



## 17. Sorting Algorithms

- Types: Bubble, Quick, Merge, Radix, etc.
- No "best" algorithm; depends on data structure context.

## 18. Variable Memory Allocation

- Memory reserved based on data type.
- Example: Integer type reserves 32 bits.

## 19. Dynamic Data Structures

- Adjusts size based on data needs.
- Provides flexibility in data manipulation.

## 2. Programming Interview Questions

### 20. Reversing a String in Java

- Process involves looping and reordering characters.

### 21. Palindrome Check

- A palindrome remains the same when characters are reversed.
- Verification by comparing original and reversed strings.

### 22. Vowels and Consonants Count

- Loop through the string.
- Count vowels and consonants separately.

### 23. Matching Elements in Array

- Utilize nested loops for comparison.
- Identify and print matching elements.

### 24. Reversing an Array

- Invert elements from start to end up to the half-length.



Taken and adapted from:  
<https://www.simplilearn.com/coding-interview-questions-article>