4. GREEDY ALGORITHMS I
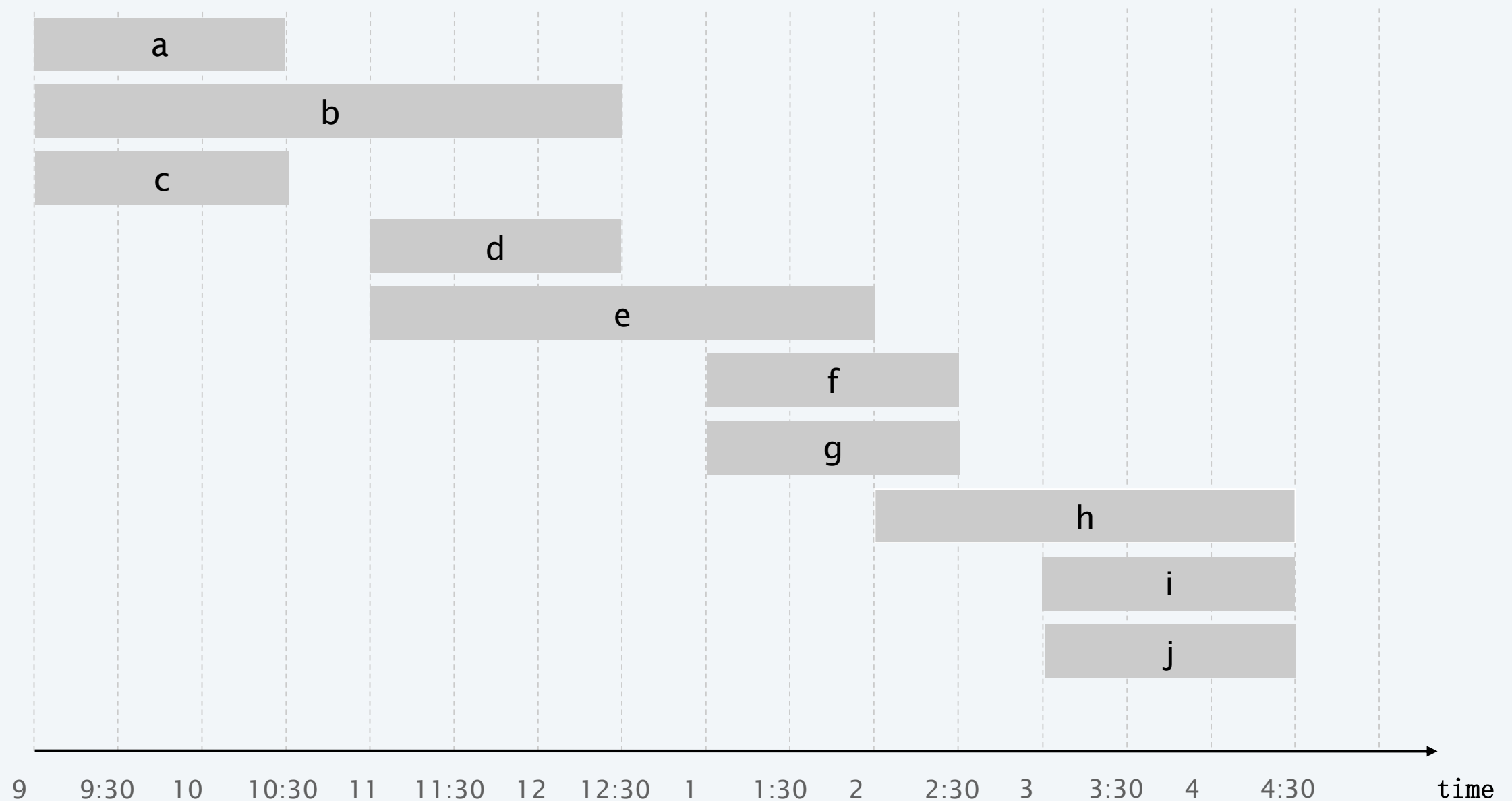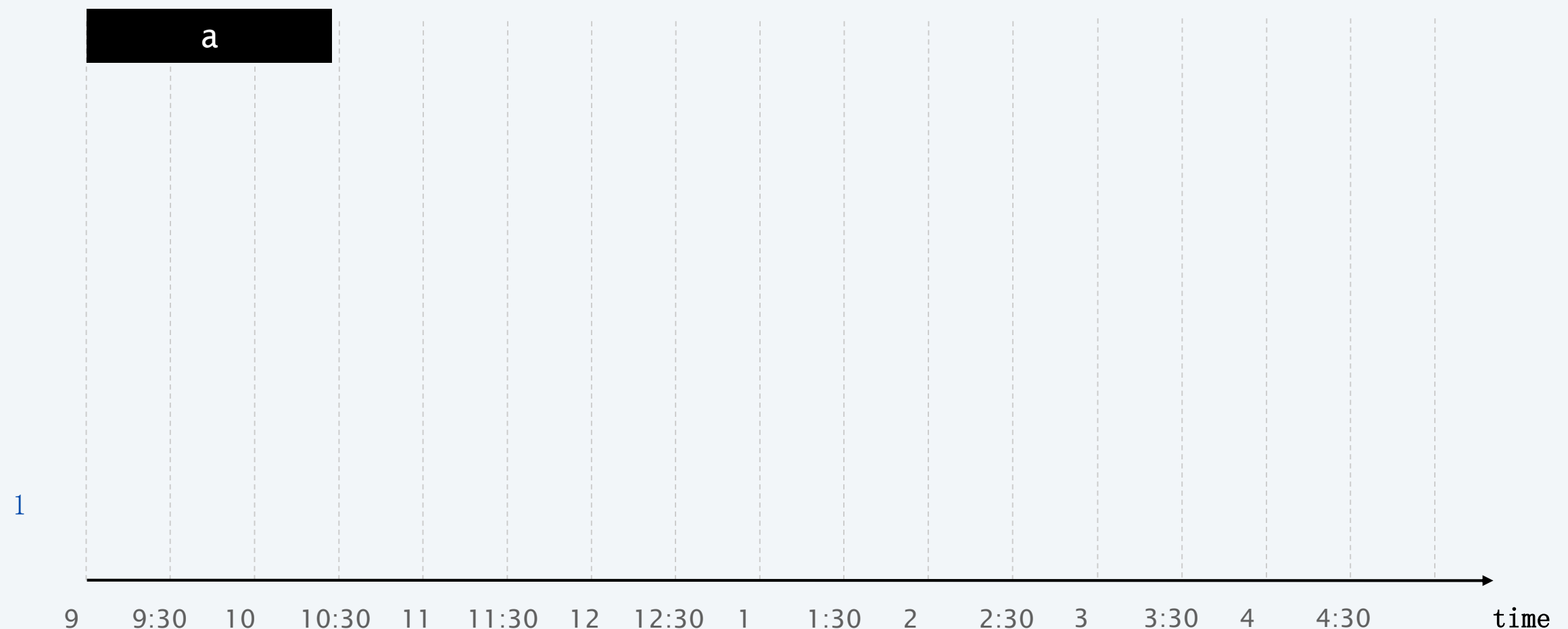
‣ *earliest-start-time-first algorithm demo*

Consider lectures in order of start time:
- Assign next lecture to any available classroom (if one exists).
- Otherwise, open up a new classroom.

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no available classroom: open up a new classroom and assign lecture to it

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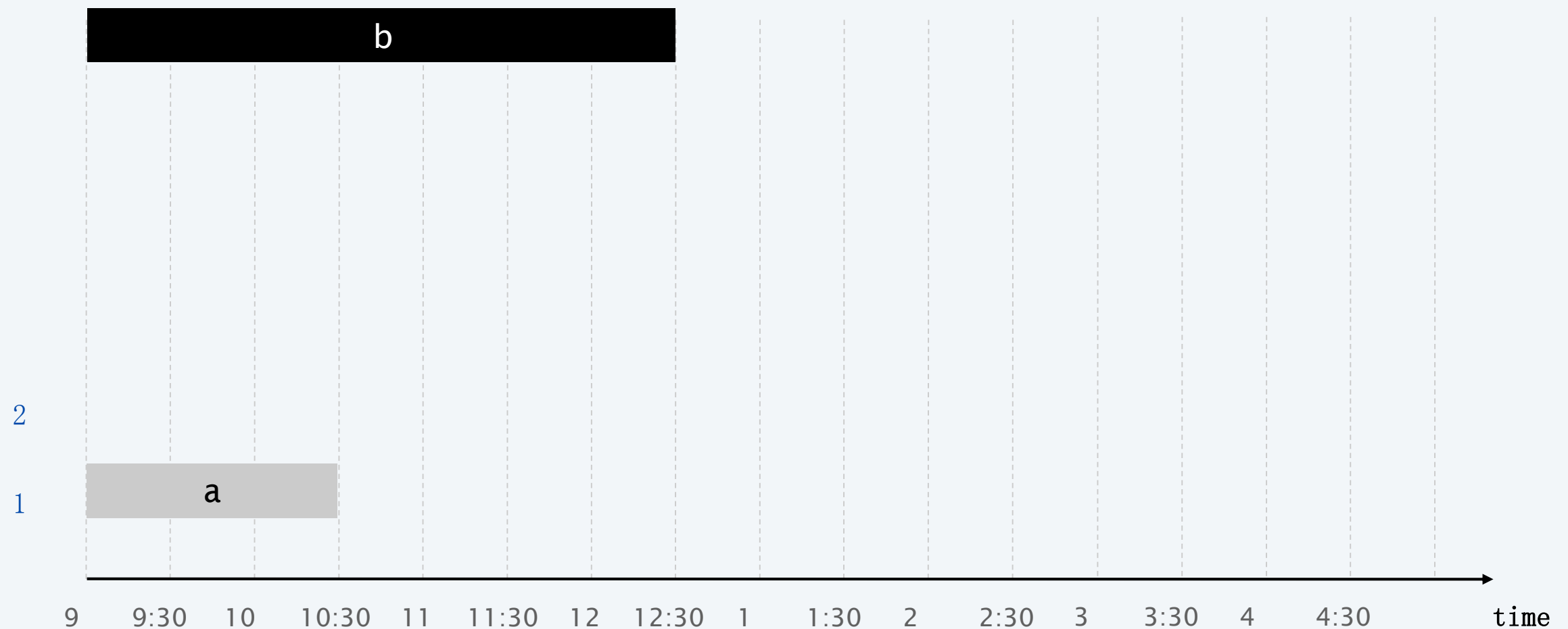no available classroom: open up a new classroom and assign lecture to it

2

1

| | | | | | | | | | | | | | | | | |
9   9:30   10   10:30   11   11:30   12   12:30   1   1:30   2   2:30   3   3:30   4   4:30   time

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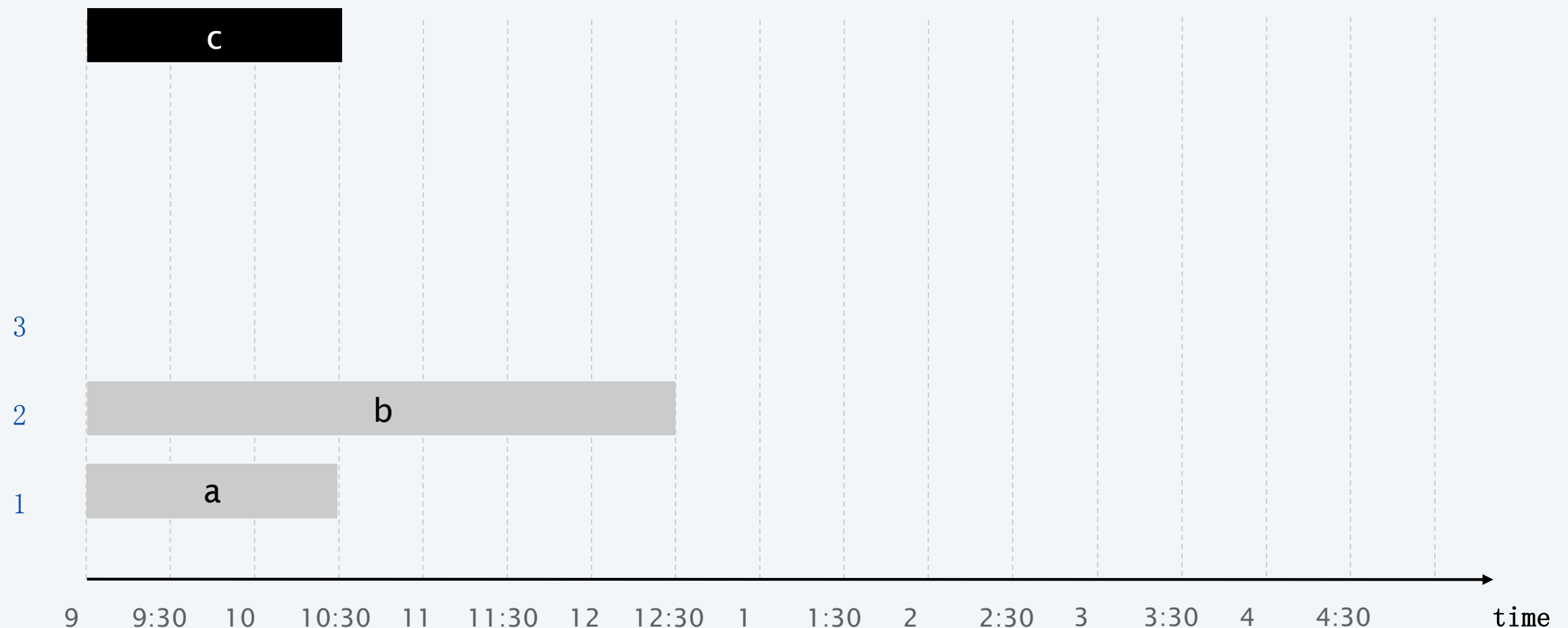no available classroom: open up a new classroom and assign lecture to it

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lecture d is compatible with classrooms 1 and 3

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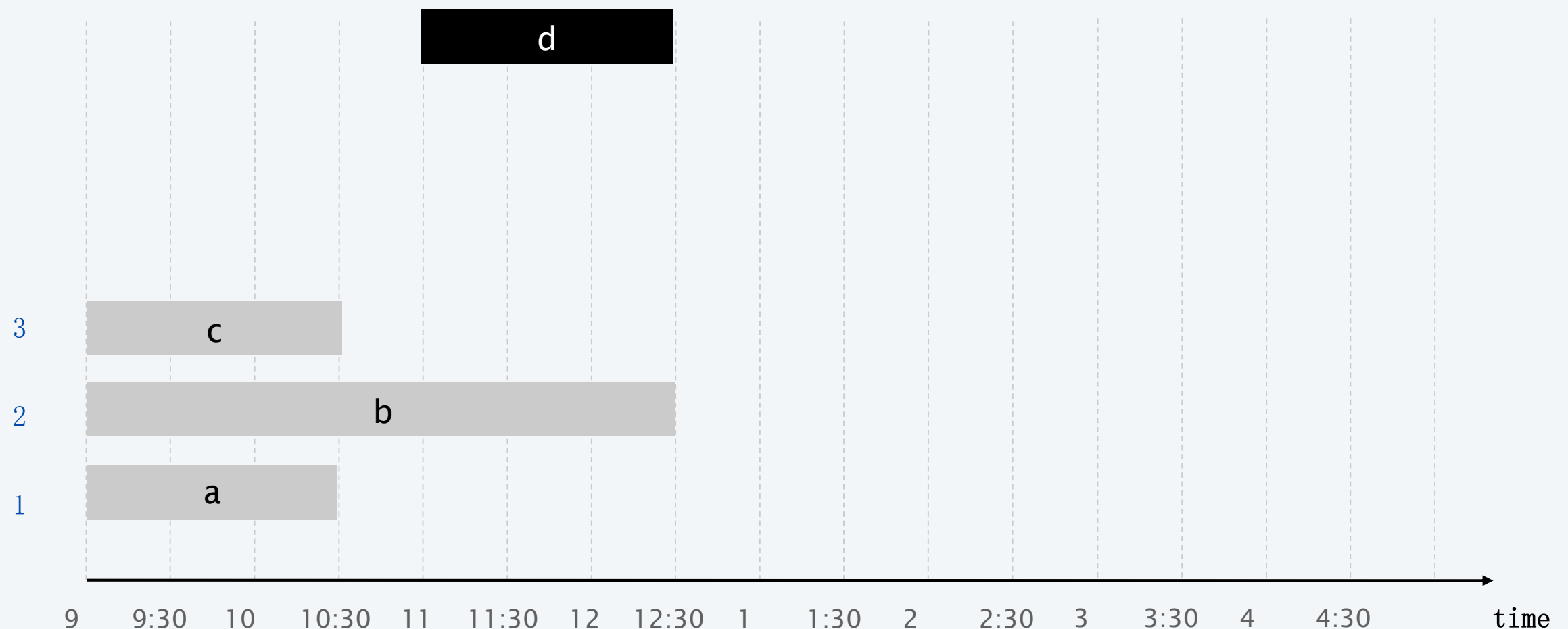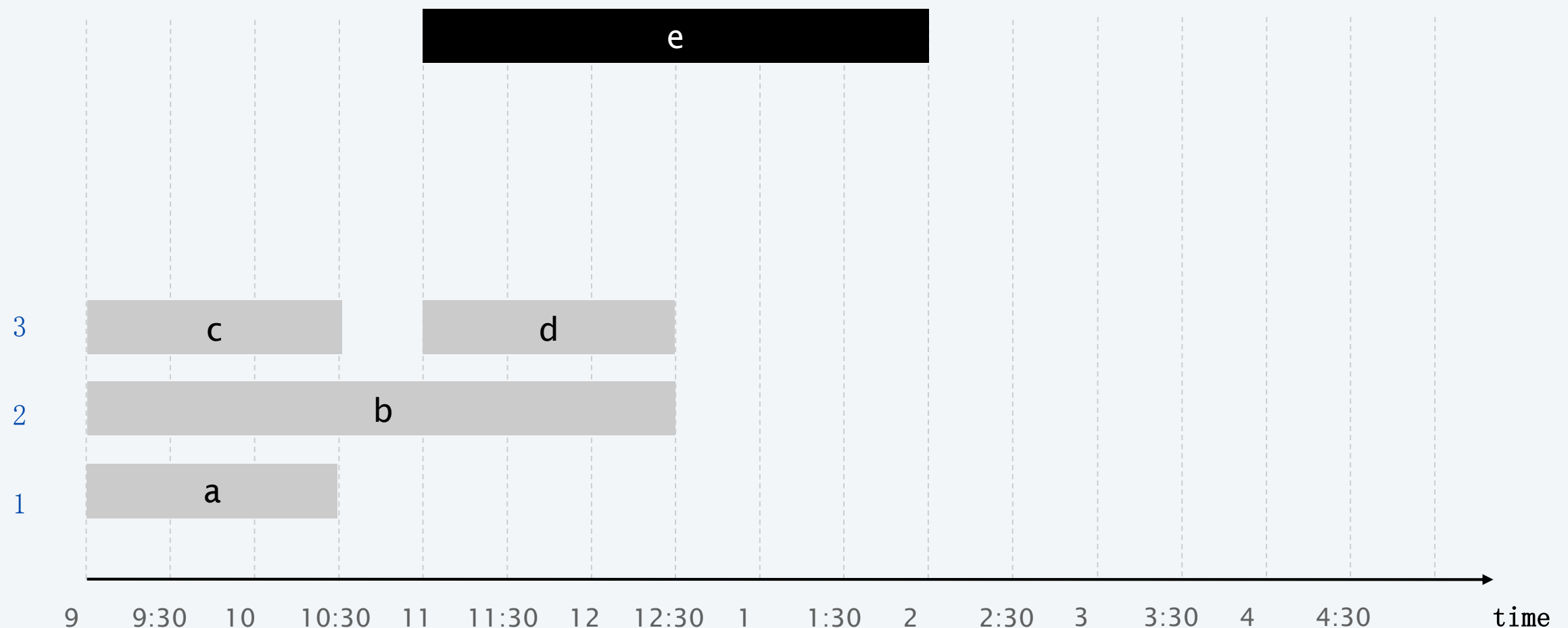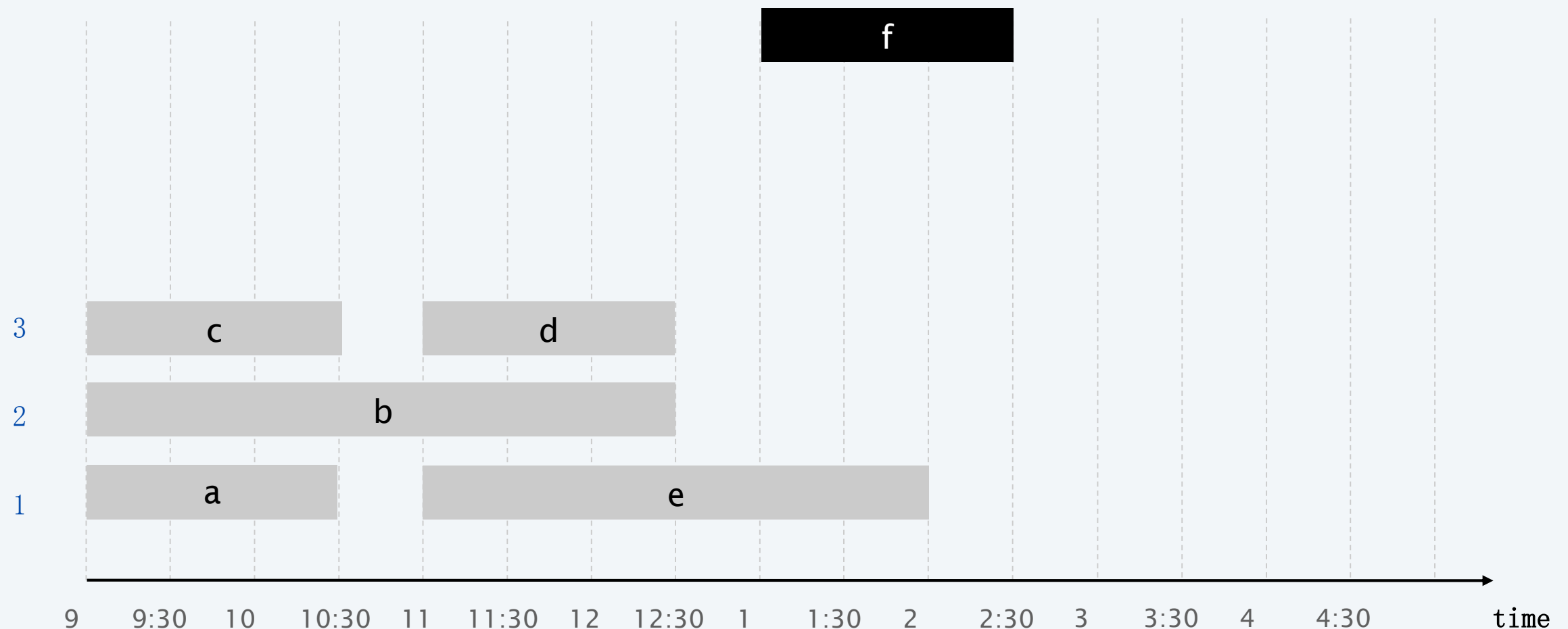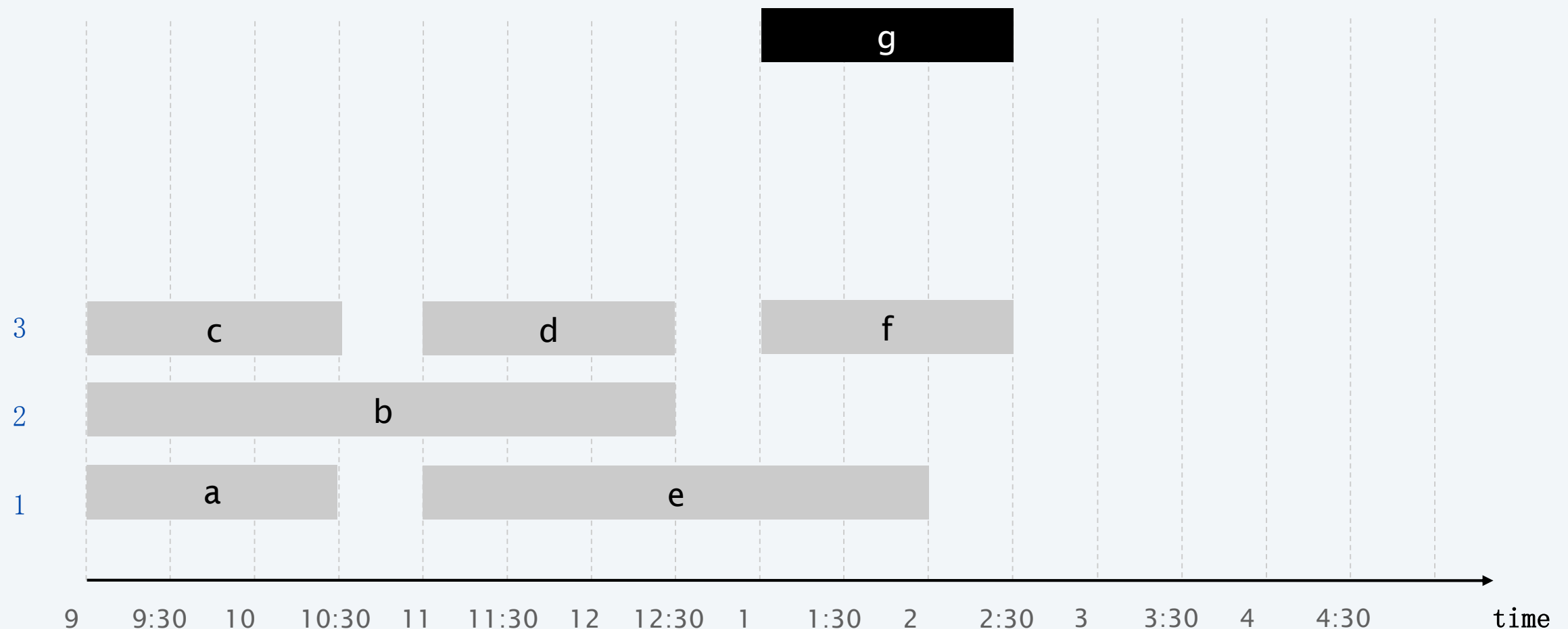lecture e is compatible with classroom 1

Earliest-start-time-first algorithm demo

Consider lectures in order of start time:
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lecture f is compatible with classroom 2 and 3

Consider lectures in order of start time:
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lecture g is compatible with classroom 2

Consider lectures in order of start time:

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- Otherwise, open up a new classroom.

lecture h is compatible with classroom 3
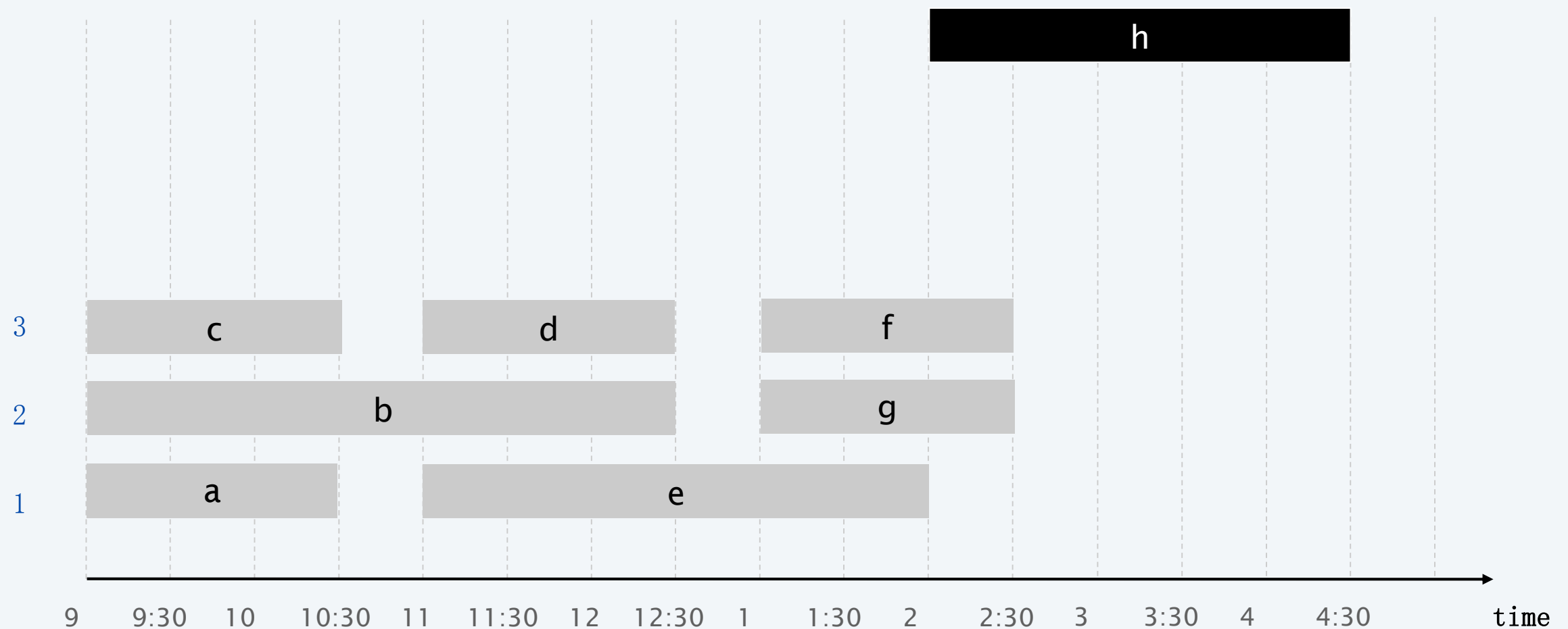
Consider lectures in order of start time:
- Assign next lecture to any available classroom (if one exists).
- Otherwise, open up a new classroom.

lecture j is compatible with classrooms 2 and 3
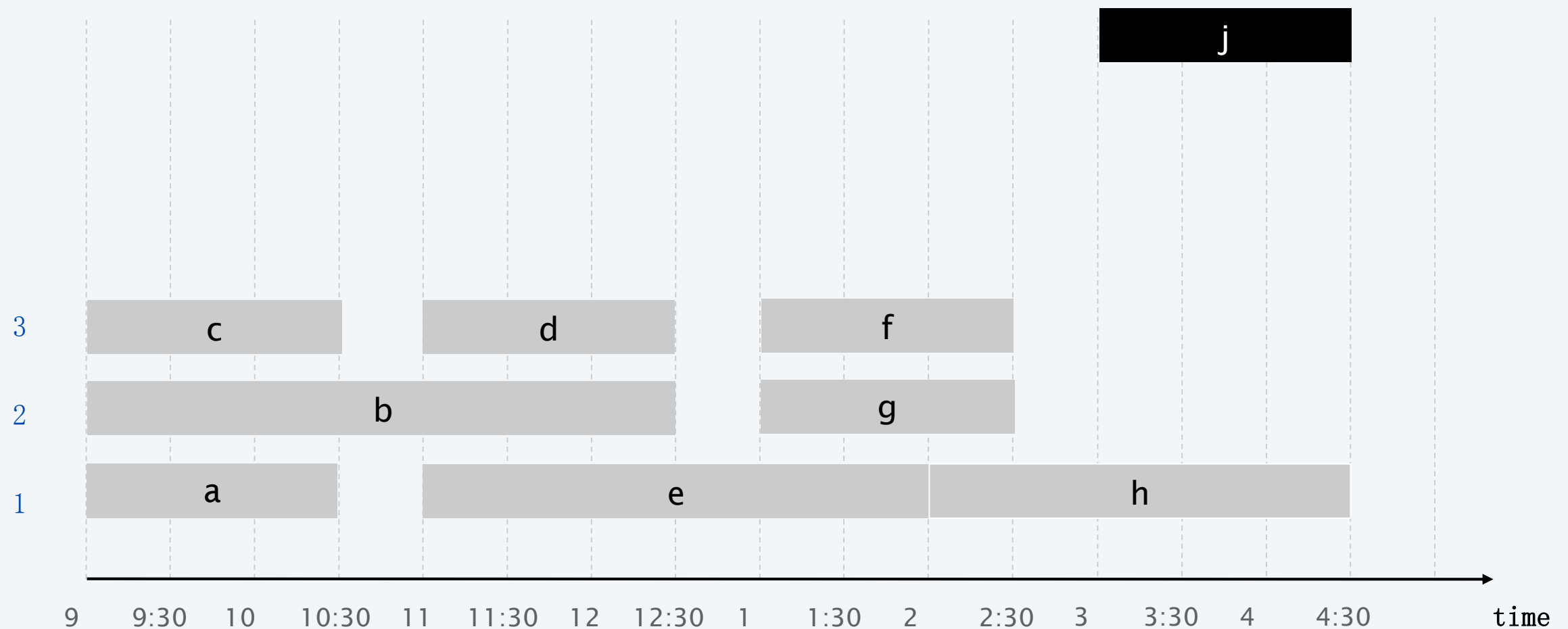
Consider lectures in order of start time:
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- Otherwise, open up a new classroom.

lecture i is compatible with classroom 2

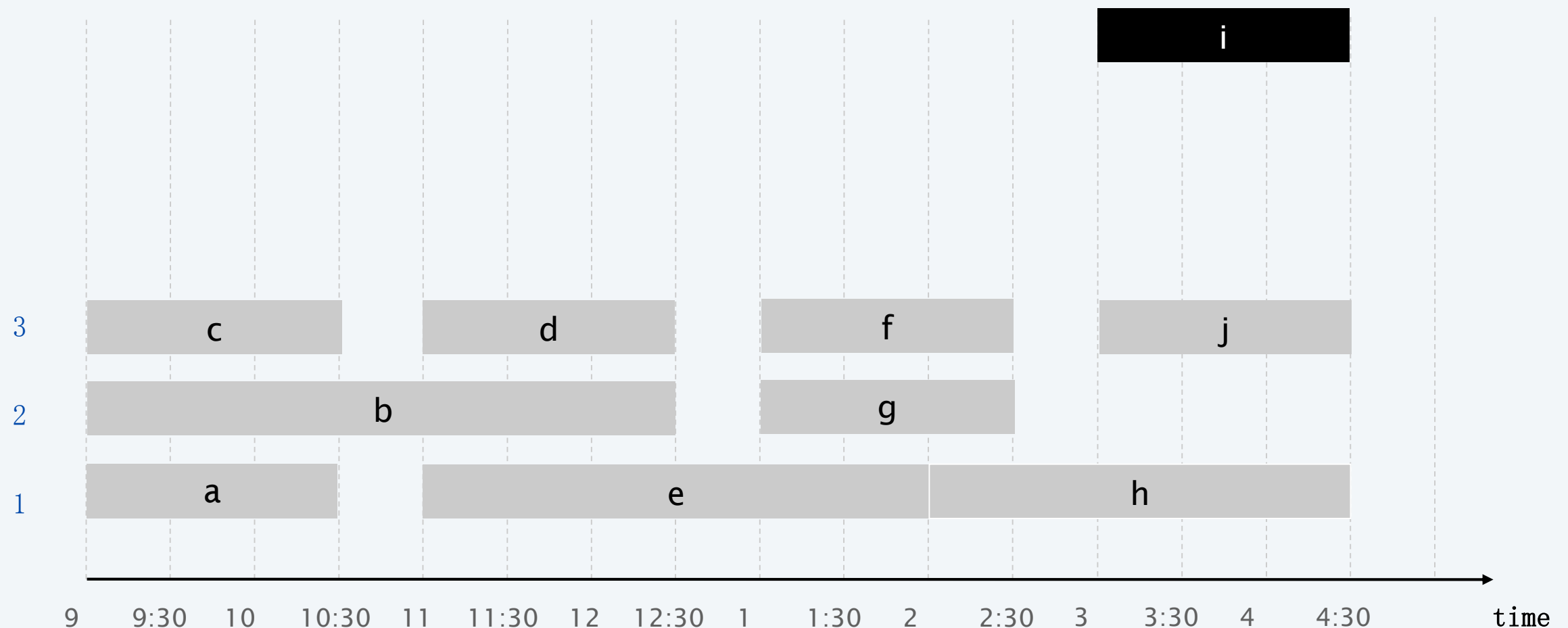Consider lectures in order of start time:

- Assign next lecture to any available classroom (if one exists).
- Otherwise, open up a new classroom.

done