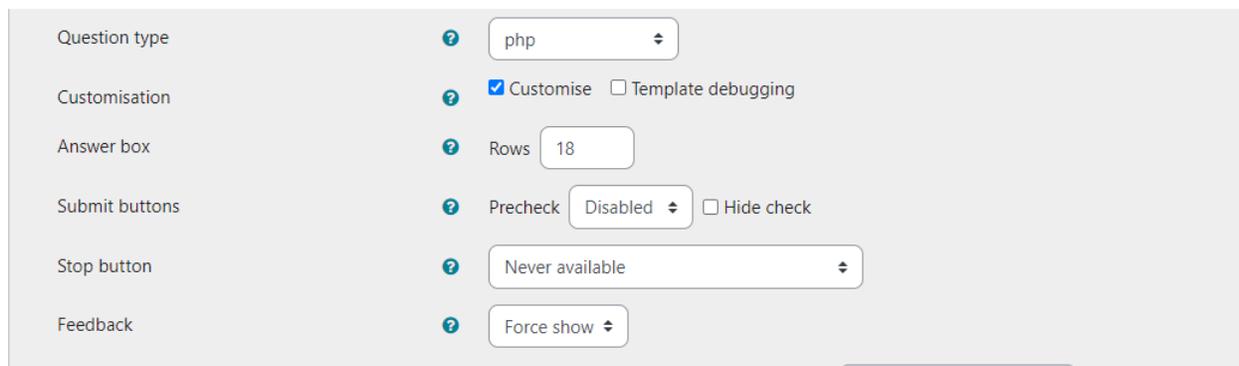
Adding a CodeRunner question

CodeRunner question type



- Select “php” and follow below screenshot

CodeRunner question type



- Tick mark “Custom” and add the following script to custom template as shown in below image:

```

{{ STUDENT_ANSWER }}

{% for TEST in TESTCASES %}

{{ TEST.testcode }}

{% if not loop.last %}

echo SEPARATOR;

{% endif %}

{% endfor %}

```

Customisation

```

Template
1 {{ STUDENT_ANSWER }}
2
3
4 {% for TEST in TESTCASES %}
5 {{ TEST.testcode }}
6 {% if not loop.last %}
7 echo SEPARATOR;
8 {% endif %}
9 {% endfor %}

```

- Expand “Test cases” and define program input and output as per problem definition:

Test cases

Test case 1	?	
Standard Input	?	
Expected output	?	Hello World
Extra template data	?	

Keep all the other settings as it is and click on “Save Changes”

Now, the above code runner question is added in your question bank.

Create a new question ...

Question	Actions	Status	Version	Created by	Comments	Needs checking?	Facility index	Discriminative efficiency	Usage	Last used	Modified by
Question name / ID number				First name / Surname / Date							First name / Surname / Date
<input type="checkbox"/> PHP-Question 1 (Print Hello World)	Edit	Ready	v5	Kamlesh Patel 24 August 2023, 10:24 AM	0	-	N/A	N/A	0	Never	Kamlesh Patel 24 August 2023, 10:24 AM
<input type="checkbox"/> PHP-UDF-1	Edit	Draft	v8	Kamlesh Patel 22 August 2023, 3:05 PM	0	-	N/A	N/A	0	Never	Kamlesh Patel 22 August 2023, 3:05 PM

With selected -

You can preview the question as shown in below screenshot, and in black window, students have to write the php script to generate a defined output and click on the “Check” button to execute and compare with all defined test cases.

PHP-Question 1 (Print Hello World) Version 5 (latest)

Question 1
Not complete
Marked out of 5.00

Write a PHP code to print hello world.

Answer: (penalty regime: 0 %)

```
1 <?php
2 echo "Hello World"
3 ?>
```

Check

After check button, server will compile and execute with test-cases and respond.

PHP-Question 1 (Print Hello World) Version 5 (latest)

Question 1
Correct
Mark 5.00 out of 5.00

Write a PHP code to print hello world.

Answer: (penalty regime: 0 %)

```
1 <?php
2 echo "Hello World"
3 ?>
```

Check

Expected	Got
✓ Hello world	Hello world ✓

Run using the University of Canterbury's Jobe server. This is for initial testing only. Please set up your own Jobe server as soon as possible. See here.

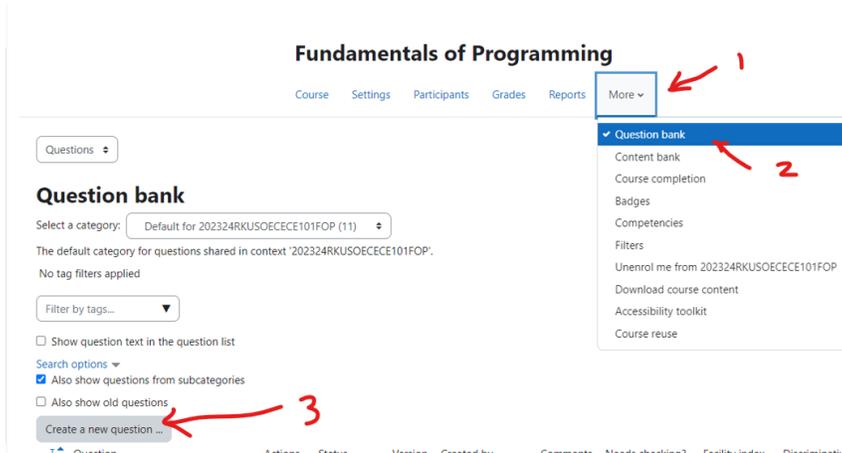
Passed all tests! ✓

Correct
Marks for this submission: 5.00/5.00.

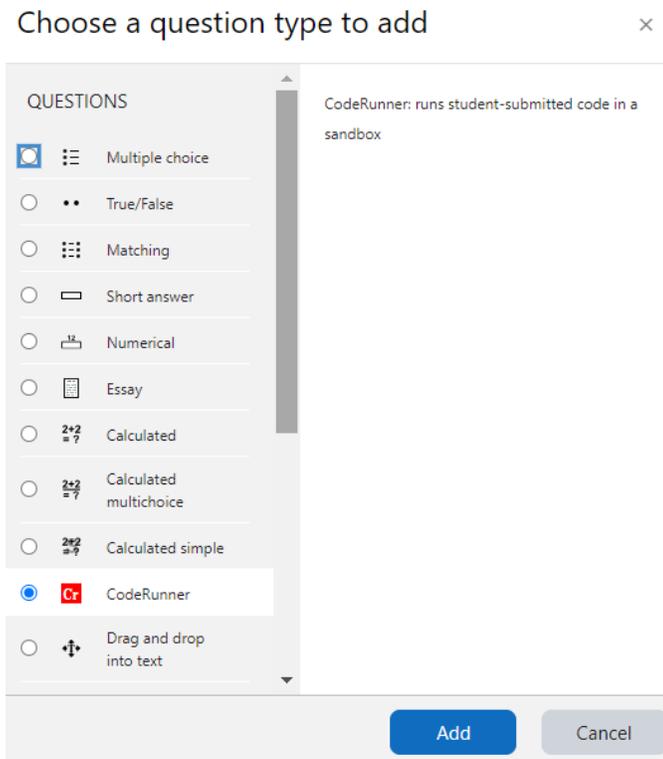
We can show one of the test case along with question, also, we can hide some of the test-case too.

Q2: Write a PHP script to compute sum of two numbers

- Open your course on local moodle instance
- Under “more”, you can find option “Question Bank” to create new question

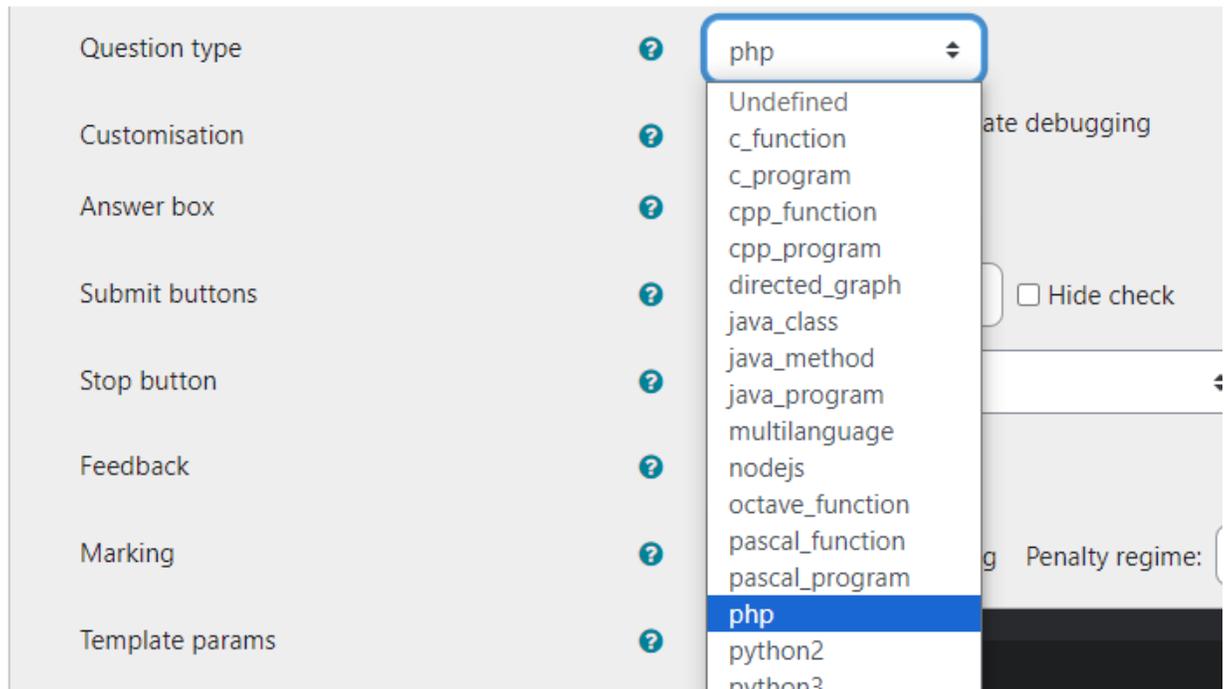


When you click on create new question, you will find the below screenshot and click on “Add” button:



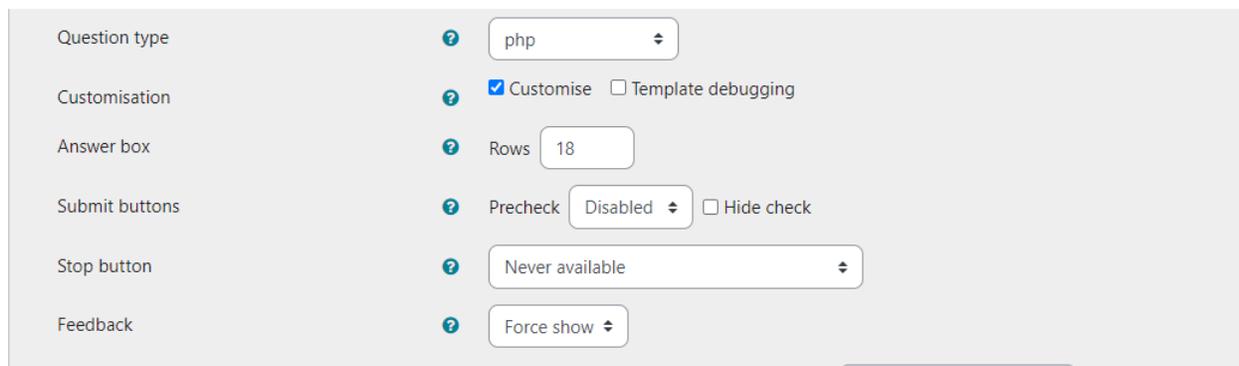
Adding a CodeRunner question

CodeRunner question type



- Select “php” and follow below screenshot

CodeRunner question type



- Tick mark “Custom” and add the following script to custom template as shown in below image:

```
{{ STUDENT_ANSWER }}  
  
{% for TEST in TESTCASES %}  
  
{{ TEST.testcode }}  
  
{% if not loop.last %}  
  
echo SEPARATOR;  
  
{% endif %}  
  
{% endfor %}
```

Customisation

```
1 {{ STUDENT_ANSWER }}  
2  
3  
4 {% for TEST in TESTCASES %}  
5 {{ TEST.testcode }}  
6 {% if not loop.last %}  
7 echo SEPARATOR;  
8 {% endif %}  
9 {% endfor %}
```

- Expand "Test cases" and define program input and output as per problem definition:

General

Current category	PHP Question Bank (4)
Version	Version 2 Created by Kamlesh Patel on Thursday, 24 August 2023, 10:35 AM
Question name	php-Addition of two numbers
Question text	<p>Write a php script to compute sum of two numbers.</p>

Test cases

Test case 1	<input type="text" value="echo add(10,20);"/>
Standard Input	<input type="text"/>
Expected output	<input type="text" value="30"/>
Extra template data	<input type="text"/>
Test properties:	<input checked="" type="checkbox"/> Use as example Display Show <input type="checkbox"/> Hide rest if fail

When we preview question, the following screenshot appear:

Cr php-Addition of two numbers Version 3 (latest)

Question 1
Not complete
Marked out of 5.00

Write a php script to compute sum of two numbers.

For example:

Test	Result
echo add(10,20);	30

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

Now, students have to write the php script to generate define outoput in given window and click on “check” button to compile script and passes all defined test cases:

Cr php-Addition of two numbers Version 3 (latest)

Question 1
Not complete
Marked out of 5.00

Write a php script to compute sum of two numbers.

For example:

Test	Result
echo add(10,20);	30

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

```
1 <?php
2 function add($a, $b)
3 {
4     return $a+$b;
5 }
6
```

If response submitted is error free and passes all defined test cases, the following screen will appear:

php-Addition of two numbers Version 3 (latest)

Question 1

Correct

Mark 5.00 out of 5.00

Write a php script to compute sum of two numbers.

For example:

Test	Result
echo add(10,20);	30

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

```
1 <?php
2 function add($a, $b)
3 {
4     return $a+$b;
5 }
6
```

Check

	Test	Expected	Got	
✓	echo add(10,20);	30	30	✓

Run using the University of Canterbury's Jobe server. This is for initial testing only. Please set up your own Jobe server as soon as possible. See here.

Passed all tests! ✓

Correct

Marks for this submission: 5.00/5.00.

Q3: Write a PHP script to check whether the number is odd or even.

- Open your course on local moodle instance
- Under "more", you can find option "Question Bank" to create new question

Fundamentals of Programming

Course Settings Participants Grades Reports More

Questions

Question bank

Select a category: Default for 202324RKUSOECECE101FOP (11)

The default category for questions shared in context '202324RKUSOECECE101FOP':

No tag filters applied

Filter by tags...

Show question text in the question list

Search options

Also show questions from subcategories

Also show old questions

Create a new question...

Question bank dropdown menu:

- Question bank
- Content bank
- Course completion
- Badges
- Competencies
- Filters
- Unenrol me from 202324RKUSOECECE101FOP
- Download course content
- Accessibility toolkit
- Course reuse

When you click on create new question, you will find the below screenshot and click on "Add" button:

Choose a question type to add

QUESTIONS

- Multiple choice
- True/False
- Matching
- Short answer
- Numerical
- Essay
- Calculated
- Calculated multichoice
- Calculated simple
- CodeRunner
- Drag and drop into text

CodeRunner: runs student-submitted code in a sandbox

Add Cancel

CodeRunner question type

Question type 1

Customisation Customise Template debugging 2

Answer box Rows

Submit buttons Precheck Hide check

Stop button

Feedback

Marking All-or-nothing grading Penalty regime:

Template params

```
1
```

Template param controls Hoist template parameters Twig all Preprocessor

Question type details

Customisation 3

Template

```
1 {{ STUDENT_ANSWER }}
2
3
4 {% for TEST in TESTCASES %}
5 {{ TEST.testcode }}
6 {% if not loop.last %}
7 echo SEPARATOR;
8 {% endif %}
9 {% endfor %}
```

1. Select "Question type" to "php".
2. Check "Customise" checkbox.
3. Verify "Template" as given below.

```
{{ STUDENT_ANSWER }}
{% for TEST in TESTCASES %}
{{ TEST.testcode }}
{% if not loop.last %}
echo SEPARATOR;
{% endif %}
{% endfor %}
```

General

Current category: PHP Question Bank (4)

Version: Version 6
Created by Kamlesh Patel on Thursday, 24 August 2023, 12:42 PM

Question name: Write a code to check whether the number is odd or even.

Question text: You need to create function "oddeven" for checking odd OR even number.

Question status: Ready

- Write a Question definition and description.

Test cases

Test case 1: `echo oddeven(10)."\n";
echo oddeven(7);`

Standard Input:

Expected output: `10 is even.
7 is odd.`

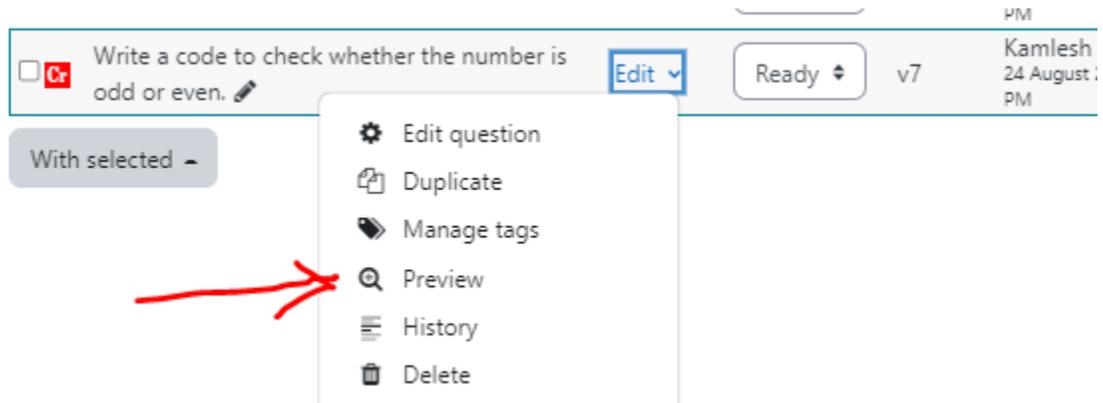
Extra template data:

Test properties: Use as example Display Show Hide rest if fail Mark 1.000 Ord

Blanks for 3 more choices

Support files

- Add test case and output as above. AND **Save** the question.



- Now click on "Edit" and click on "Preview"

Question 1
Correct
Mark 5.00 out of 5.00

You need to create function "oddeven" for checking odd OR even number.

Answer: (penalty regime: 0 %)

```
1 <?php
2
3 function oddeven($a){
4     if ($a%2 == 0){
5         return $a." is even.";
6     }else {
7         return $a." is odd.";
8     }
9 }
```

1 →

2 →

Check

Test	Expected	Got	
✓ echo oddeven(10)."\n"; echo oddeven(7);	10 is even. 7 is odd.	10 is even. 7 is odd.	✓

Run using the University of Canterbury's Jobe server. This is for initial testing

Passed all tests! ✓

Correct

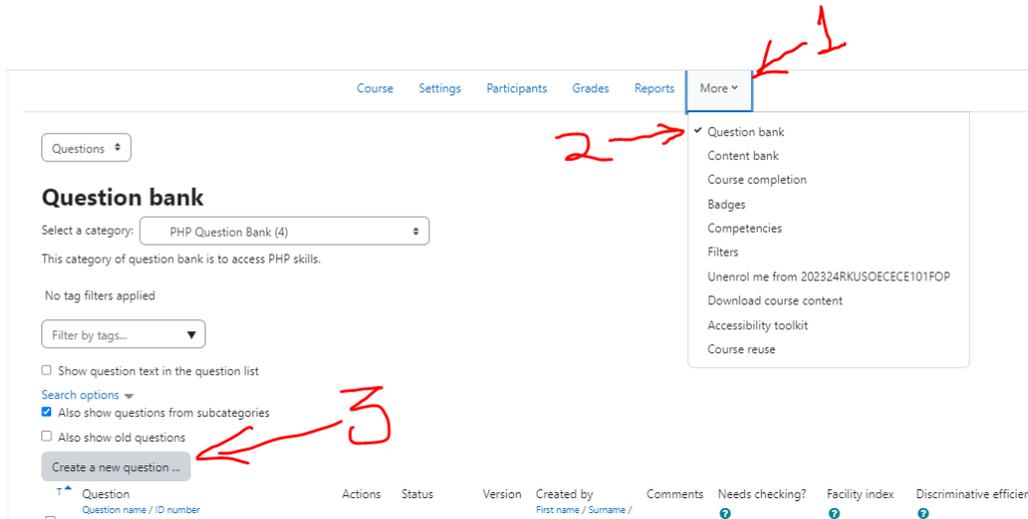
Marks for this submission: 5.00/5.00.

3 →

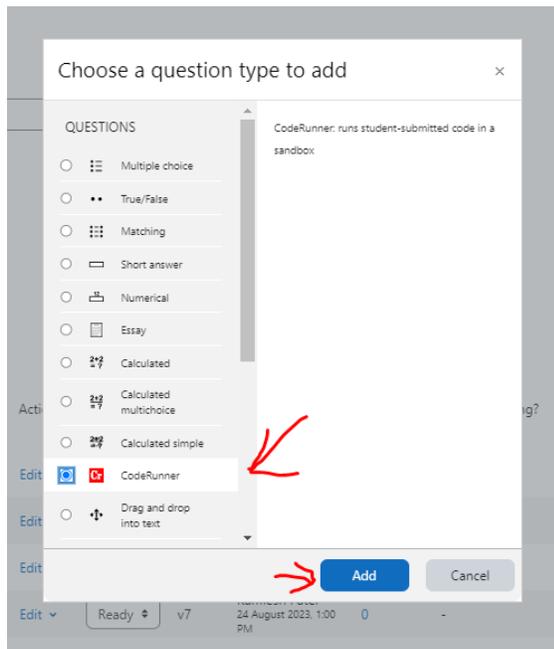
1. Write an Answer code.
2. Click on the "Check" button.
3. Check test cases correct OR not.

Q4: Write a PHP script to write 1 to 10 with a “for” loop.

- Open your course on local moodle instance



1. Click on “More”.
2. Click on “Question bank”
3. After that click on “Create a new question”



- Select “CodeRunner” and click on “Add”

CodeRunner question type

Question type 1

Customisation Customise Template debugging 2

Answer box Rows

Submit buttons Precheck Hide check

Stop button

Feedback

Marking All-or-nothing grading Penalty regime:

Template params

```
1
```

Template param controls Hoist template parameters Twig all Preprocessor

Question type details

Customisation 3

Template

```
1 {{ STUDENT_ANSWER }}
2
3
4 {% for TEST in TESTCASES %}
5 {{ TEST.testcode }}
6 {% if not loop.last %}
7 echo SEPARATOR;
8 {% endif %}
9 {% endfor %}
```

4. Select "Question type" to "php".
5. Check "Customise" checkbox.
6. Verify "Template" as given below.

```
{{ STUDENT_ANSWER }}
{% for TEST in TESTCASES %}
{{ TEST.testcode }}
{% if not loop.last %}
echo SEPARATOR;
{% endif %}
{% endfor %}
```

Question name: Write a PHP script to write 1 to 10 with a "for" loop.

Question text: Write a PHP script to write 1 to 10 with a "for" loop. and output should be comma separated.

- Write question and descriptions.

Test cases

Test case 1	
Standard Input	
Expected output	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,
Extra template data	
Test properties:	<input type="checkbox"/> Use as example Display Show <input type="checkbox"/> Hide rest if fail Mark 1.000

Blanks for 3 more choices

- Add test cases as above.
- And "save" question.

Write a PHP script to write 1 to 10 with a "for" loop. **Edit** Ready v2 Kamlesh 24 August PM

- Edit question
- Duplicate
- Manage tags
- Preview
- History
- Delete

- Click on "Edit" and "Preview"

Question 1
Correct
Mark 5.00 out of 5.00

Write a PHP script to write 1 to 10 with a "for" loop, and output should be

Answer: (penalty regime: 0 %)

```
1 <?php
2 for ($x = 1; $x <= 10; $x++) {
3     echo $x.", ";
4 }
```

Check

Expected	Got	
✓ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,	1, 2, 3, 4, 5, 6, 7, 8, 9, 10,	✓

Run using the University of Canterbury's Jobe server. This is for initial testi

Passed all tests! ✓

Correct
Marks for this submission: 5.00/5.00.

1. Write Answer code .
2. Click on "Check" button
3. Check output.

Q4: Write a PHP array.

- Open your course on local moodle instance

Course Settings Participants Grades Reports **More**

- ✓ Question bank
- Content bank
- Course completion
- Badges
- Competencies
- Filters
- Unenrol me from 202324RKHUSOECECE101FOP
- Download course content
- Accessibility toolkit
- Course reuse

Question bank

Select a category: PHP Question Bank (4)

This category of question bank is to access PHP skills.

No tag filters applied

Filter by tags...

Show question text in the question list

Search options

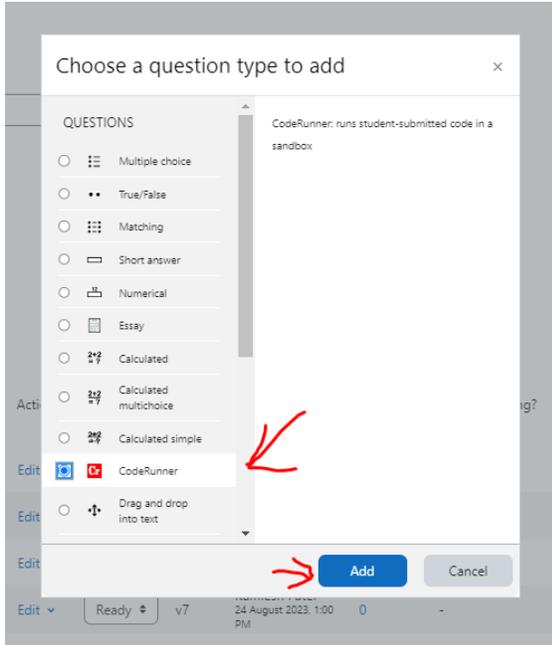
Also show questions from subcategories

Also show old questions

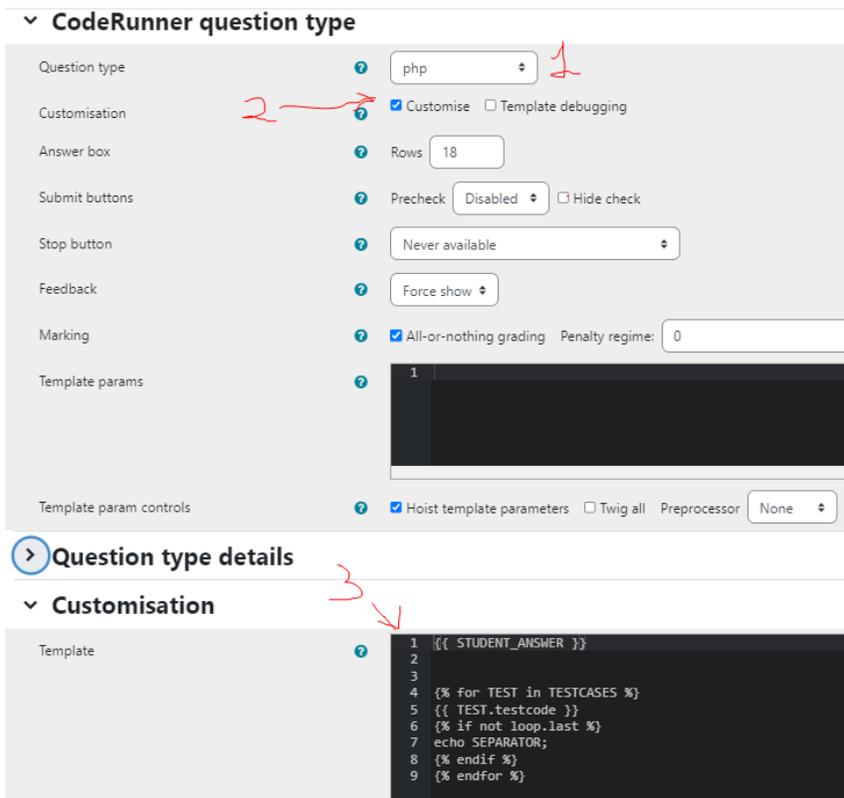
Create a new question ...

Question	Actions	Status	Version	Created by	Comments	Needs checking?	Facility index	Discriminative efficien
Question name / ID number				First name / Surname /				

4. Click on "More".
5. Click on "Question bank"
6. After that click on "Create a new question"



- Select "CodeRunner" and click on "Add"



7. Select "Question type" to "php".

8. Check “Customise” checkbox.
9. Verify “Template” as given below.

```
{} STUDENT_ANSWER {}  
{% for TEST in TESTCASES %}  
{} TEST.testcode {}  
{% if not loop.last %}  
echo SEPARATOR;  
{% endif %}  
{% endfor %}
```

General

Category: PHP Question Bank (5)

Question name: Write a PHP array.

Question text: Write an associative array named *spersion* that stores personal information. It includes the person's name, surname, and age. The program then echoes (prints) the values stored in the associative array, concatenating the name, surname, and age using commas to separate them. The output would display the person's name, followed by their surname, and finally their age, all separated by commas.

- Write “question name” and “question text”.

Write a PHP array. Edit Ready v3

Write a PHP script to loop. Edit question Duplicate Manage tags Preview History Ready v2

With selected -

- To verify the question click on “Edit” and then “Preview”.

Question 1

Correct
Mark 5.00 out of 5.00

Write an associative array named `$persion` that stores personal information. It includes the person's name, surname, and age. The program t separate them. The output would display the person's name, followed by their surname, and finally their age, all separated by commas.

Answer: (penalty regime: 0 %)

```
1 <?php
2 $persion = array(
3     'name' => "john",
4     'surname' => "due",
5     'age' => 30
6 );
7 echo $persion['name'] . "," . $persion['surname'] . "," . $persion['age'];
```

Check

	Expected	Got	
✓	john,due,30	john,due,30	✓

Run using the University of Canterbury's Jobe server. This is for initial testing only. Please set up your own Jobe server as soon as possible. S
Passed all tests! ✓

Correct

Marks for this submission: 5.00/5.00.

- Write code
- Click on "Check"
- Verify test cases.

Note: similarly, teachers can add many such coderunner type questions to check PHP skills which are automatically graded by the platform which save lots of teachers time.