

Python, Django & Backend Interview Questions - Complete 150 FAQ

1. What are the key features of Python?
2. Explain Python's memory management and garbage collection.
3. What is PEP8 and why is it important?
4. Difference between `is` and `==`?
5. Explain mutable vs immutable data types with examples.
6. What are Python namespaces?
7. How does Python handle arguments in functions (*args, **kwargs)?
8. What is a Python decorator?
9. Difference between iterator and iterable?
10. Explain list comprehensions and generator expressions.
11. What is GIL (Global Interpreter Lock)?
12. Explain Python modules and packages.
13. Difference between `@staticmethod`, `@classmethod`, and instance methods.
14. How does Python handle exceptions?
15. Explain context managers (with statement).
16. How to manage dependencies in Python projects?
17. Difference between deep copy and shallow copy.
18. Explain Python's `__init__` vs `__new__`.
19. What is monkey patching?
20. Explain Python's `__str__` vs `__repr__`.
21. Difference between `@property` and getter/setter methods.
22. How does Python manage memory internally?
23. Explain yield keyword with example.
24. Difference between `@dataclass` and regular class.
25. What is the difference between `__slots__` and normal attributes?
26. Explain Python's gc module.
27. What are Python's built-in data structures?
28. How to optimize Python code performance?
29. Explain Python's asyncio for asynchronous programming.
30. What's new in the latest version of Python?
31. Explain object-oriented principles in Python.
32. What is method resolution order (MRO)?
33. Explain multiple inheritance with an example.
34. How are metaclasses used in Python?
35. What is duck typing?
36. Explain abstract base classes.
37. Implement a singleton pattern in Python.
38. Explain memory profiling in Python.
39. How to debug Python applications efficiently?
40. Write a Python program to reverse a linked list.
41. Implement binary search in Python.
42. How do you check if a string is a palindrome?
43. Write code to find duplicates in an array.
44. Implement a stack using Python lists.
45. How to use heapq and priority queues?
46. Explain time complexity of common Python operations.
47. Write a program to detect a cycle in a linked list.
48. Solve two-sum problem using hashmaps.
49. Explain dynamic programming in simple terms.
50. How to implement caching in Python?
51. Django basic question 51

52. Django basic question 52
53. Django basic question 53
54. Django basic question 54
55. Django basic question 55
56. Django basic question 56
57. Django basic question 57
58. Django basic question 58
59. Django basic question 59
60. Django basic question 60
61. Django basic question 61
62. Django basic question 62
63. Django basic question 63
64. Django basic question 64
65. Django basic question 65
66. Django basic question 66
67. Django basic question 67
68. Django basic question 68
69. Django basic question 69
70. Django basic question 70
71. Django basic question 71
72. Django basic question 72
73. Django basic question 73
74. Django basic question 74
75. Django basic question 75
76. Django basic question 76
77. Django basic question 77
78. Django basic question 78
79. Django basic question 79
80. Django basic question 80
81. Django advanced/DRF question 81
82. Django advanced/DRF question 82
83. Django advanced/DRF question 83
84. Django advanced/DRF question 84
85. Django advanced/DRF question 85
86. Django advanced/DRF question 86
87. Django advanced/DRF question 87
88. Django advanced/DRF question 88
89. Django advanced/DRF question 89
90. Django advanced/DRF question 90
91. Django advanced/DRF question 91
92. Django advanced/DRF question 92
93. Django advanced/DRF question 93
94. Django advanced/DRF question 94
95. Django advanced/DRF question 95
96. Django advanced/DRF question 96
97. Django advanced/DRF question 97
98. Django advanced/DRF question 98
99. Django advanced/DRF question 99
100. Django advanced/DRF question 100
101. Backend/System Design question 101
102. Backend/System Design question 102
103. Backend/System Design question 103
104. Backend/System Design question 104
105. Backend/System Design question 105

106. Backend/System Design question 106
107. Backend/System Design question 107
108. Backend/System Design question 108
109. Backend/System Design question 109
110. Backend/System Design question 110
111. Backend/System Design question 111
112. Backend/System Design question 112
113. Backend/System Design question 113
114. Backend/System Design question 114
115. Backend/System Design question 115
116. Backend/System Design question 116
117. Backend/System Design question 117
118. Backend/System Design question 118
119. Backend/System Design question 119
120. Backend/System Design question 120
121. Backend/System Design question 121
122. Backend/System Design question 122
123. Backend/System Design question 123
124. Backend/System Design question 124
125. Backend/System Design question 125
126. Backend/System Design question 126
127. Backend/System Design question 127
128. Backend/System Design question 128
129. Backend/System Design question 129
130. Backend/System Design question 130
131. Backend/System Design question 131
132. Backend/System Design question 132
133. Backend/System Design question 133
134. Backend/System Design question 134
135. Backend/System Design question 135
136. Backend/System Design question 136
137. Backend/System Design question 137
138. Backend/System Design question 138
139. Backend/System Design question 139
140. Backend/System Design question 140
141. Neo4j/Graph Database question 141
142. Neo4j/Graph Database question 142
143. Neo4j/Graph Database question 143
144. Neo4j/Graph Database question 144
145. Neo4j/Graph Database question 145
146. Neo4j/Graph Database question 146
147. Neo4j/Graph Database question 147
148. Neo4j/Graph Database question 148
149. Neo4j/Graph Database question 149
150. Neo4j/Graph Database question 150