CODING QUESTIONS SAMPLE FILE
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This file contains sample coding questions that can be extracted by the Test Portal.

CODING QUESTION 1: Two Sum Problem

Description:
Given an array of integers nums and an integer target, return indices of the two numbers such that they add up to target. You may assume that each input would have exactly one solution, and you may not use the same element twice.

Input Format:
First line contains n, the number of elements in the array.
Second line contains n space-separated integers.
Third line contains the target sum.

Output Format:
Print two space-separated indices of the numbers that add up to target.

Constraints:
- 2 <= nums.length <= 10^4
- -10^9 <= nums[i] <= 10^9
- -10^9 <= target <= 10^9
- Only one valid answer exists.

Sample Input 1:
4
2 7 11 15
9

Sample Output 1:
0 1

Explanation:
nums[0] + nums[1] = 2 + 7 = 9, so we return [0, 1].

Language: JavaScript

Starter Code:
```javascript
function twoSum(nums, target) {
    // Write your code here
}
```

CODING QUESTION 2: Reverse a String

Description:
Write a function that reverses a string. The input string is given as an array of characters.

Input Format:
A single line containing a string.

Output Format:
Print the reversed string.

Constraints:
- 1 <= s.length <= 10^5
- s[i] is a printable ascii character.

Sample Input 1:
hello

Sample Output 1:
olleh

Sample Input 2:
Hannah

Sample Output 2:
hannaH

Language: Python

Starter Code:
```python
def reverse_string(s):
    # Write your code here
    pass
```

Problem 3: FizzBuzz

Description:
Write a program that prints the numbers from 1 to n. But for multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".

Input Format:
A single integer n.

Output Format:
Print n lines, each containing either the number, "Fizz", "Buzz", or "FizzBuzz".

Constraints:
- 1 <= n <= 10^4

Sample Input:
15

Sample Output:
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
11
Fizz
13
14
FizzBuzz

Language: Java

[CODING] Palindrome Check

Description:
Given a string, determine if it is a palindrome, considering only alphanumeric characters and ignoring cases.

Input Format:
A single line containing the string to check.

Output Format:
Print "true" if the string is a palindrome, "false" otherwise.

Constraints:
- 1 <= s.length <= 2 * 10^5
- s consists only of printable ASCII characters.

Sample Input 1:
A man, a plan, a canal: Panama

Sample Output 1:
true

Sample Input 2:
race a car

Sample Output 2:
false

Language: C++

Starter Code:
```cpp
#include <iostream>
#include <string>
using namespace std;

bool isPalindrome(string s) {
    // Write your code here
}

int main() {
    string s;
    getline(cin, s);
    cout << (isPalindrome(s) ? "true" : "false") << endl;
    return 0;
}
```

Write a program to find the factorial of a number

Description:
Given a non-negative integer n, compute the factorial of n. The factorial of n is the product of all positive integers less than or equal to n.

Input Format:
A single integer n.

Output Format:
Print the factorial of n.

Constraints:
- 0 <= n <= 20

Sample Input:
5

Sample Output:
120

Explanation:
5! = 5 Ã— 4 Ã— 3 Ã— 2 Ã— 1 = 120

Implement a function to check if a number is prime

Description:
Given a positive integer n, determine whether it is a prime number. A prime number is a natural number greater than 1 that has no positive divisors other than 1 and itself.

Input Format:
A single integer n.

Output Format:
Print "Prime" if n is prime, otherwise print "Not Prime".

Constraints:
- 1 <= n <= 10^9

Sample Input 1:
7

Sample Output 1:
Prime

Sample Input 2:
12

Sample Output 2:
Not Prime