

Python List Interview Questions

Beginner Level Questions

Beginner Level

1. How do you create an empty list in Python?

Two ways:

```
empty_list = []
```

```
empty_list = list()
```

2. How do you add an element to the end of a list?

```
my_list.append(element)
```

3. How do you concatenate two lists?

```
combined = list1 + list2
```

or

```
list1.extend(list2)
```

4. How do you access the last element of a list?

```
last = my_list[-1]
```

5. How do you reverse a list?

```
reversed_list = my_list[::-1] # Creates new list
```

```
my_list.reverse() # In-place reversal
```

Intermediate Level Questions

Intermediate Level

1. Explain list comprehensions with an example.

Create list of squares

```
squares = [x**2 for x in range(10)]
```

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2. How would you remove all occurrences of a value from a list?

```
my_list = [x for x in my_list if x != value]
```

or

```
while value in my_list:
```

```
    my_list.remove(value)
```

3. What's the difference between `list.sort()` and `sorted(list)`?

- `list.sort()` sorts the list in-place and returns `None`
- `sorted(list)` returns a new sorted list, original remains unchanged

4. How do you create a shallow copy of a list?

```
new_list = old_list[:]
```

or

```
new_list = list(old_list)
```

5. How do you find the index of an item in a list?

```
index = my_list.index(value) # Raises ValueError if not found
```