Please solve the following problem in your preferred coding language.

All problems are functional (Don't need to take any input from the user) Duration: 30 mins

Problem Statement

You are given an array prices where prices[i] is the price of a given stock on the i_{th} day.

You want to maximize your profit by choosing a **single day** to buy one stock and choosing a **different day in the future** to sell that stock.

Return *the maximum profit you can achieve from this transaction*. If you cannot achieve any profit, return 0.

Function Signature

Python

```python
def best_day_to_buy(prices: list) -> int:
```

Input
The list prices represent the prices of a stock on different days.

Output
Return the maximum profit you can achieve from this transaction. If you cannot achieve any profit, return 0..

Example:

Python

Example 1:

Input: prices = [7,1,5,3,6,4]

Output: 5

Explanation: Buy on day 2 (price = 1) and sell on day 5 (price = 6), profit = 6-1 = 5.

Note that buying on day 2 and selling on day 1 is not allowed because you must buy before you sell.

Example 2:

Input: prices = [7,6,4,3,1]

Output: 0

Explanation: In this case, no transactions are done and the max profit = 0

Constraints

- 1 <= prices.length <= 105
- 0 <= prices[i] <= 104