

Binary Search Playlist

Video - 41 ✓



Leetcode
- 2071
Hard



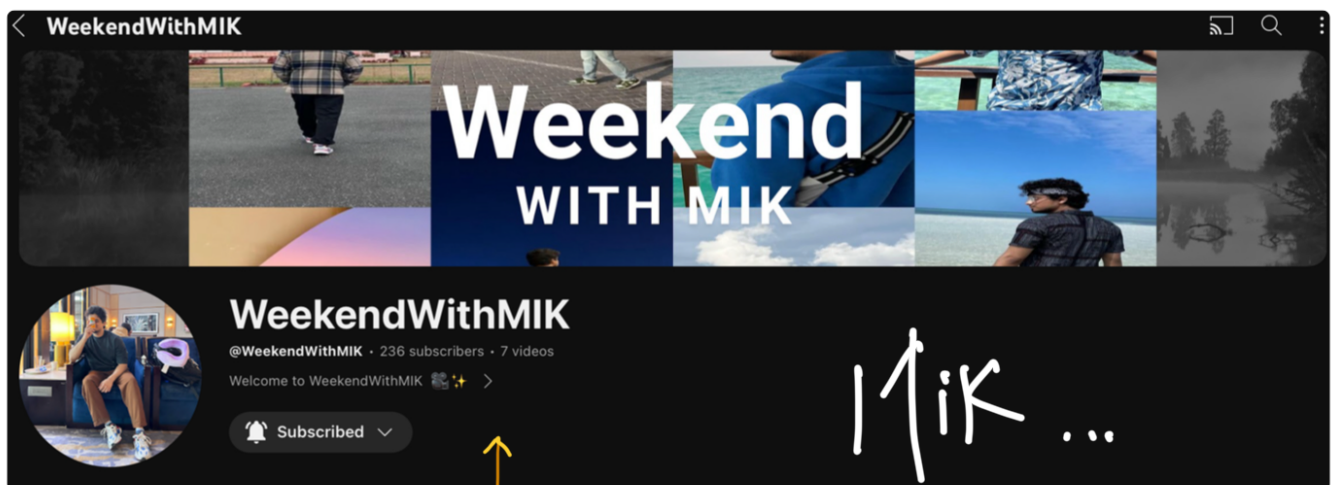
codestorywithmiK



Cs withMIK



codestorywithMIK



Try this channel to know:-

ee "Life behind the screen + tech news"

Motivation :-

If you REALLY want something in your life, you will do every possible thing to get it.

Otherwise, you will keep finding excuses.



MIK...

Ask yourself - AM I HONESTLY DOING EVERYTHING POSSIBLE???

2071. Maximum Number of Tasks You Can Assign

Hard

Topics

Companies

Hint

You have n tasks and m workers. Each task has a strength requirement stored in a **0-indexed** integer array `tasks`, with the i^{th} task requiring `tasks[i]` strength to complete. The strength of each worker is stored in a **0-indexed** integer array `workers`, with the j^{th} worker having `workers[j]` strength. Each worker can only be assigned to a **single** task and must have a strength **greater than or equal** to the task's strength requirement (i.e., `workers[j] >= tasks[i]`).

Additionally, you have `pills` magical pills that will **increase a worker's strength** by `strength`. You can decide which workers receive the magical pills, however, you may only give each worker **at most one** magical pill.

Given the **0-indexed** integer arrays `tasks` and `workers` and the integers `pills` and `strength`, return the **maximum number of tasks** that can be completed.

Example :- $tasks = [3, 2, 1]$

workers = [0, 3, 3]

pills = 1

strength = 1

Output :- 3

Thought Process...

tasks = {5, 5, 8, 9, 9}

workers = {6, 6, 4, 2, 1}

pills = 1

strength = 5

taskCoi = 1

taskC = 3

5 5 8 9 9

easiest tasks = { 5, 5, 8, 1, 1 }

weakest workers = { 1, 2, 4, 6, 6 }

+5
= 9

works
∴

easiest tasks = { 5, 5, 8, 9, 9 }

strongest workers = { 6, 6, 4, 2, 1 }

+5
= 9

tasks = [3, 2, 1]

workers = [0, 3, 3]

pills = 1

strength = 1

easiest tasks = { 1, 2, 3 }

strongest workers = { 3, 3, 0 }

+1

tasks = 2

tasks = 3

easiest task is Descending. ???

$$\text{tasks} = [5, 9, 8, 5, 9]$$

$$\text{workers} = [1, 6, 4, 2, 6]$$

$$\text{Pills} = 1$$

$$\text{strength} = 5$$

$$\text{task} = 1$$

Strongest tasks = { 9, 9, 8, 5, 5 }
 Strongest workers = { 6, 6, 4, 2, 1 }

$$\text{weakest tasks (asc)} = [5, 5, 8, 9, 9]$$

$$\text{Strongest workers (Desc)} = [6, 6, 4, 2, 1]$$

$$\text{Pills} = 1$$

$$\text{strength} = 5$$

$$l = 0 \quad r = 5$$

$$\text{mid} = (l+r)/2$$

$$= (0+5)/2$$

$$= 2$$

Binary Search on
answers

the given tasks \rightarrow ascending

Weakest tasks → Ascending order

Strongest workers → Descending order.

weakest tasks = [5, 5, 8, 9, 9]

Strongest workers = [6, 6, 4, 2, 1]

Pills = 1

strength = 5

i
 $\{5, 5, \underline{8}\}$
multi() { 6, }

$l = 4$ $r = 3$

mid = $(2+3)/2 = 3$

result = 3

8 → required
5 → strength

lower bound (3)

Sum Points:

① easiest task → ascen.

② worker descen. → multiset

→ ③ mid tasks

→ ① strongest workers → structure
↳ if not → lower-bound()

~~multiset~~
↳ ~~1/m:~~

the 1990s, the number of people in the UK who are employed in the public sector has increased by 1.5 million (1990–1999) and the number of people in the private sector by 1.2 million (1990–1999).

There is a growing emphasis on the need to improve the quality of care and services provided by the public sector. This has led to a number of initiatives, including the introduction of the National Health Service (NHS) Act 1990, the NHS and Community Care Act 1991, and the NHS Act 2004. These initiatives have led to a number of changes in the way that the public sector is organised and managed, and to a number of improvements in the quality of care and services provided.

One of the key challenges facing the public sector is the need to improve the quality of care and services provided. This is a complex task, as it involves a number of factors, including the quality of the staff, the quality of the facilities, and the quality of the services provided. There are a number of ways in which the quality of care and services can be improved, and these are discussed in the following sections.

One of the key ways in which the quality of care and services can be improved is by improving the quality of the staff. This can be done in a number of ways, including by providing training and development opportunities, by improving the working conditions, and by improving the pay and benefits. Improving the quality of the staff is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

Another key way in which the quality of care and services can be improved is by improving the quality of the facilities. This can be done in a number of ways, including by investing in new equipment and facilities, by improving the maintenance of existing facilities, and by improving the safety of the facilities. Improving the quality of the facilities is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

Finally, another key way in which the quality of care and services can be improved is by improving the quality of the services provided. This can be done in a number of ways, including by improving the efficiency of the services, by improving the effectiveness of the services, and by improving the accessibility of the services. Improving the quality of the services provided is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

There are a number of other factors that can affect the quality of care and services provided by the public sector, and these are discussed in the following sections. It is clear that improving the quality of care and services is a complex task, and it is essential that this is done in a way that is sustainable and effective.

One of the key factors that can affect the quality of care and services is the quality of the management. This can be done in a number of ways, including by improving the quality of the management team, by improving the quality of the management processes, and by improving the quality of the management systems. Improving the quality of the management is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

Another key factor that can affect the quality of care and services is the quality of the funding. This can be done in a number of ways, including by improving the quality of the funding sources, by improving the quality of the funding processes, and by improving the quality of the funding systems. Improving the quality of the funding is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

Finally, another key factor that can affect the quality of care and services is the quality of the information. This can be done in a number of ways, including by improving the quality of the information sources, by improving the quality of the information processes, and by improving the quality of the information systems. Improving the quality of the information is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

There are a number of other factors that can affect the quality of care and services provided by the public sector, and these are discussed in the following sections. It is clear that improving the quality of care and services is a complex task, and it is essential that this is done in a way that is sustainable and effective.

One of the key factors that can affect the quality of care and services is the quality of the culture. This can be done in a number of ways, including by improving the quality of the culture of the organisation, by improving the quality of the culture of the management, and by improving the quality of the culture of the staff. Improving the quality of the culture is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

Another key factor that can affect the quality of care and services is the quality of the environment. This can be done in a number of ways, including by improving the quality of the environment of the organisation, by improving the quality of the environment of the management, and by improving the quality of the environment of the staff. Improving the quality of the environment is a key priority for the public sector, and it is essential that this is done in a way that is sustainable and effective.

the 1990s, the number of people in the world who are under 15 years of age has increased by 1.2 billion (United Nations 1999).

There is a growing awareness of the need to address the needs of children in the 21st century. The United Nations Convention on the Rights of the Child (1989) has been signed by 112 countries, and the United Nations Millennium Declaration (2000) has set out a commitment to 'ensure that all children, everywhere, have access to primary education by the year 2015'. The United Nations Secretary-General Kofi Annan (1999) has called for 'a new global compact for children'.

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