





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

	Fundamentals of	Program	mmir	ng l		
	Course Settings Participants	Grades	Reports	More ~		
				✓ Question bank		
Questions 🗢				Content bank		
				Course completion		
Question bank				Badges		
elect a category: Default for 202324RKUS	OECECE101FOP (11) +			Competencies		
he default category for questions shared in co	intext '202324RKUSOECECE101FOP'.			Filters		
No tag filters applied				Unenrol me from 202324RKUSOECECE101FOP		
				Download course content		
Filter by tags 🔻				Accessibility toolkit		
Show question text in the question list				Course reuse		
earch options 👻 Also show questions from subcategories						
Also show old questions	- 2					
Create a new question						
T ^A Outsties	Autiana Chatan Vanian Carth			Marala developado - Paullier Indano - Disadasiando		

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

 \times



Choose a question type to add









Adding a CodeRunner question®

CodeRunner question type

Ø	php	÷
0	Undefined c_function	ate debugging
0	cpp_function	
0	cpp_program directed_graph java_class	Hide check
0	java_method	4
Ø	nodejs octave_function	
0	pascal_function pascal_program	g Penalty regime: 🤇
0	php python2	
	0 0 0 0 0 0 0 0	 php Undefined c_function c_program cpp_function cpp_program directed_graph java_class java_method java_program multilanguage nodejs octave_function pascal_function pascal_program php python2 python3

Select "php" and follow below screenshot _

CodeRunner question type

Question type	0	php 🗢
Customisation	0	Customise Demplate debugging
Answer box	0	Rows 18
Submit buttons	0	Precheck Disabled 🗢 🗆 Hide check
Stop button	0	Never available
Feedback	0	Force show 🗢

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

Co-funded by the Erasmus+ Programme of the European Union	TEAL2.	SUPPORT & DEVELOPMENT CENTER	RKUNIVERSITY
STUDENT ANSWER 3			
{% for TEST in TESTCASES %}			
{{ TEST.testcode }}			
{% if not loop.last %}			
echo SEPARATOR;			
{% endif %}			
{% endfor %}			
 Customisation 			

 Customisation 	
Template	<pre> 1</pre>

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

 Test cases 		
Test case 1	0	
Standard Input	0	
Expected output	0	Hello World
Extra template data	0	

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

т ^	Question Question name / ID number	Actions	Status	Version	Created by First name / Surname / Date	Comments	Needs checking?	Facility index 7	Discriminative efficiency	Usage 🕜	Last used	Modified by First name / Surname / Date
🗆 Cr	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
🗆 Cr	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





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	Write a PHP code to print hello world.
Marked out of	Answer: (penalty regime: 0 %)
5.00	1 php<br 2 echo "Hello World" 3 Ja
	۲: د ۲:
	Check

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

Question 1 Correct	Write	a PHP code to	print hello wo	rld.	
Mark 5.00 out of	Answ	er: (penalty re	gime: 0 %)		
5.00	1 2 3	<pre>k?php echo "Hellc }</pre>) World"		
		_			
	Che	ck			
		Expected	Got		
	~	Hello World	Hello World	~	
	Run	using the Unive	ersity of Cante	rbury'	/s Jobe server. This is for initial testing only. Please set up your own Jobe server as soon as possible. See here.
	Passe	ed all tests! 🗸			
	Correct Marks	for this submi	ssion: 5.00/5.0	0.	

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

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

Choose a question type to add

- 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:

×

		•			
QL	JESTIC	ONS	Â	CodeRunner: runs student-submit	tted code in a
	IΞ	Multiple choice		sandbox	
0	••	True/False			
0	E	Matching			
0		Short answer			
0	12	Numerical			
0		Essay			
0	2+2 = ?	Calculated			
0	<u>2+2</u> = ?	Calculated multichoice			
0	2#2 ⇒-?	Calculated simple			
0	Cr	CodeRunner			
0	٠ţ٠	Drag and drop into text	-		
				Add	Cancel









Adding a CodeRunner question®

CodeRunner question type

Question type	0	php :	•
Customisation	Ø	Undefined c_function	ate debugging
Answer box	0	cpp_function	
Submit buttons	0	cpp_program directed_graph java_class	Hide check
Stop button	0	java_method java program	:
Feedback	Ø	nodejs octave function	
Marking	0	pascal_function pascal_program	g Penalty regime: (
Template params	0	php python2 python3	

Select "php" and follow below screenshot

CodeRunner question type

Question type	0	php 🗢
Customisation	0	✓ Customise □ Template debugging
Answer box	0	Rows 18
Submit buttons	0	Precheck Disabled 🗢 🗆 Hide check
Stop button	0	Never available 🗢
Feedback	0	Force show 🗢

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

Co-funded by the Erasmus+ Programme of the European Union	TEAL2.	SCC SUPPORT & DEVELOPMENT CENTER	RKUNIVERSITY
{{ STUDENT_ANSWER }}			
{% for TEST in TESTCASES %}			
{{ TEST.testcode }}			
{% if not loop.last %}			
echo SEPARATOR;			
{% endif %}			
{% endfor %}			
 Customisation 			

 Customisation 	
Template	<pre></pre>

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

∽ General

Current category	PHP Question Bank (4)
Version <u>Ve</u>	ersion 2 reated by Kamlesh Patel on Thursday, 24 August 2023, 10:35 AM
Question name 0	php-Addition of two numbers
Question text	↓ A • B I ≔ ≡ ≡ ∞ ‰ © ⊠ ₽ ♥ ₩ ₽ ₩
v	Write a php script to compute sum of two numbers.

✓ Test cases

Test case 1	0	echo add(10,20);
Standard Input	0	
Expected output	0	30
Extra template data	0	
Test properties:	0	Use as example Display Show Chief Hide rest if fail







When we preview question, the following screenshot appear:

n 1 Iplete	Write a php script	to comput	e sum of two numbe	rs.	
Marked out of 5.00	Test	Result			
	echo add(10,20);	30			

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:

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

Question 1 Not complete	Write a php script to com For example:						
5.00	Test	Result					
	echo add(10,20);	30					
	Answer: (penalty regime: 10, 20, %)						
	1 php<br 2 function a 3 v {	add(\$a,					
	4 return 5 }	n \$a+\$b;					
	6						

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









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

Writ	e a php script t	o compute si	um of t	two n	umbe	
For	example:					
Tes	t	Result				
ech	o add(10,20);	30				
Ans	wer: (penalty r	regime: 10, 20), %)			
1 3 4 5 6	<pre>strppp function a { return } ;</pre>	dd(\$a, \$b) ≬ \$a+\$b;				
Ch	neck					
	_	-	ctod	Gat		
	Test	E Market of	ctea	GOL		
	Test	Expe		20		
~	echo add(10	e,20); 30		30	~	
✓ Rur	Test echo add(10 n using the Univ	e,20); 30 versity of Car	iterbur	30 <mark>y's Jo</mark>	✓ be se	ur own Jobe server as soon as possible. See he
✓ Rur Pas	Test echo add(10 n using the Univ ised all tests!	e,20); 30 versity of Car	iterbur	30 <mark>y's Jo</mark>	✓ be se	rur own Jobe server as soon as possible. See he
₹ Rur Pas	Test cho add(1e n using the Unit used all tests!	e,20); 30 versity of Car	iterbur	30 y's Jo	✓ be ser	xur own Jobe server as soon as possible. See he

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

*** * * ***	Co-funded by the Erasmus+ Programme of the European Union	TECHNOLOGY ENABLED ACTIVE LEARNING	SUPPORT & DEVELOPMENT CENTER	RKUNIVERSITY
		Fundamentals of Programn	ning	
	Questions •	Course Settings Participants Grades Repo	V Question bank Content bank Course completion	
	Select a category: Default for 202324RKUSC The default category for questions shared in cor No tag filters applied	ececeto1FOP (11) • text '202324RKUSOECECE101FOP'.	Badges Competencies Filters Unenrol me from 202324RKUSOECECE101FOP	
	Filter by tags Filter by tags Show question text in the question list Search options		Download course content Accessibility toolkit Course reuse	
	Also show questions from subcategories Also show old questions Create a new question	- 3		

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











CodeRunner question type

Question type	Ø php 🕈
Customisation	🖉 Customise 🛛 Template debugging
Answer box	Rows 18
Submit buttons	✔ Precheck Disabled ◆ □ Hide check
Stop button	Never available
Feedback	Force show
Marking	 ✔ All-or-nothing grading Penalty regime: 0
Template params	
Template param controls	
> Question type details	
 Customisation 	
Template	<pre> ? 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 %} </pre>

- 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	<u>Version 6</u> Created by Kamlesh Patel on Thursday, 24 August 2023, 12:42 PM
Question name 0	Write a code to check whether the number is odd or even.
Question text 0	↓ A• B I ≔ ≡ ≡ ♥ % © ■ ₩ ₫ ■ ⊄ ₩ ₽ € ₩
	You need to create function "oddeven" for checking odd OR even number.
Ouestion status	Readv 🕈

- Write a Question definition and description.

Test cases

Test case 1	Ø	echo oddeven(10)."\n"; echo oddeven(7);
Standard Input	0	
Expected output	0	10 is even. 7 is odd.
Extra template data	0	
Test properties:	0	Use as example Display Show Hide rest if fail Mark 1.000 Orde
		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"



- 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"

	Choose a question type to add ×							
	QL	JESTI	ONS	CodeRunner: runs student-submitted code in a				
	IE Multiple choice True/False		Multiple choice	sandbox				
			True/False					
	0	H	Matching					
	0		Short answer					
	0	<u>-12</u>	Numerical					
	0		Essay					
	0	2+2 = 7	Calculated					
Acti	0	<u>2+2</u> = 7	Calculated multichoice		ıg?			
	0	2#2 ?	Calculated simple					
Edit		Cr	CodeRunner	L				
Edit	0	٠t·	Drag and drop into text	•				
Edit				Add Cancel				
Edit	~	Re	eady 🕈 🛛 v7	24 August 2023, 1:00 0 - PM				

- Select "CodeRunner" and click on "Add"









CodeRunner question type

Question type	Ø php 🕈
Customisation	🖉 Customise 🛛 Template debugging
Answer box	Rows 18
Submit buttons	✔ Precheck Disabled ◆ □ Hide check
Stop button	Never available
Feedback	Force show
Marking	 ✔ All-or-nothing grading Penalty regime: 0
Template params	
Template param controls	
> Question type details	
 Customisation 	
Template	<pre> 2 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 %} </pre>

- 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 %}



- Write question and descriptions.
- ✓ Test cases

	Test case 1	0	
	Standard Input	Ø	
Expected output		0	1,2,3,4,5,6,7,8,9,10,
	Extra template data	0	
	Test properties:	Ø	Use as example Display Show Hide rest if fail Mark 1.000
			Blanks for 3 more choices
	 Add test cases as a And "save" question 	bove. 1.	
1			PIWI PIWI
	Write a PHP script to w loop.	rite 1 to 10 wit	th a "for" Edit Ready PM
Ì		🌣 Edit que	estion
	With selected -	쉽 Duplicat	te
		📎 Manage	e tags
		Q Preview	
		Delete	
	- Click on "Edit" and "	Preview"	









	Question 1	Write a PHP script to write 1 to 10 with a "for" loop, and output should be \boldsymbol{c}						
	Mark 5.00 out	Answer: (penalty regime: 0 %)						
1	2~	1 php<br 2 v for (\$x = 1; \$x <= 3 echo \$x.","; 4 }	10; \$x++) {					
-		Emerated	C-1					
	צו	1 2 3 4 5 6 7 8 9 10	1 2 2 4 5 6 7 8 9 10 M					
		+ 1,2,5,4,5,0,7,8,5,10,	*)*)*)*)*)*)*)*)**					
		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

						\mathbf{V}	1	
	Course	Settings	Participa	ents Grades	Reports	More Y		
					~~	Question bank		
Questions 🕈				L	-	Content bank		
						Course completion		
Question bank						Badges		
Select a category: PHP Question Bank (4)		۰				Competencies		
This category of question bank is to access PHP skills.						Filters		
						Unenrol me from 20	2324RKUSOECEC	E101FOP
No tag filters applied						Download course co	ntent	
Filter by tags						Accessibility toolkit		
Inter by tags						Course reuse		
Show question text in the question list								
Search options 👻 Also show questions from subcategories	3							
Also show old questions								
Create a new question								
T Question Question name / ID number	Actions	Status	Version	Created by First name / Surname	Comments /	Needs checking?	Facility index	Discriminative effic









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

	Choose a question type to add x							<	
	QL	JESTI	ONS		CodeRunner: runs student-submitted code in a sandbox				
	0	ŧ≡	Multiple choice						
	0	••	True/False						
	0	=	Matching						
	0		Short answer						
	0	12	Numerical						
	0		Essay						
	0	2+2 = 7	Calculated						
Acti	0	<u>2+2</u> = ?	Calculated multichoice					ıg?	
	0	2#2 ?	Calculated simple						
Edit		Cr	CodeRunner	Ľ	-				
Edit	0	٠ţ٠	Drag and drop into text	•					
Edit					≫	Add	Cancel		
Edit	¥	Re	eady 🕈 V7	24 Aug PM	just 2023, 1:00	0			

- 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	0	Write a PHP array.
Question text	0	
		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".



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



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

<u>Note:</u> 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.