Python Programming with Red Hat (AD141)

Category: Software Development & Programming | **Vendor:** Red Hat

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Related Exam: AD141

Course Overview

Python is a popular programming language used by system administrators, data scientists, and developers to create web applications, custom Red Hat Ansible Automation modules, perform statistical analysis, and train AI/ML models. This course introduces the Python language and teaches fundamental concepts like control flow, loops, data structures, functions, file I/O, regular expressions, parsing JSON, and debugging. This course is based on Python 3 and RHEL 9.0.

About This Course

Python is a popular programming language used by system administrators, data scientists, and developers to create web applications, custom Red Hat Ansible Automation modules, perform statistical analysis, and train AI/ML models. This course introduces the Python language and teaches fundamental concepts like control flow, loops, data structures, functions, file I/O, regular expressions, parsing JSON, and debugging. This course is based on Python 3 and RHEL 9.0.

Who Should Attend

System administrators and DevOps personnel who want to use Python to automate operating system tasks Developers from other programming languages who want to learn Python for writing applications AI/ML, data scientists, and engineers who want to use Python for data analysis and machine learning

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Basics of Python syntax, functions and data types How to debug Python scripts using the Python debugger (pdb) Use Python data structures like dictionaries, sets, tuples and lists to handle compound data Learn Object-oriented programming in Python and Exception Handling How to read and write files in Python and parse JSON data Use powerful regular expressions in Python to manipulate text How to effectively structure large Python programs using modules and namespaces How to use third-party libraries using the pip CLI tool.

Detailed Course Outline

1 - Outline

- An Overview of Python 3
- Introduction to Python and setting up the developer environment
- Basic Python Syntax
- Explore the basic syntax and semantics of Python
- Language Components
- Understand the basic control flow features and operators
- Collections
- Write programs that manipulate compound data using lists, sets, tuples and dictionaries
- Functions
- Decompose your programs into composable functions
- Modules
- Organize your code using Modules for flexibility and reuse
- Classes in Python
- Explore Object Oriented Programming (OOP) with classes and objects
- Exceptions
- Handle runtime errors using Exceptions
- Input and Output
- Implement programs that read and write files
- Data Structures
- Use advanced data structures like generators and comprehensions to reduce boilerplate code
- Regular Expressions
- Use powerful regular expressions to manipulate textual data
- Parsing JSON
- Read and write JSON data
- Debugging
- Debug Python programs using the Python debugger (pdb)

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- Write programs that manipulate compound data using lists, tuples and dictionaries

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- Decompose your programs into composable functions

6 - Modules

- Organize your code using Modules for flexibility and reuse

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- Explore Object Oriented Programming (OOP) with classes and objects

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- Handle runtime errors using Exceptions

9 - Input and Output

- Implement programs that read and write files

10 - Data Structures

- Use advanced data structures like generators and comprehensions to reduce boilerplate code

11 - Regular Expressions

- Use powerful regular expressions to manipulate textual data

12 - Parsing JSON

- Read and write JSON data

13 - Debugging

- Debug Python programs using the Python debugger (pdb)

Additional Course Details

Nexus Humans Python Programming with Red Hat (AD141) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Python Programming with Red Hat (AD141) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Python Programming with Red Hat (AD141)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: Which exam does this course prepare me for?

This course prepares you for the AD141 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 5-day Python Programming with Red Hat (AD141) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Python Programming with Red Hat (AD141) training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Python Programming with Red Hat (AD141)?

Yes, we provide corporate training, dedicated training, and closed classes for Python Programming with Red Hat (AD141). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for Python Programming with Red Hat (AD141)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Python Programming with Red Hat (AD141) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

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