100 Python Interview Questions

1. What is Python and what are its key features?

2. What is PEP 8 and why is it important?

3. What is the difference between list and tuple in Python?

4. What are Python decorators?

5. What is the difference between deep copy and shallow copy?

6. What is a lambda function in Python?

7. What are Python modules and packages?

8. How is memory managed in Python?

9. What is the difference between '==' and 'is' operator?

10. What is a Python dictionary?

11. Explain list comprehension with an example.

12. What are *args and **kwargs in Python?

13. What is the use of 'self' in Python classes?

14. What is the difference between classmethod and staticmethod?

15. What is the __init__ method in Python?

16. What is inheritance in Python?

17. What is polymorphism in Python?

18. What is encapsulation in Python?

19. What is the Global Interpreter Lock (GIL)?

20. What are Python generators?

21. What is the yield keyword used for?

22. How do you handle exceptions in Python?

23. What is the difference between try/except and try/finally?

24. What are built-in data types in Python?

25. What is a virtual environment in Python?

26. How do you install packages in Python?

27. What is pip in Python?

28. What are Python's magic methods?

29. What is the difference between range() and xrange()?

30. What is recursion in Python?

31. What is slicing in Python?

32. What are Python's built-in functions?

33. What is the difference between remove(), pop(), and del?

34. How do you write a file in Python?

35. How do you read a file in Python?

36. What is the with statement used for?

37. What is pickling and unpickling?

38. What is a Python set?

39. What is the difference between set and frozenset?

40. What is a namespace in Python?

41. What is a Python iterator?

42. What is map(), filter(), and reduce()?

43. What is monkey patching in Python?

44. What is the use of pass statement in Python?

45. What is __main__ in Python?

46. What are Python's built-in modules?

47. What is the difference between append() and extend()?

48. Explain the use of enumerate() in Python.

49. What is a Python closure?

50. What is multithreading in Python?

51. What is multiprocessing in Python?

52. What are Python's data structures?

53. How do you reverse a string in Python?

54. What is a docstring in Python?

55. What is unittest in Python?

56. What is the difference between JSON and pickle?

57. What is Django in Python?

58. What is Flask in Python?

59. What is a REST API?

60. What is a decorator with arguments?

61. How do you convert a string to an integer in Python?

62. What is the difference between local and global variables?

63. How do you create a class in Python?

64. What is super() in Python?

65. What are abstract classes?

66. What is method overriding?

67. What is the difference between error and exception?

68. What are Python libraries used for data science?

69. How do you install a virtual environment in Python?

70. What is the shutil module in Python?

71. What is the OS module in Python?

72. What is list slicing?

73. What is a negative index in Python?

74. What is a Python string?

75. What is the difference between join() and split()?

76. What is the math module in Python?

77. How do you generate random numbers in Python?

78. What is JSON in Python?

79. What is the datetime module used for?

80. What is a lambda function example?

81. What is counter in collections module?

82. What is defaultdict in Python?

83. What is the difference between NumPy and Pandas?

84. What is slicing in Python dictionaries?

85. What is a Python exception hierarchy?

86. What is the difference between lists and arrays?

87. How do you merge two dictionaries in Python?

88. What is an f-string in Python?

89. What is a Python property decorator?

90. What is __slots__ in Python?

91. What is a Python bytecode?

92. What is JIT compilation in Python?

93. What is the difference between CPython and PyPy?

94. What is a metaclass in Python?

95. What is garbage collection in Python?

96. What is the use of dir() function?

97. How do you check Python version?

98. What are Python's built-in exceptions?

99. What are comprehensions in Python?

100. What is the difference between Python2 and Python3?