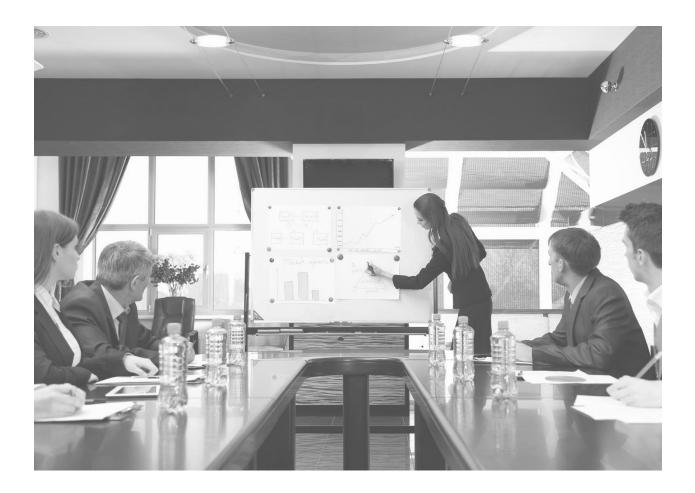


Training Catalogue 03/06/2020

KAÏNA-COM TRAINING CATALOGUE

Advanced Python

Leading programming language that enables development of tools and applications various purposes





Nos locaux KAÏNA-COM France LE CARRÉ HAUSSMANN II 6 Allée de la Connaissance 77 127 Lieusaint





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KPYT001 – Advanced Python

Reference	КРҮТ001			
Experience	 Beginner Intermediate Advanced 			
Duration	Training Program: • 4 days			
Training Method	 I: i-learning, individual training (web-based training) V: v-learning, virtual class 			
	C: c-learning, classroom training			
	KAÏNA-COM			
	LE CARRÉ HAUSSMANN II,			
	6 Allée de la Connaissance			
	77127 Lieusaint - France			
Price	2.707,50 € HT			
Prerequisite	Basic Python			
Audience	Python programmers.			
	Continued on next page			











Objective	The course will enrich applicable knowledge in programming using
	Python. The course will include theoretical knowledge and vast hands-on
	practice in every field that will be acquired.
	Participants will gain ability in programming through scripts in the Python programming language. The course will include the following topics. The unique characteristics of the language including syntax rules, advantages and disadvantages of the programming language in
	comparison to other programming languages.
	Installation of a full working environment and creation of input and output.
	The participants will have full capability of use and development within the Python environment including the use of editor and debugger. Use of variables and casting of variables (int, float, complex, boolean).
	Use of `if' statements – if, else, elif.
	Boolean operators and numerical operators.
	Use of strings variables; use of string functions including slicing.
	Types of loops and related commands such as: break, continue, pass, else.
	Use of modules including – module creation and import.
	Advanced data types: List, Tuple, Sets, Dictionary – creation, manipulations on variables.
	Reading and writing files: creation, open, close, read, write, append, etc. File types – Random and sequence
	Functions – definition, usage, capabilities, return values. Exception Handling
	Python modules – Introduction, creation, import
	OS Module – Using operating system functionality
	Regular Expressions – definition, rules, write expressions OOP (Object Oriented Python)
	Logging: Logging to files, setting severity and messages formatting Datetime Module
	Python Performance Tips
	All hands-on topics that will be learnt throughout the course will be
	exercised to gain practical expertise. Summary exercises will include programming and developing that requires combined use of the various
	topics.

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Course Contents Course Contents :

Table 1: KPYT001 - Course Contents

Chapter	Description		
	 Introduction – Programming languages, uniqueness of Python as a programming language, interpreter 		
	 Installing of full working environment, familiarization of working environment 		
	Use of comments		
	Class practice		
	• Presentation of Python variables: int, float, Complex, String, Boolean Strings: Learning of functions and abilities for string manipulations String multiplications, String slicing, Casting, Class practice		
	 Flow control – conditions 		
	– Use of: if, elif, else		
	 Boolean operators 		
Day 1	 Numeric operators including power and modulo 		
	 Class practice 		
	 Presentation of the debugger and practical use 		
	 Class practice 		
	 writing scripts and use of the debugger for troubleshooting 		
	 Loops – for and while (Syntax and Differences) 		
	 Additional commands for control (break, continue, pass, else) 		
	 Infinite loops / Class practice 		
	 Advanced data types: List – creation, assignment, access 		
	 List functions and operators, Slicing, Sort and reverse sort 		
	 Class practice 		











Contents,	Chapter	Description
continued	Day 2	 More advanced data types: Tuple, Sets, Dictionary - creation, assignment, access Class practice Reading and writing files: Creation, open, close Read, write, append File types - Random and Sequence Class practice Functions definition, usage, capabilities, return values, documentation Class practice Lambda functions Definition Rules Class practice Exception Handling Introduction When is exception handling actually required? Examples Class practice











Course				
Contents,	Chapter	Description		
continued		Python modules		
		Introduction		
		 Using modules, modules creation, import modules 		
		Class practice		
		 OS Module – Using operating system functionality 		
		Class practice		
		Regular Expressions		
		definition		
	Day 3	• rules		
		write expressions		
		Class practice		
		OOP (Object Oriented Python)		
		Logging to files		
		IDE Output		
		– Files		
		 Setting severity 		
		 Messages formatting 		
		 Class practice 		
		 Datetime Module 		
		 Class practice 		











Course Contents, Chapter Description continued Multiprocessing ٠ Class practice • Multithreading • Day 4 Class practice • Python Performance Tips • Class practice ٠ Mini Project • • Summary **The End** Q&A • Evaluation •







