5/25/2020 Virtual Labs





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Round 1 Proposal

R0 without budget without comment ▼

	Print	
Name of Developer & Institute	Prof. Kantesh Balani Indian Institute of Technology Kanpur	
Name of Participating Institute	Indian Institute of Technology Kanpur	
Application Type	Participating Institute	
Lab Name, ID & Discipline	Python for Basic Arithmetic Operations 172 Computer Science and Engineering	
Name of Experiment	vi. Classes and Objects	
Target Group	UG,PG	

1. Focus Area

SNo.	Focus Area
1	Instrumentation and Practical skills
2	Reinforce theoretical concept



<u>Prof. Sushama Deshmukh</u>

Nov 28, 2019 22:39:47

Reinforce theoretical concept , Instrumentation and Practical skills



Prof. Kantesh Balani

Dec 09, 2019 16:17:21 Issue Resolved

2. Learning Objective and Cognitive Level

SNo.	LO ID	Learning Objective	Cognitive Level	Action Verb
1	587	Student will be able to describe the concepts of classes and objects in Python programming language.	Understand	Describe
2	588	Student will be able to explain the concepts of classes and objects in Python programming language.	Understand	Explain
3	589	Student will be able to apply classes and objects in various Python programs.	Apply	Apply

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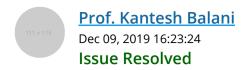




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3. Instruction Strategy

Method	Assessment	Instruction Strategy
Summative Assessment	1. The main objective to	Problem Based
	develop this lab is to provide	
	an interactive source of	
	learning for the students. The	
	simulation that we provide	
	fulfills our purpose.	
	2. The learner will be easily	
	able to understand Python	
	programming language.	
	3. The user will able to	
	understand the use of classes	
	and objects.	
	4. With the help of our virtual	
	lab, students get a chance to	
	learn Python programming	
	language as they are provided	
	with an interactive simulator.	
	It is beneficial in	
	understanding the basics of	
	classes and objects which	
	simply cannot be understood	
	by self-evaluation.	

4. Task and Assessment Questions

LO ID	Learning Objective	Task	Assessment Question
587	Student will be able to describe the concepts of classes and objects in Python programming language.	student will click on execute button to run the program.	represents an entity in the real world with its identity and behaviour. a) A method b) An object c) a class d)An operator
588	Student will be able to explain the concepts of classes and objects in Python programming language.	student click on next button to see output of each step of program	is used to create an object. a)class b)constructor c)User defined functions d)In built functions
589	Student will be able to apply classes and objects in various Python programs.	student will enter values in text field provided.	Where does the value entered in text field of simulator gets stored in program? a. object of the class b. instance variable of class c. constructor of class d. static variable of class

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<u>Prof. Kantesh Balani</u>

Dec 17, 2019 12:26:43 **Issue Resolved**



Prof. Sushama Deshmukh

Nov 28, 2019 22:39:47 Task should be aligned with LOs



Prof. Kantesh Balani Dec 16, 2019 17:01:22 Issue Resolved

5. Simulator Interactions

Sno	What will student do	What will simulator do	Purpose
1	 Examine the simulator screen and take note of all the instructions. Press "Start" button Press "Next" button. Press "Reset" button. Press "Quiz" tab. 	 Display all the simulator contents. Display the code in Python programming language. Highlight each executing line and its output. Reset the simulator for a fresh start. Display the quiz questions. 	 Display simulator interface. To present a code to the user for better understanding. To explain the meaning of each line of code. To perform a fresh experiment. To perform an evaluation of the knowledge gained by the user.

Resolve

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