Minimum Number of Platforms Required at a Railway Station

Problem Statement:

You are given two arrays, `arrival` and `departure`, where `arrival[i]` and `departure[i]` represent the arrival and departure times (in minutes) of the `i-th` train at a railway station. Your task is to determine the **minimum number of platforms** required so that no train has to wait for a platform to become available.

Constraints:

- $1 \leq |arrival| = |departure| \leq 10^4$
- $0 \leq arrival[i], departure[i] \leq 10^9$
- It is guaranteed that for each train, $arrival[i] < departure[i]$.

Example 1:

Input:

```
arrival = [900, 940, 950, 1100, 1500, 1800]
departure = [910, 1200, 1120, 1130, 1900, 2000]
```

Output:

```
3
```

Explanation:
At most 3 trains overlap at any given time:

- Between 1100 and 1120, trains arriving at 940, 950, and 1100 are all present at the station. Thus, 3 platforms are required.

Example 2:

Input:

```
arrival = [900, 940]
departure = [910, 1200]
```

Output:

```
1
```

Explanation:
Only one train is present at any given time, so only 1 platform is required.

Example 3:

Input:

```
arrival = [900, 940, 950]
departure = [910, 1200, 1120]
```

Output:

```
2
```

Explanation:
At most 2 trains overlap at any given time:

- Between 940 and 950, trains arriving at 900 and 940 are present. Thus, 2 platforms are required.

Hints:

1. Combine the `arrival` and `departure` times into a single list of events, marking each event as either an "arrival" or "departure."
2. Sort the events by time. If two events occur at the same time, process departures before arrivals.
3. Use a counter to track the number of platforms in use at any given time. Increment the counter for arrivals and decrement it for departures. Keep track of the maximum value of the counter during the process.