

Bibi's Busy Schedule

Bibi is extremely busy and keeps a detailed schedule of her daily activities. Each activity entry includes a date, a time range, and an activity name. You are given a list of activities, and then several queries asking what Bibi is doing at a specific moment. For each queried timestamp, you must determine whether the time falls within any activity scheduled for that day. If multiple activities overlap, you must output the one that starts the earliest. If no activity matches the given time, you must output "free".

Input Format:

All input is read from testdata.in.

- The first line contains an integer N , the number of activities.
- The next N lines each contain an activity in the format:
YYYY-MM-DD#HH:MM-HH:MM#S
- The next line contains an integer Q , the number of queries.
- The following Q lines each contain a query timestamp in the format:
YYYY-MM-DD#HH:MM

Output Format:

For each query, print the name of the activity Bibi is doing at that moment, or print "free".

Constraints:

- $1 \leq |S| \leq 50$
- $S \in \{a - z, A - Z, space\}$
- $1 \leq N, Q \leq 100$

Sample Input (testdata.in)	Sample Output (stdout)
5 2025-01-10#09:00-10:00#piano course 2025-01-12#11:00-12:00#swimming course 2025-01-11#15:00-17:00#basketball course 2025-01-10#12:00-15:00#tennis course 2025-01-10#09:30-11:00#music theory 4 2025-01-10#09:15 2025-01-10#10:30 2025-01-11#16:00 2025-01-12#10:50	piano course music theory basketball course free

Explanation:

- 2025-01-10 09:15

There are overlapping activities: piano course (09:00–10:00) and music theory (09:30–11:00). The earliest starting one is piano course.

- 2025-01-10 10:30 → Bibi is in music theory
- 2025-01-11 16:00 → Bibi is in basketball course
- 2025-01-12 10:50 → Not within swimming course time, so free.

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Bibi sangat sibuk dan memiliki jadwal harian yang sangat terperinci. Kamu diberikan sebuah daftar aktivitas, lalu beberapa pertanyaan mengenai apa yang sedang dilakukan Bibi pada waktu tertentu. Untuk setiap waktu yang diberikan, kamu harus mencetak kegiatan yang dilakukan Bibi pada hari itu. Jika terdapat beberapa aktivitas yang saling tumpang tindih, tampilkan aktivitas yang mulai paling awal. Jika tidak ada aktivitas, tampilkan "free".

Input Format:

Semua input dibaca dari testdata.in.

- Baris pertama berisi sebuah bilangan bulat N , jumlah aktivitas.
- N baris berikutnya masing-masing berisi sebuah aktivitas dengan format:
YYYY-MM-DD#HH:MM-HH:MM#S
- Baris berikutnya berisi sebuah bilangan bulat Q , jumlah pertanyaan.
- Q baris berikutnya berisi sebuah timestamp pertanyaan dengan format:
YYYY-MM-DD#HH:MM

Output Format:

Untuk setiap pertanyaan, tampilkan nama aktivitas yang sedang dilakukan Bibi pada waktu tersebut, atau tampilkan "free".

Constraints:

- $1 \leq |S| \leq 50$
- $S \in \{a - z, A - Z, spasi\}$
- $1 \leq N, Q \leq 100$

Sample Input (testdata.in)	Sample Output (stdout)
5 2025-01-10#09:00-10:00#piano course 2025-01-12#11:00-12:00#swimming course 2025-01-11#15:00-17:00#basketball course 2025-01-10#12:00-15:00#tennis course 2025-01-10#09:30-11:00#music theory 4 2025-01-10#09:15 2025-01-10#10:30 2025-01-11#16:00 2025-01-12#10:50	piano course music theory basketball course free

Explanation:

- 2025-01-10 09:15

Terdapat aktivitas yang saling tumpang tindih: piano course (09:00–10:00) dan music theory (09:30–11:00). Aktivitas yang mulai paling awal adalah piano course.

- 2025-01-10 10:30 → Bibi sedang mengikuti music theory.
- 2025-01-11 16:00 → Bibi sedang mengikuti basketball course.
- 2025-01-12 10:50 → Tidak berada dalam rentang waktu swimming course, sehingga free.