Interview Questions Database

Job Role: Software Engineer

Technology: Python

- What are Python's key features, and why is it widely used for software development? [1]

- Explain the difference between deepcopy() and copy() in Python. [2]

- What are Python's memory management features, and how does garbage collection work? [2]

- How do you handle exceptions in Python? Provide an example. [1]

- What is the difference between @staticmethod, @classmethod, and an instance method? [3]

- What are Python generators, and how are they different from iterators? [3]

- Explain the Global Interpreter Lock (GIL) in Python and how it affects multithreading. [3]

- How does Python's list comprehension improve performance? Provide an example. [2]

- What is the difference between is and == in Python? [1]

- Explain how you would optimize a slow-performing Python script. [1]

Technology: JavaScript

- What are the differences between var, let, and const in JavaScript? [1]

- Explain the concept of closures in JavaScript with an example. [1]

- What is event delegation, and why is it useful? [2]

- How does the JavaScript event loop work? [2]

- What is the difference between == and === in JavaScript? [1]

- Explain the difference between synchronous and asynchronous programming in JavaScript. [2]

- What is a Promise, and how does it differ from async/await? [3]

- How does prototypal inheritance work in JavaScript?[3]

- Explain the concept of this in JavaScript and how its value is determined in different contexts. [2]

- What is the difference between map(), forEach(), filter(), and reduce() in JavaScript? [2]

Job Role: Data Scientist

Technology: Machine Learning

1. What is the difference between supervised and unsupervised learning?

2. Explain the bias-variance tradeoff.

3. What are the different types of activation functions used in neural networks?

Technology: SQL

1. What is the difference between INNER JOIN and OUTER JOIN?

2. Explain the use of window functions in SQL.

3. How do you optimize a slow SQL query?