

## 4. GREEDY ALGORITHMS I

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- ▶ *earliest-finish-time-first algorithm demo*

Lecture slides by Kevin Wayne

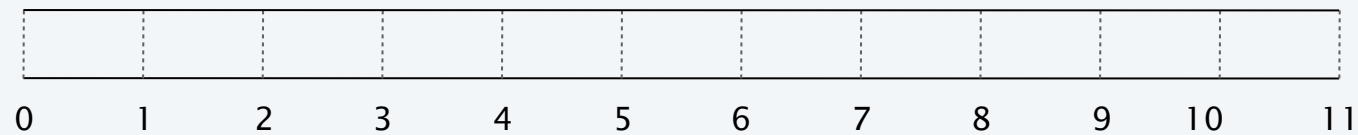
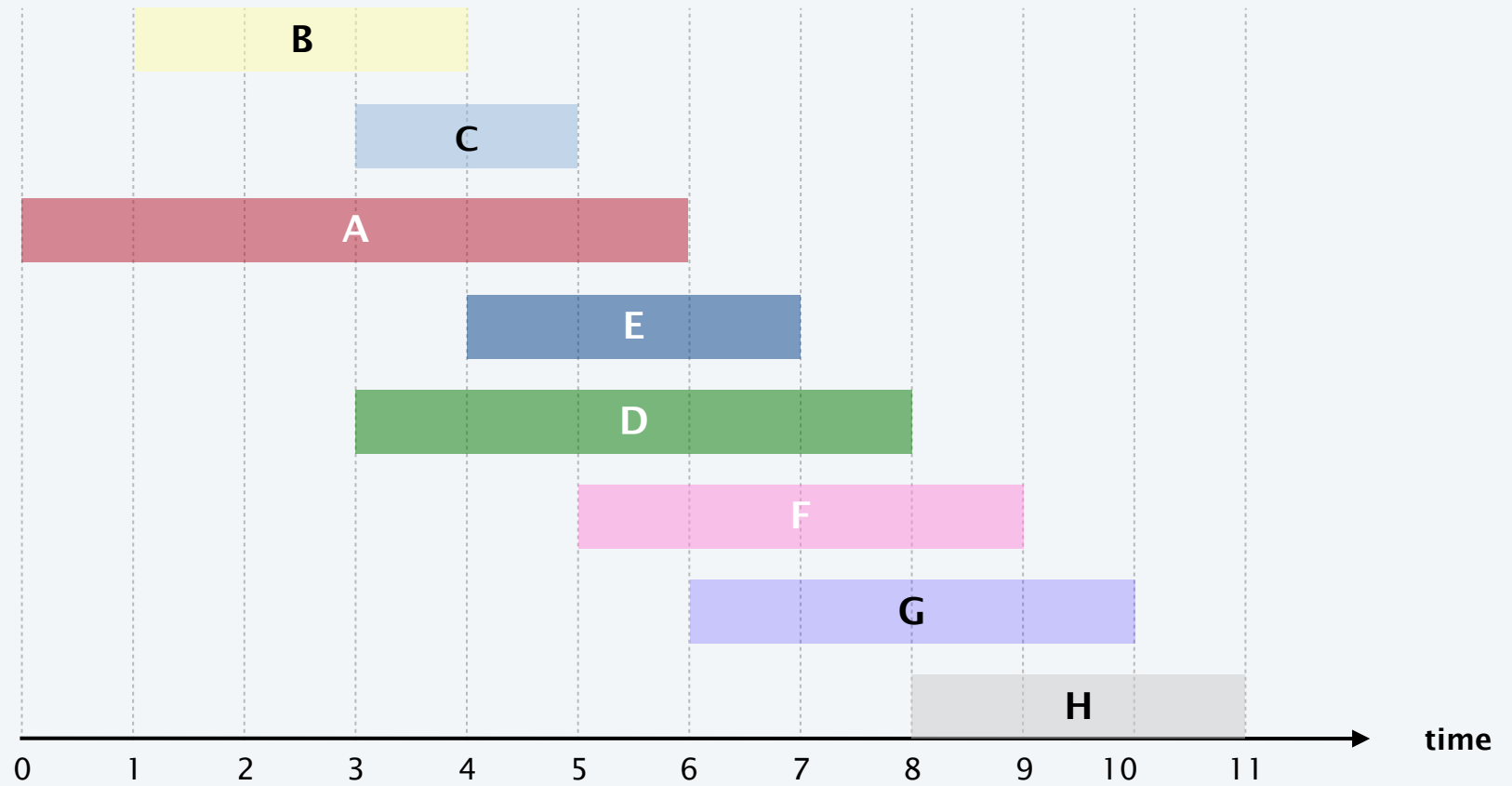
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<http://www.cs.princeton.edu/~wayne/kleinberg-tardos>

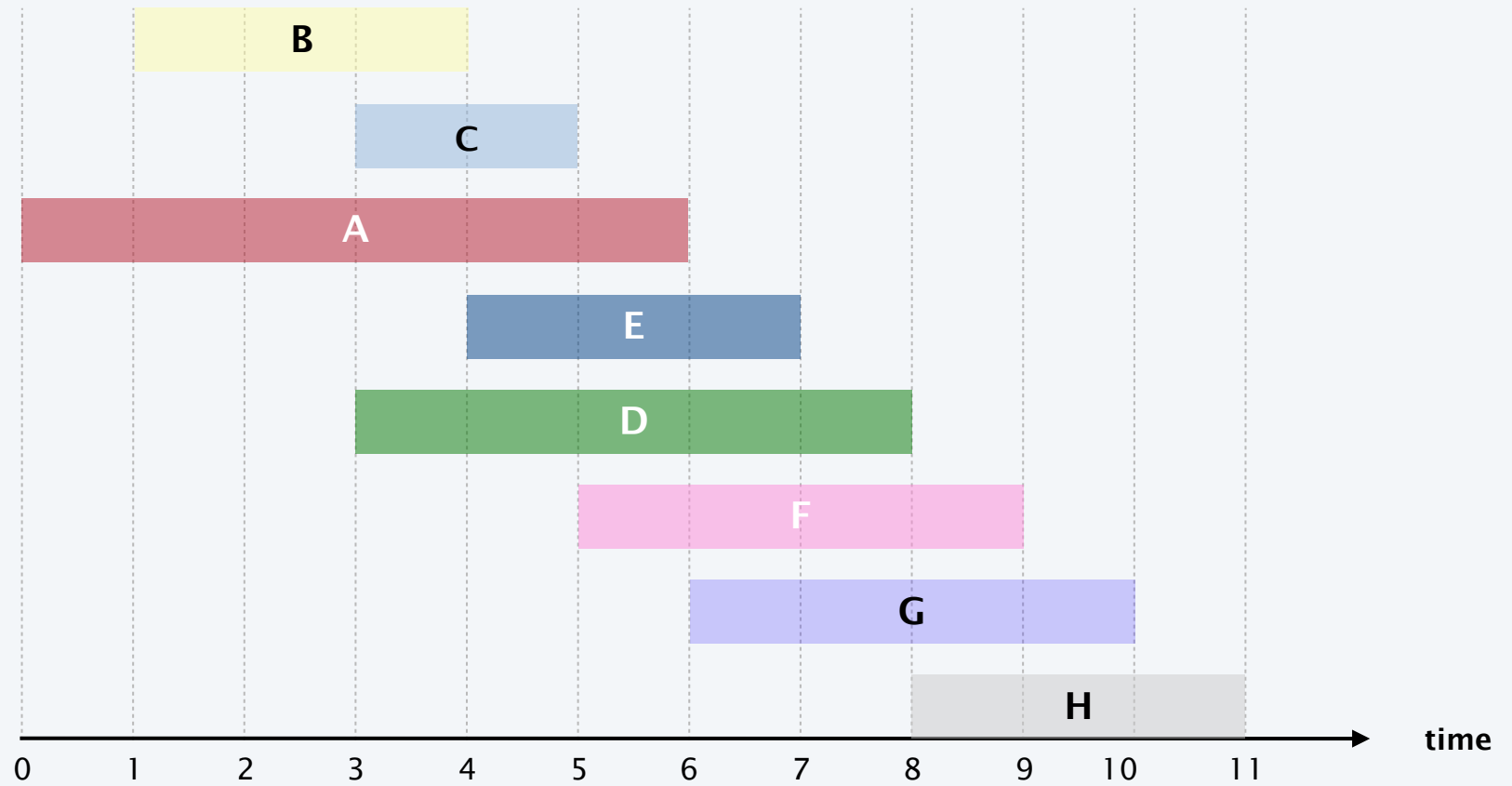
# Earliest-finish-time-first algorithm demo

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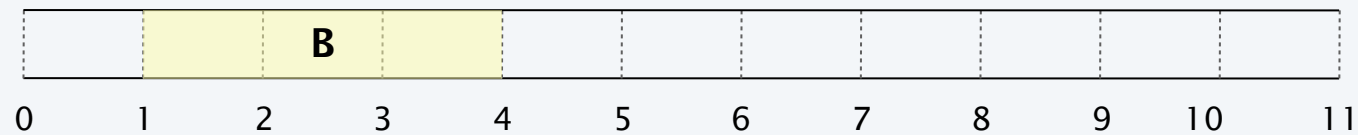


# Earliest-finish-time-first algorithm demo

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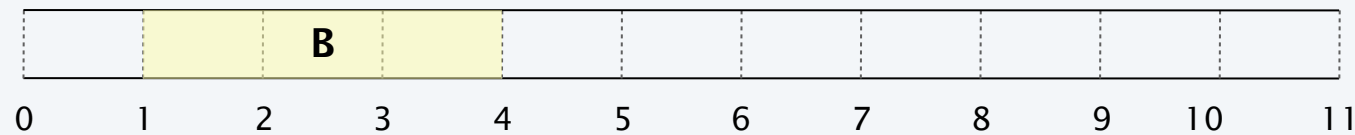
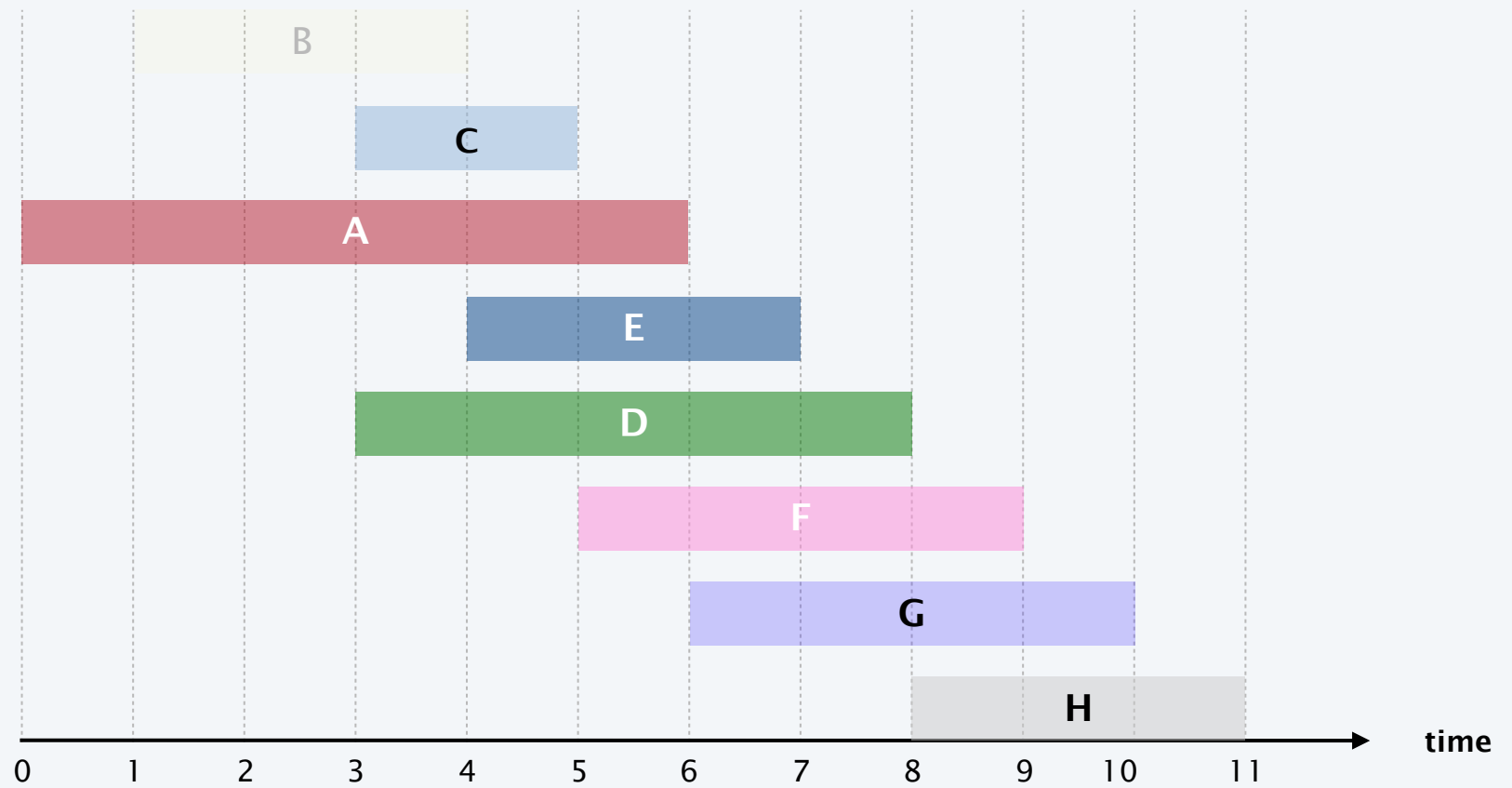


**job B is compatible (add to schedule)**



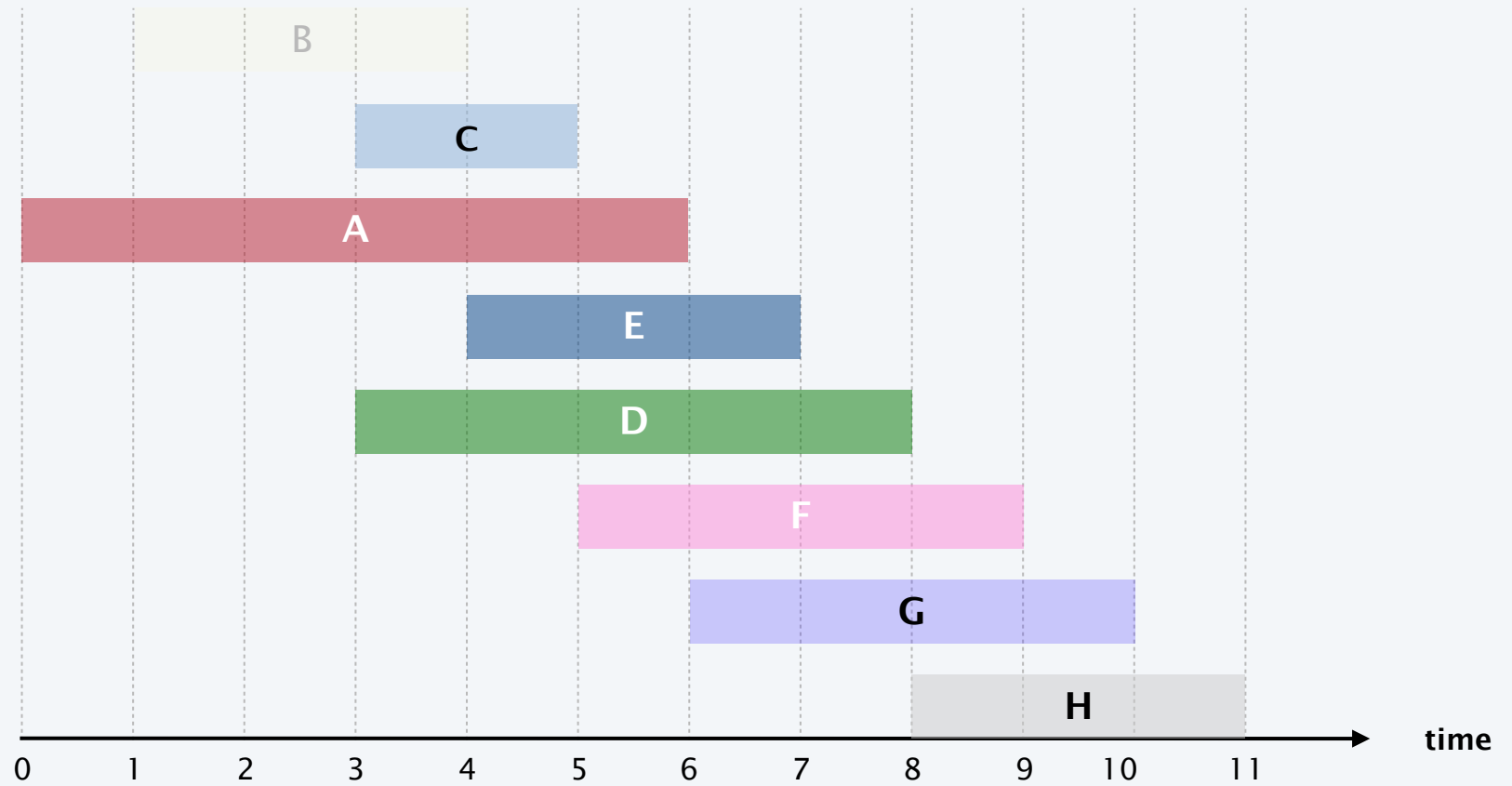
# Earliest-finish-time-first algorithm demo

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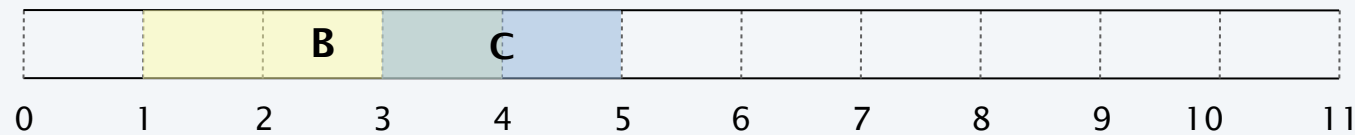


# Earliest-finish-time-first algorithm demo

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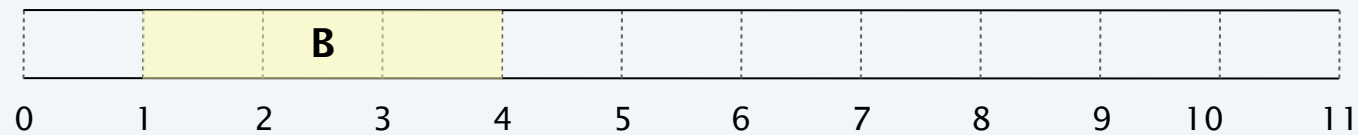
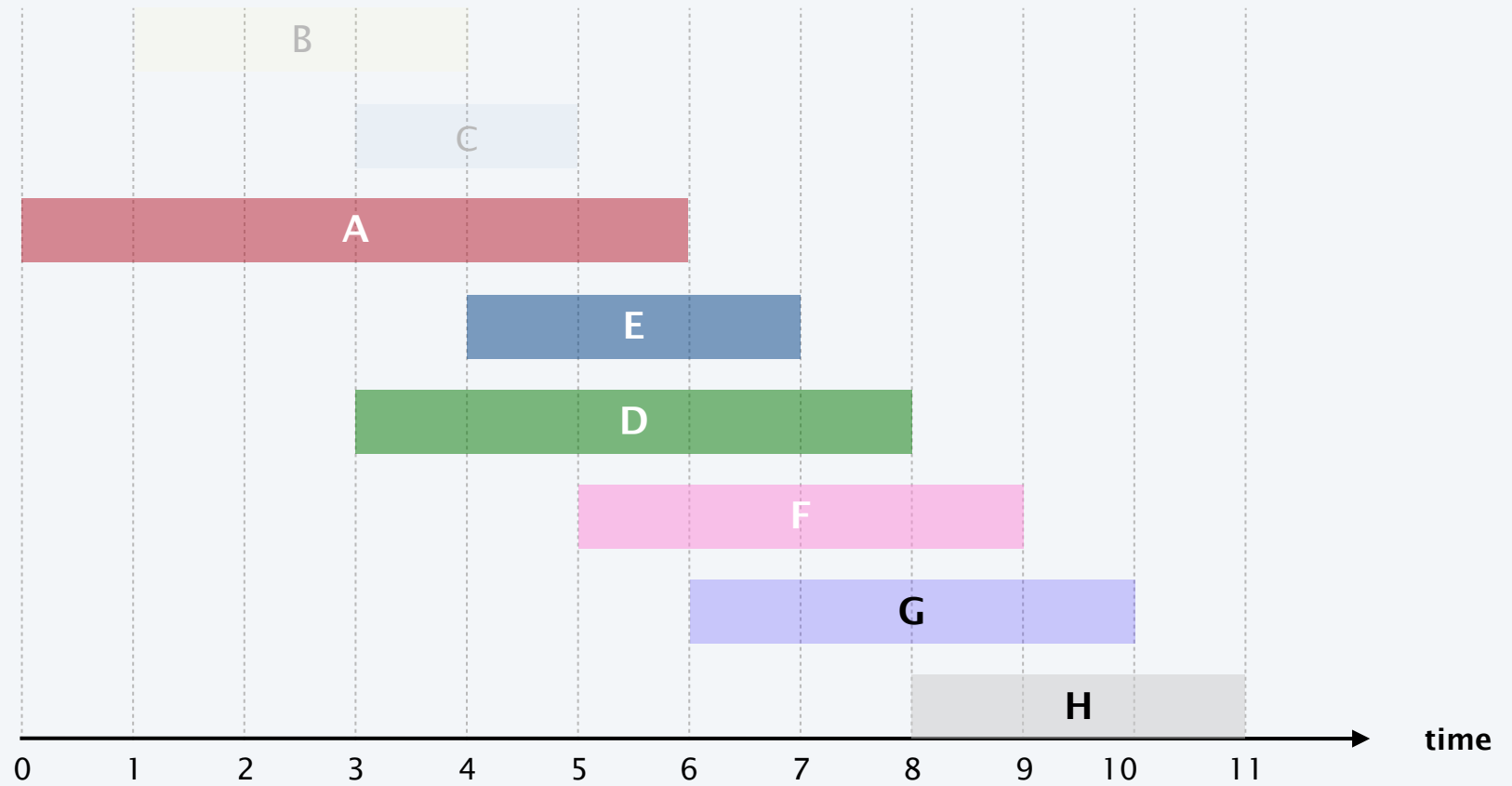


**job C is incompatible (do not add to schedule)**

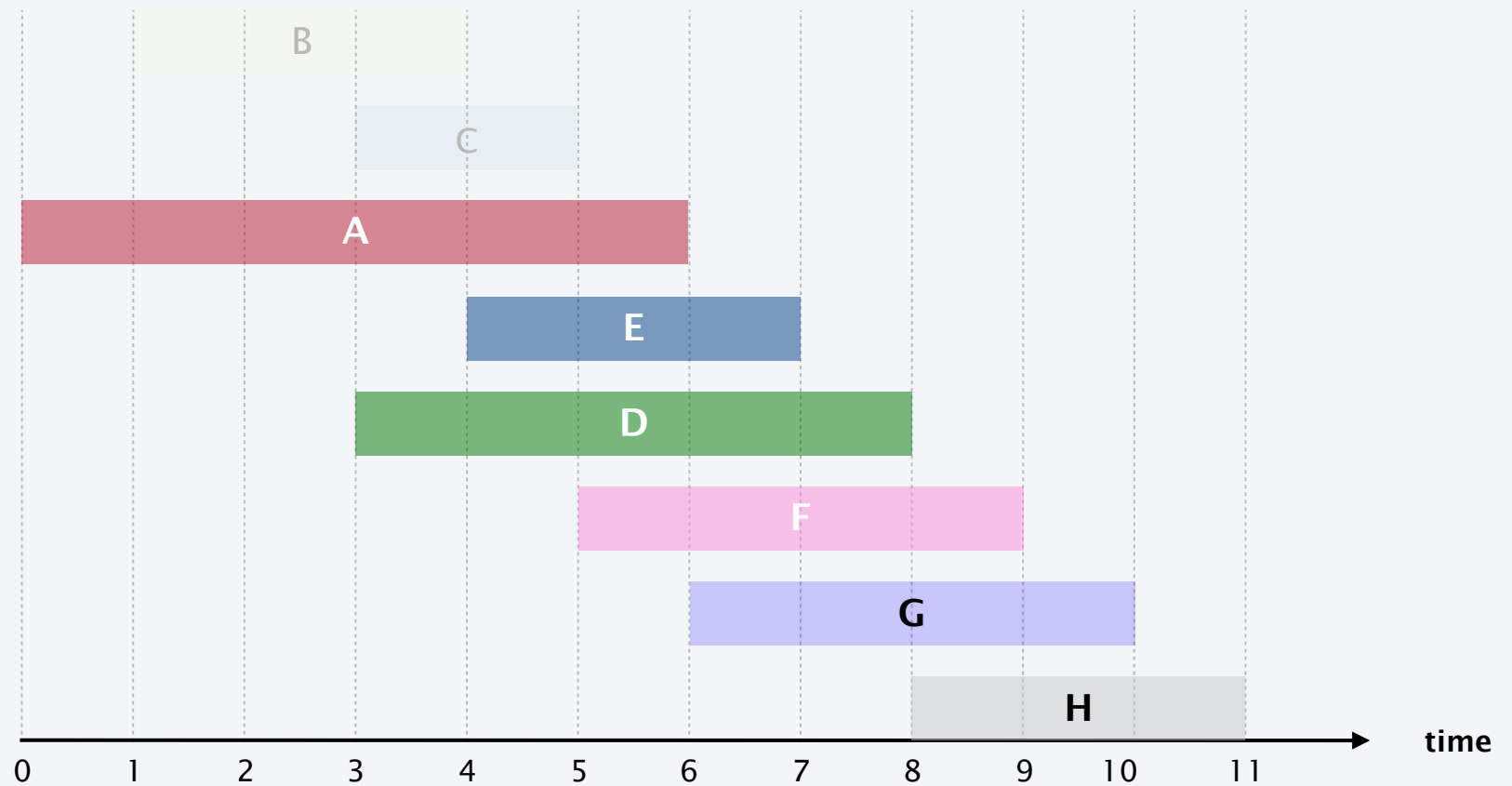


# Earliest-finish-time-first algorithm demo

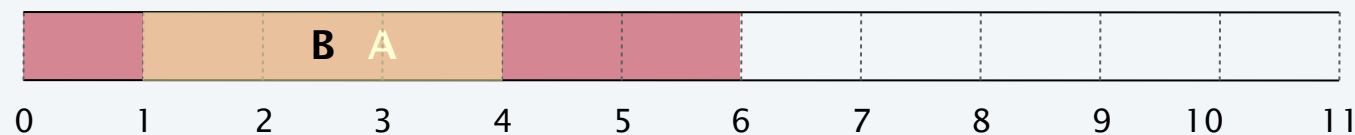
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# Earliest-finish-time-first algorithm demo

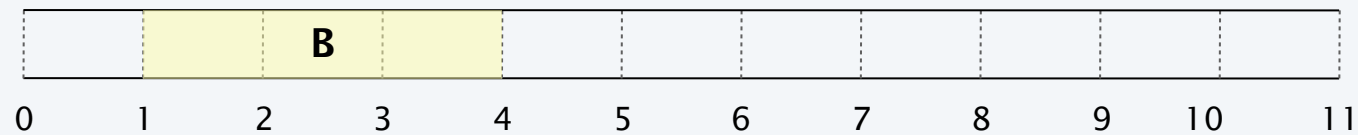
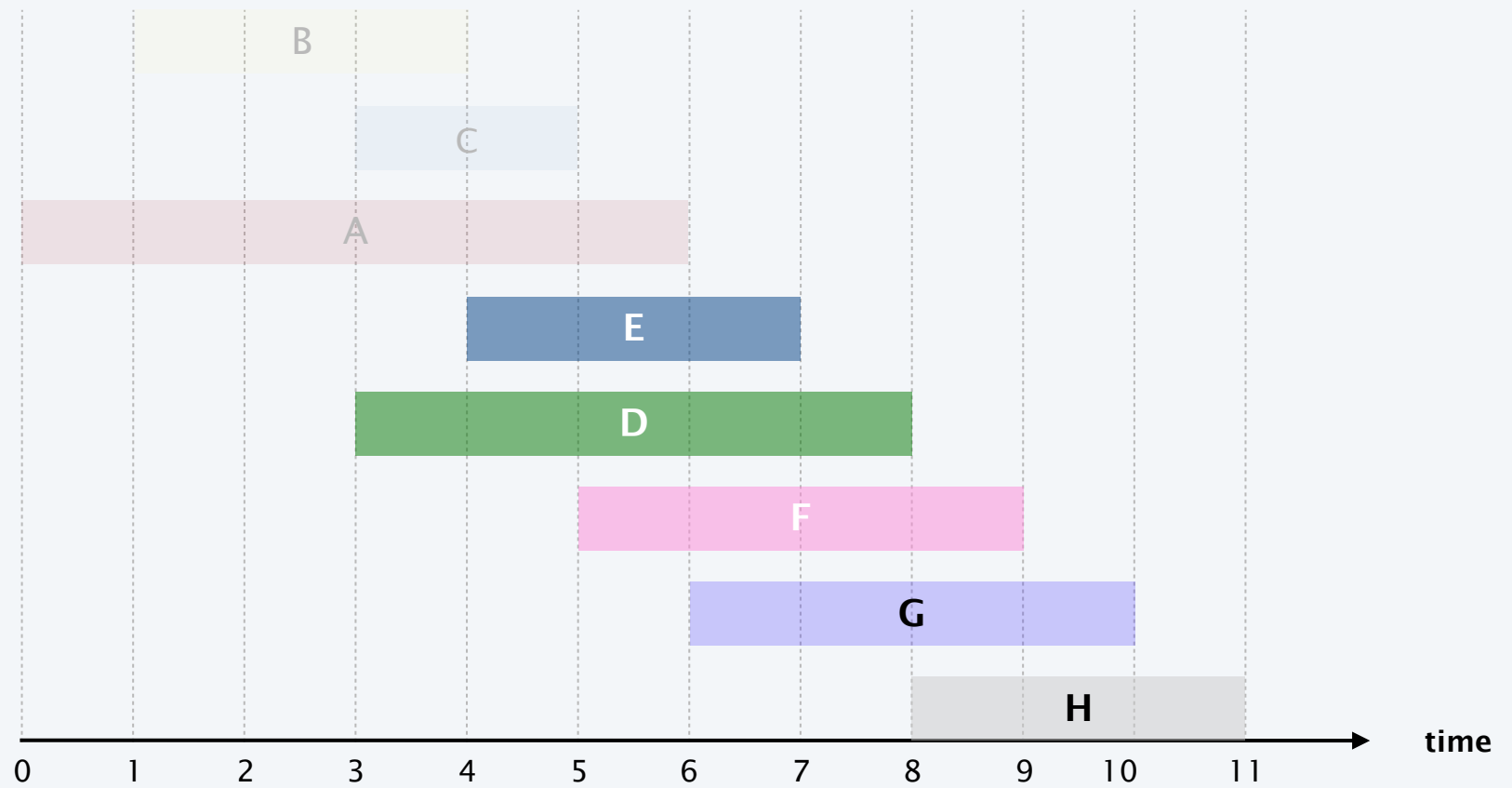


job A is incompatible (do not add to schedule)



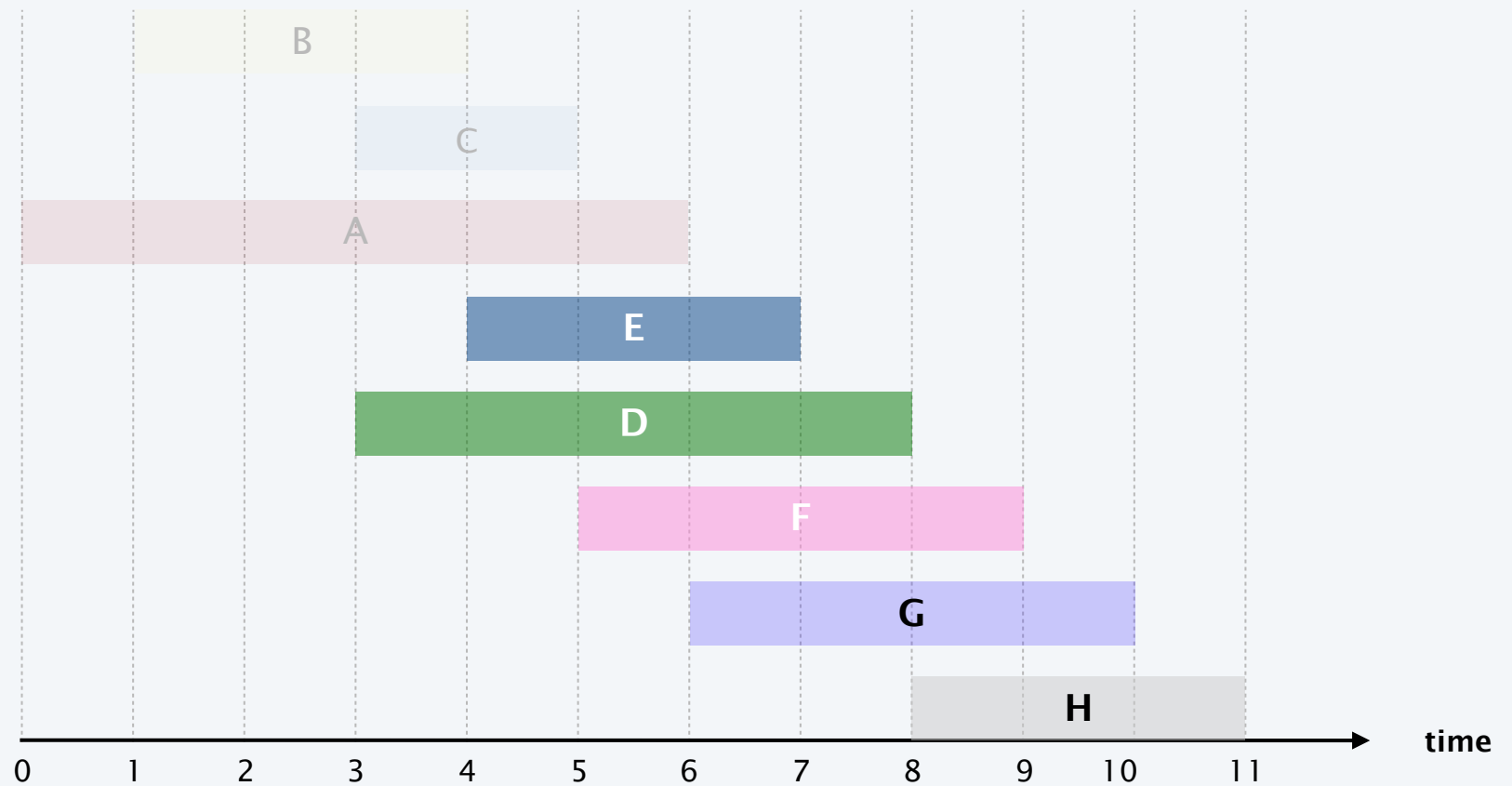
# Earliest-finish-time-first algorithm demo

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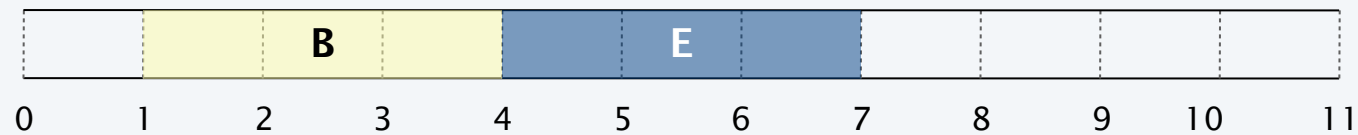




# Earliest-finish-time-first algorithm demo

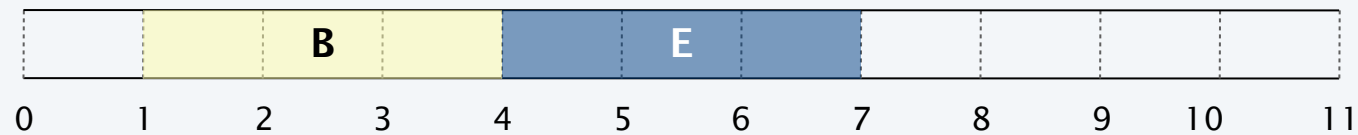
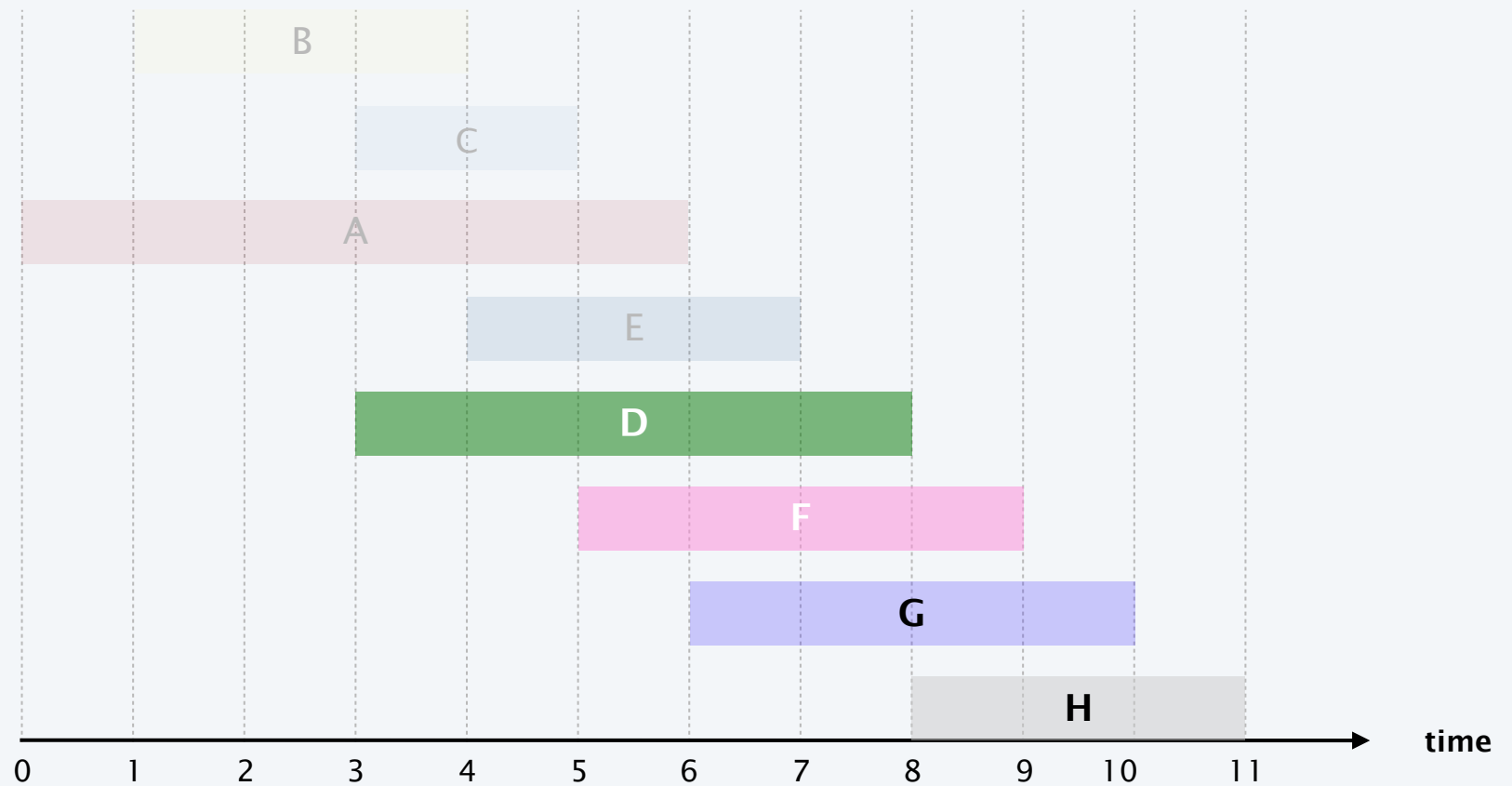


job E is compatible (add to schedule)

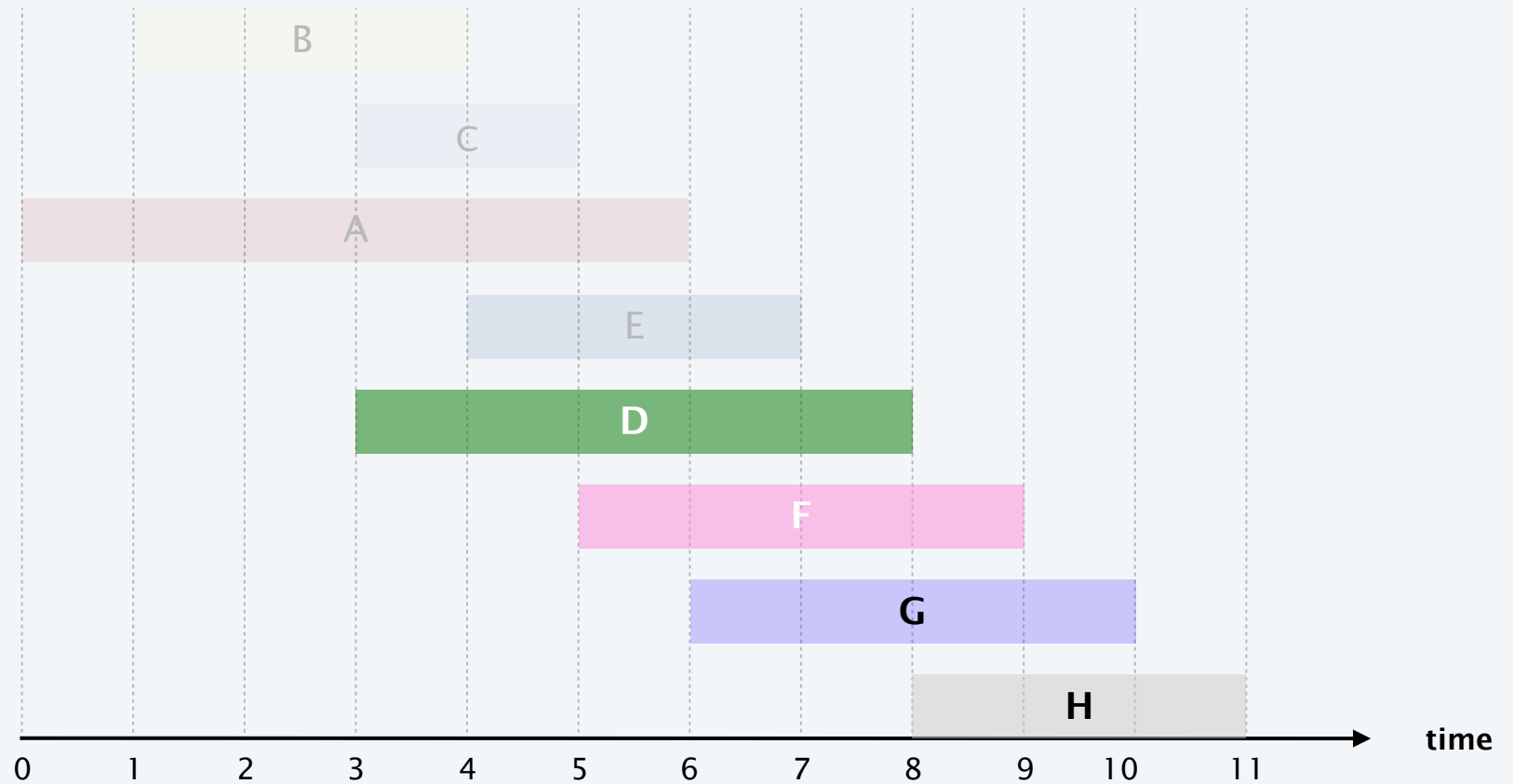


# Earliest-finish-time-first algorithm demo

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# Earliest-finish-time-first algorithm demo

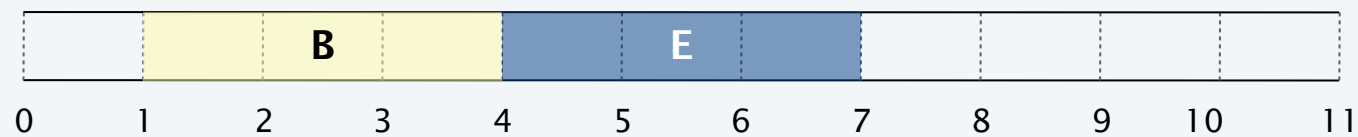
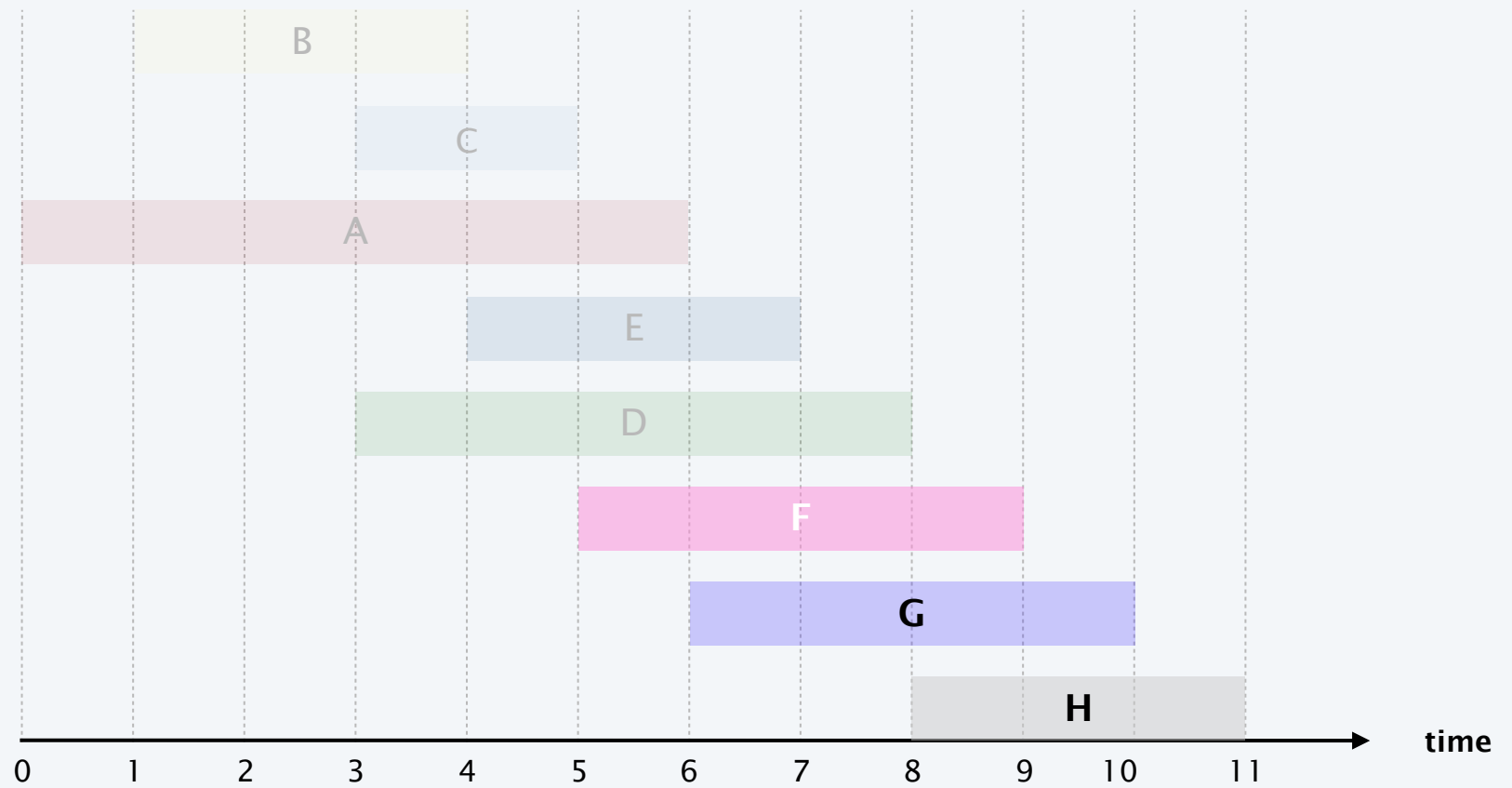


job D is incompatible (do not add to schedule)

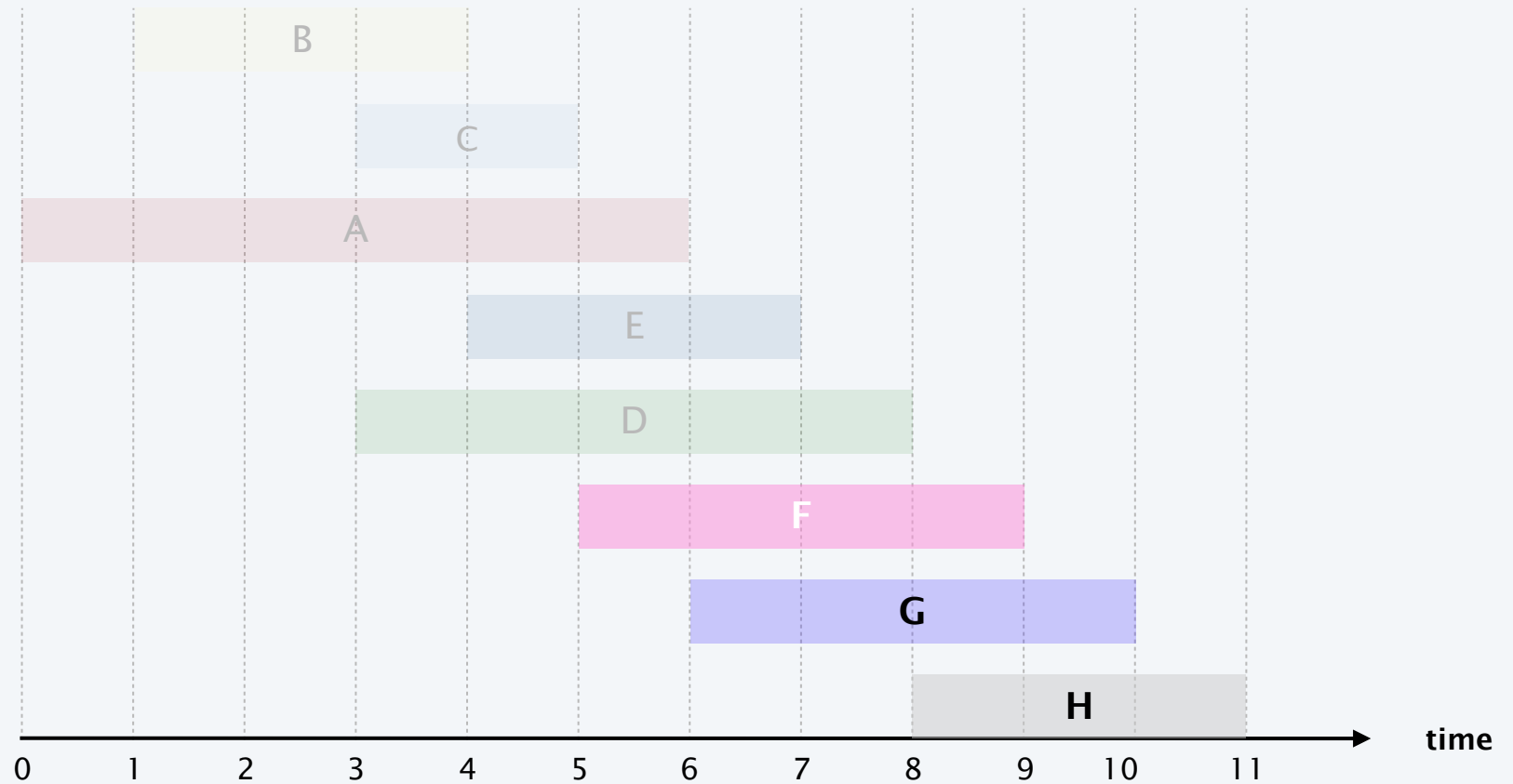


# Earliest-finish-time-first algorithm demo

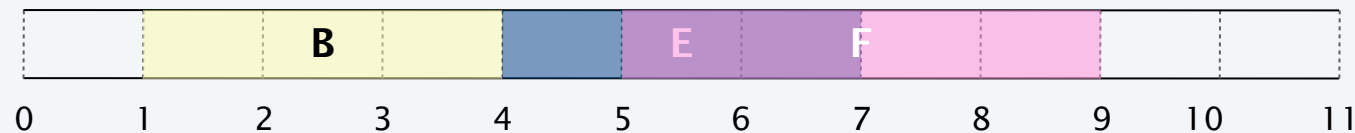
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# Earliest-finish-time-first algorithm demo

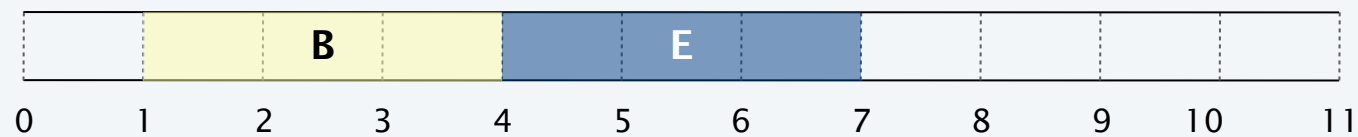
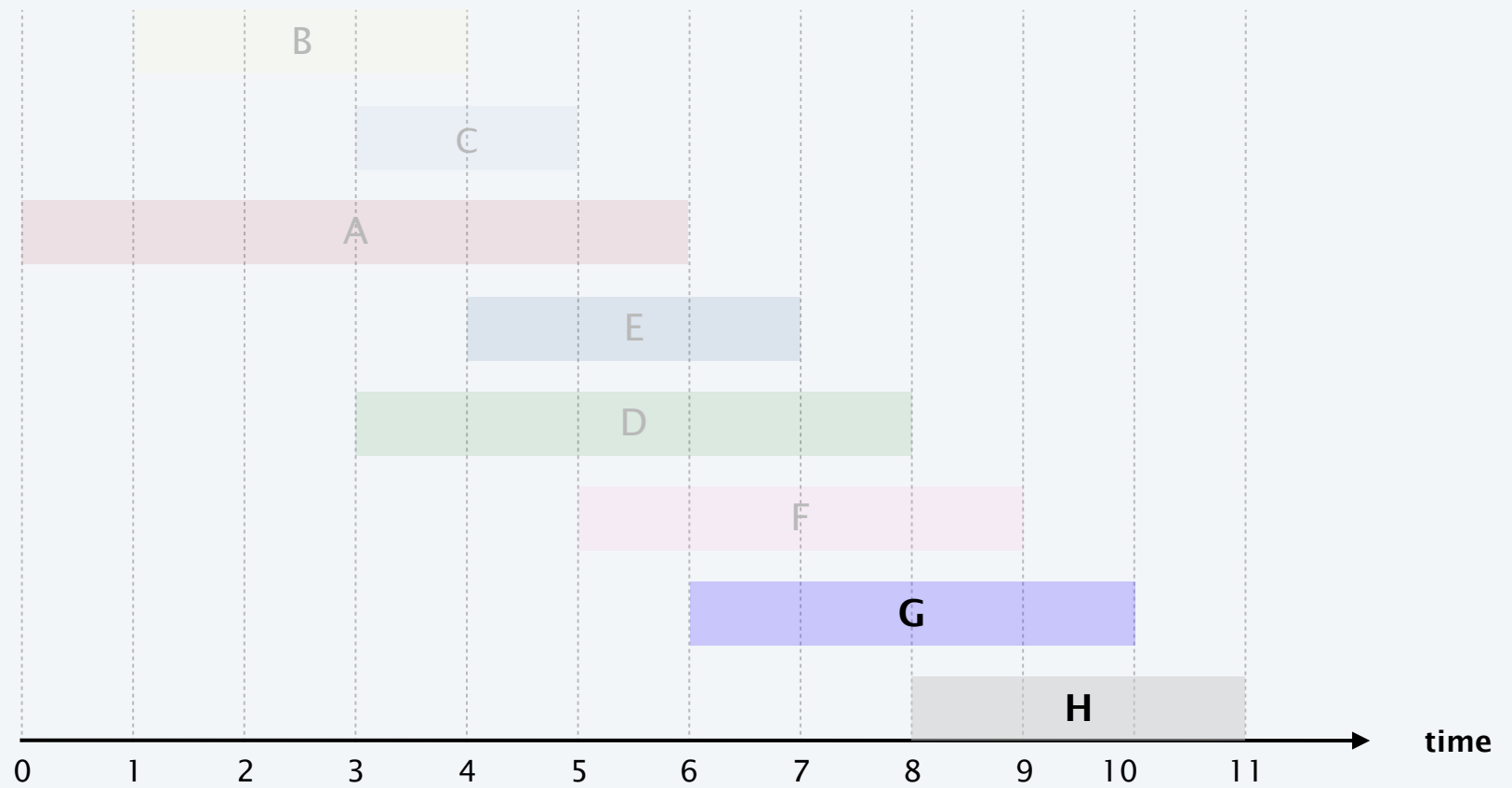


**job F is incompatible (do not add to schedule)**



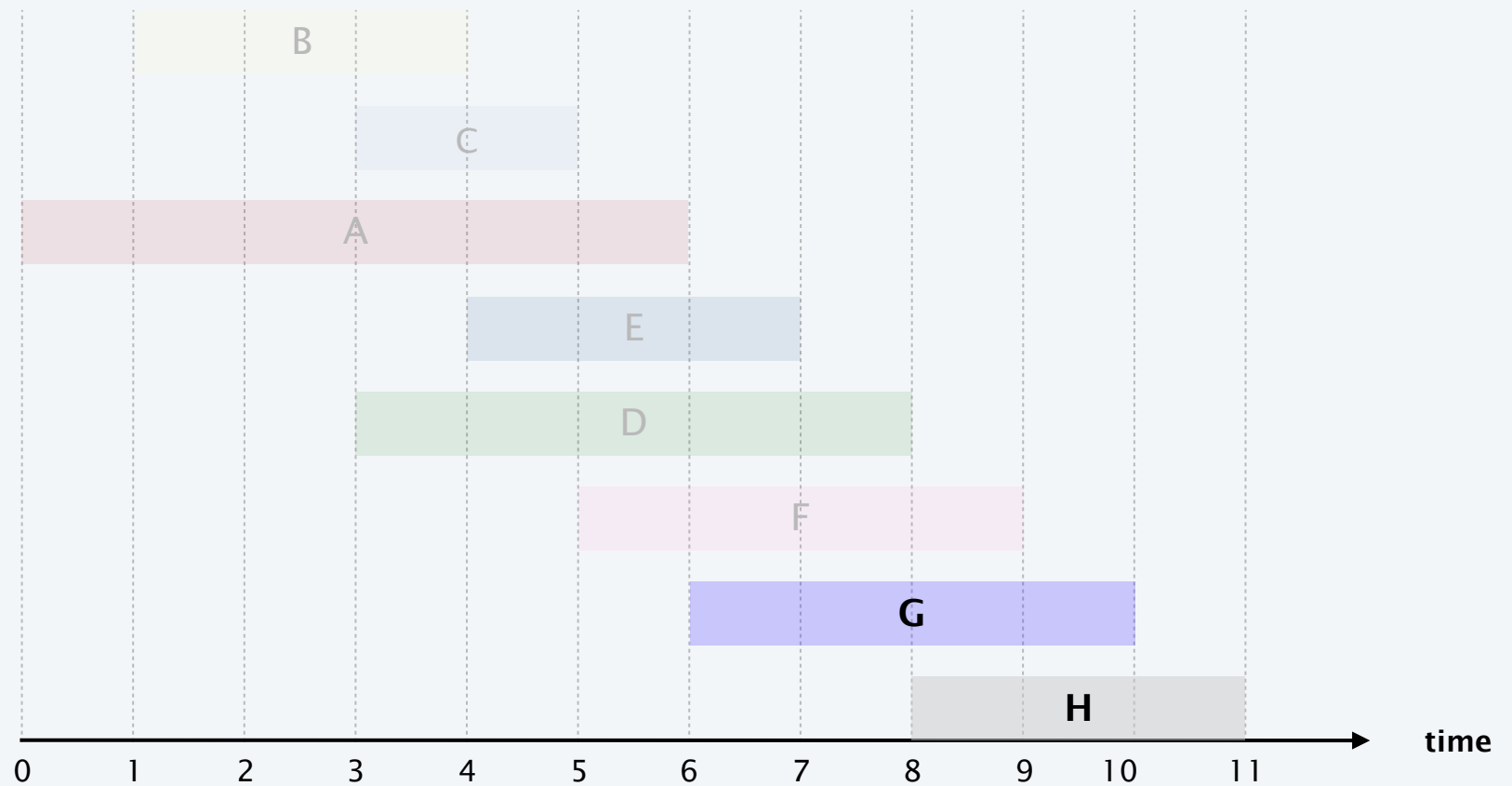
# Earliest-finish-time-first algorithm demo

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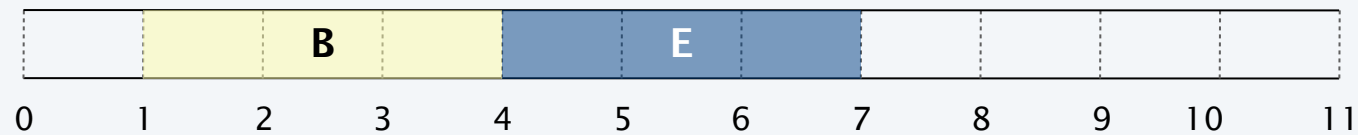


# Earliest-finish-time-first algorithm demo

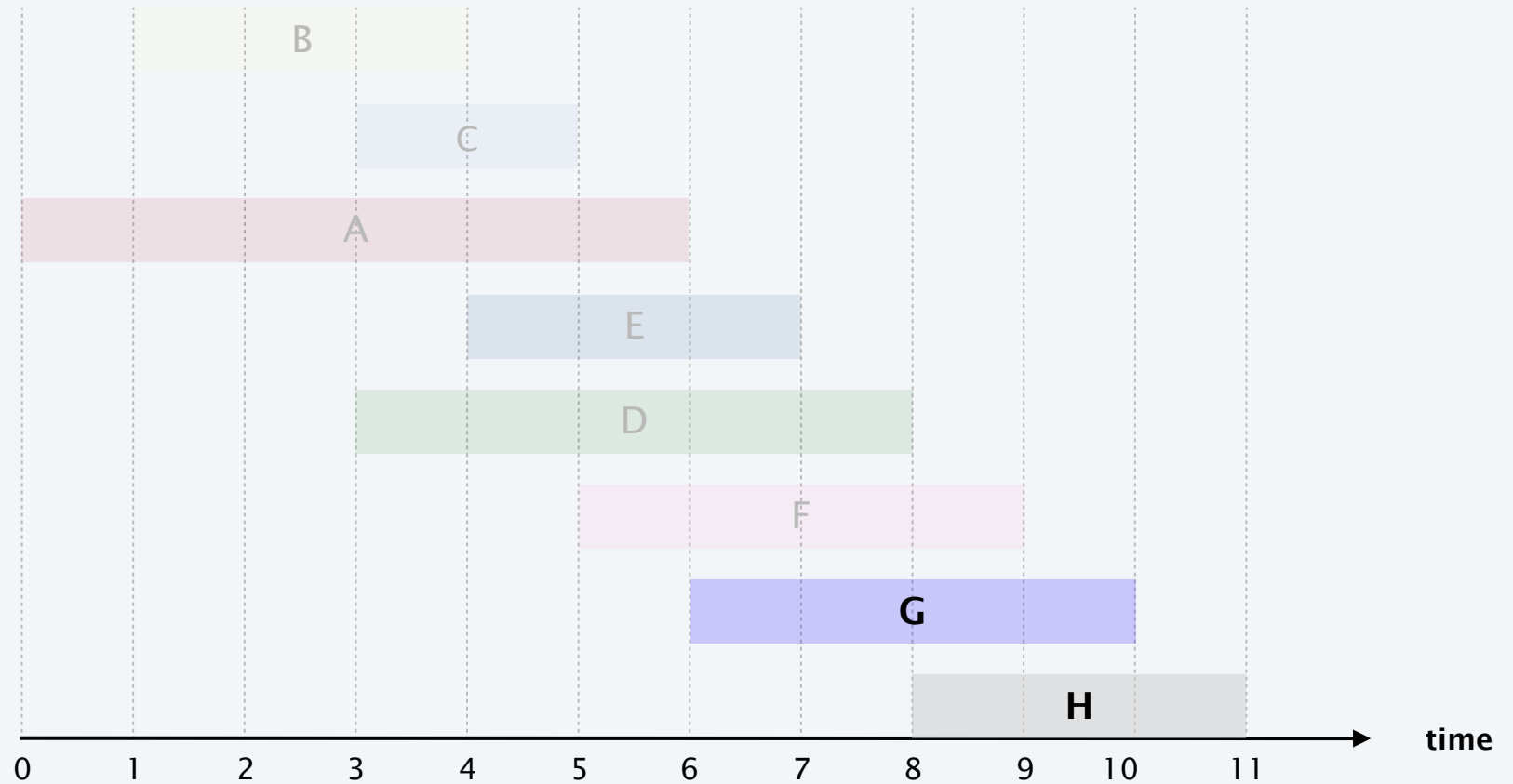
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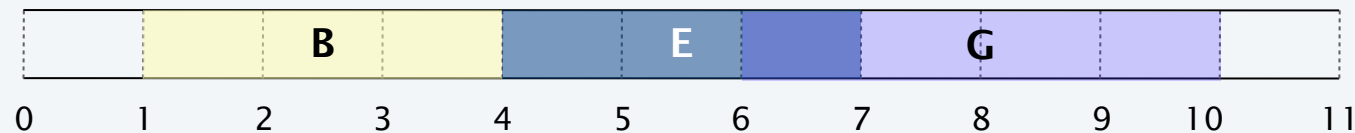
**job G is incompatible (do not add to schedule)**



# Earliest-finish-time-first algorithm demo



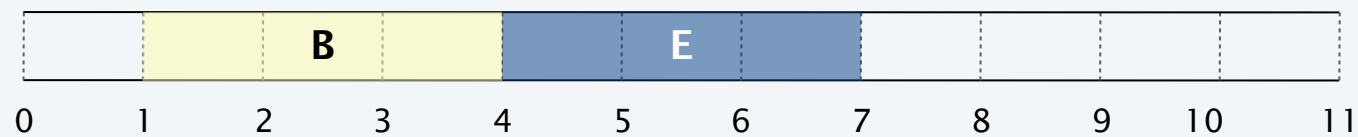
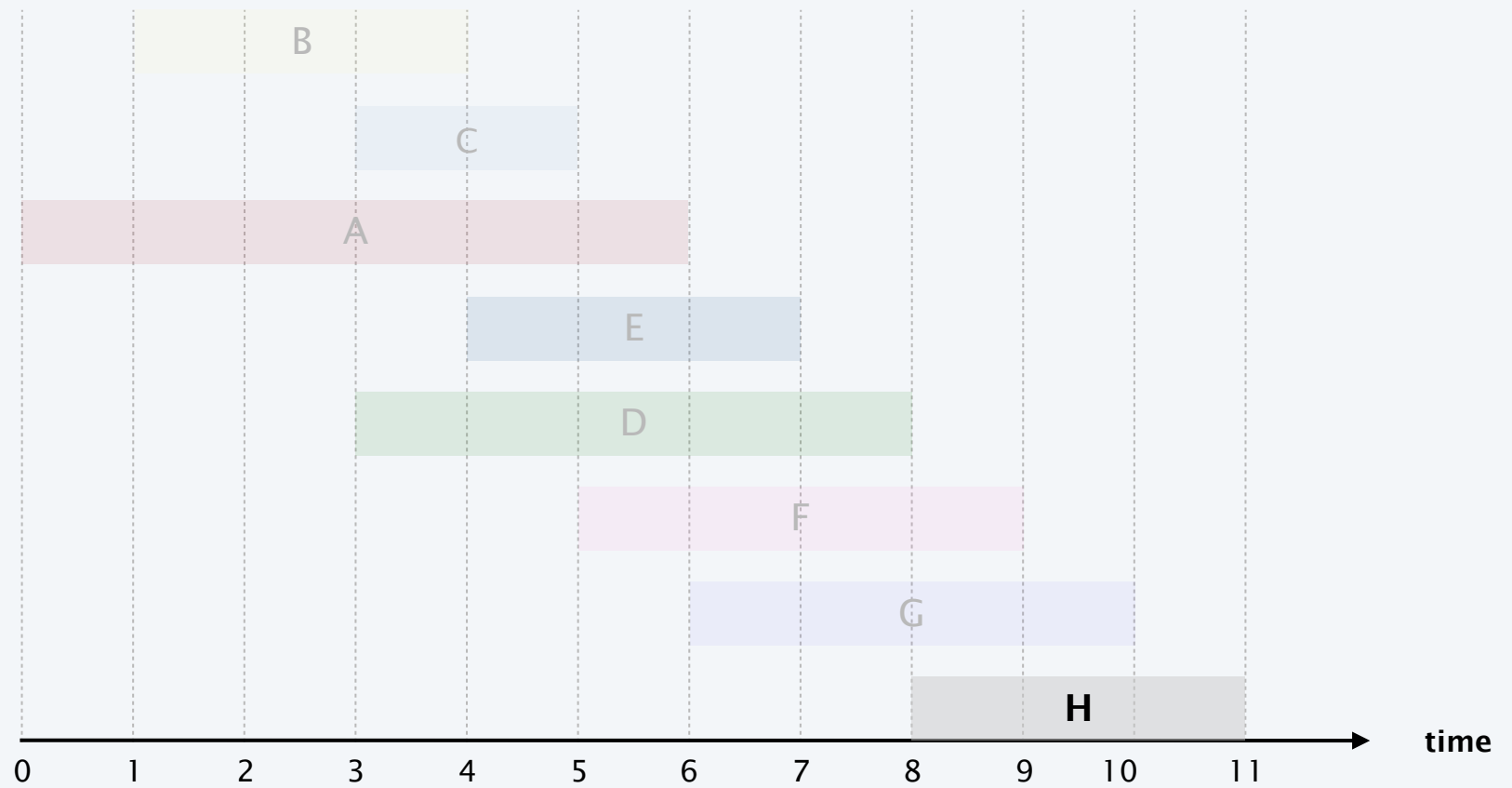
**job G is incompatible (do not add to schedule)**





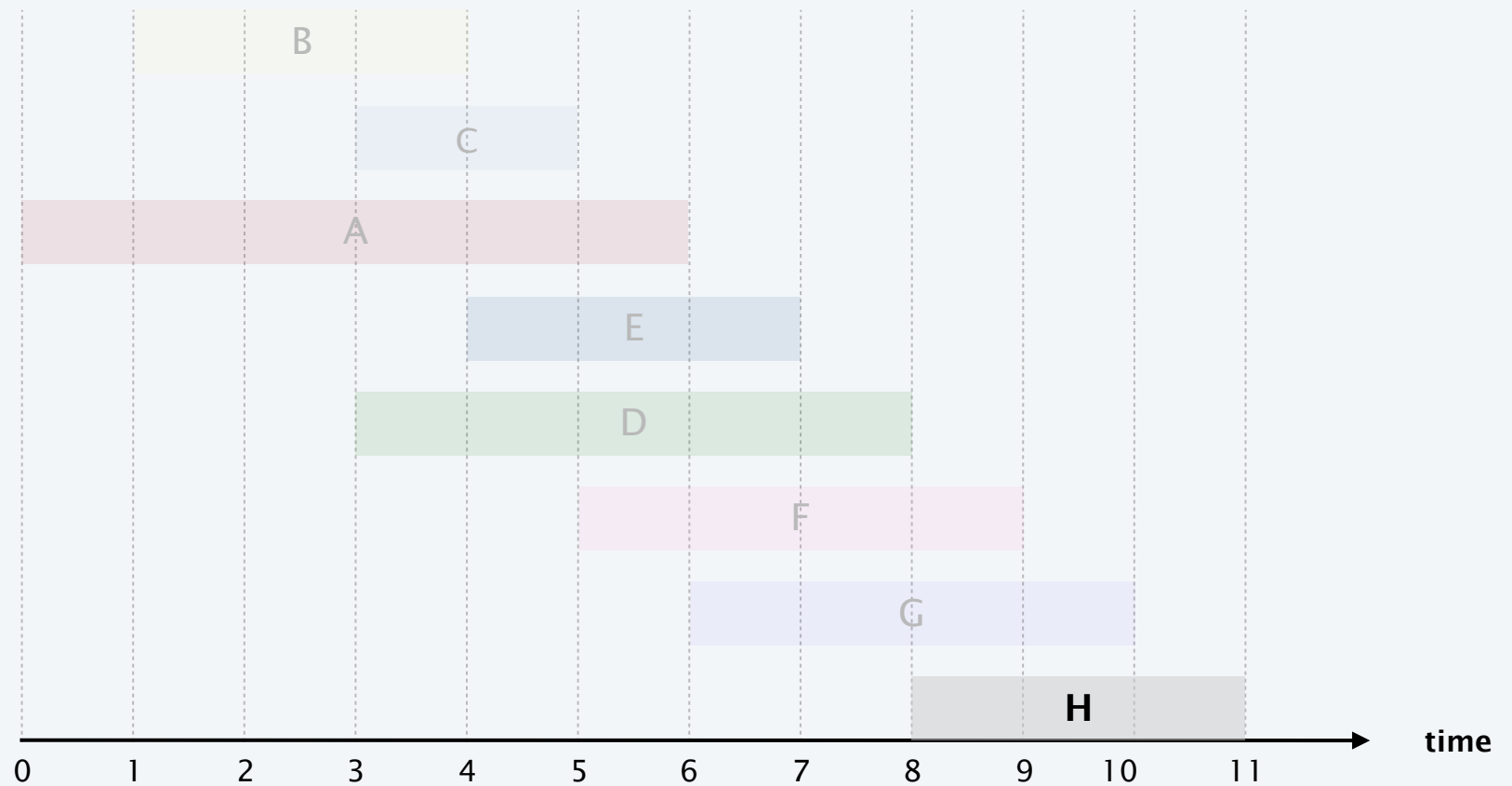
# Earliest-finish-time-first algorithm demo

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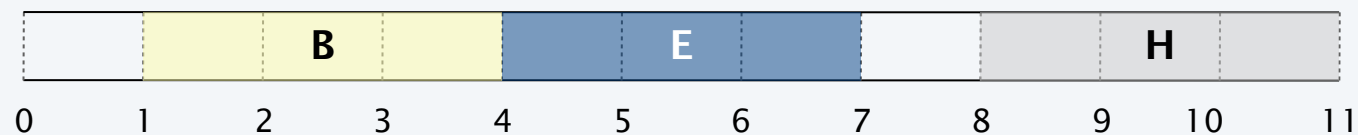


# Earliest-finish-time-first algorithm demo

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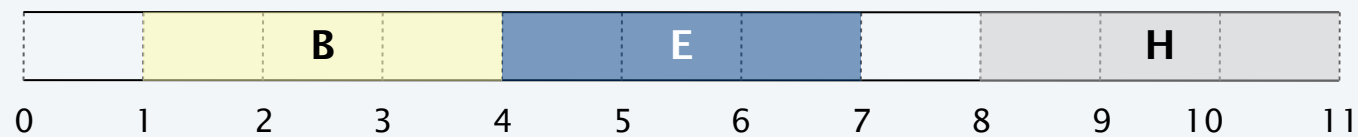
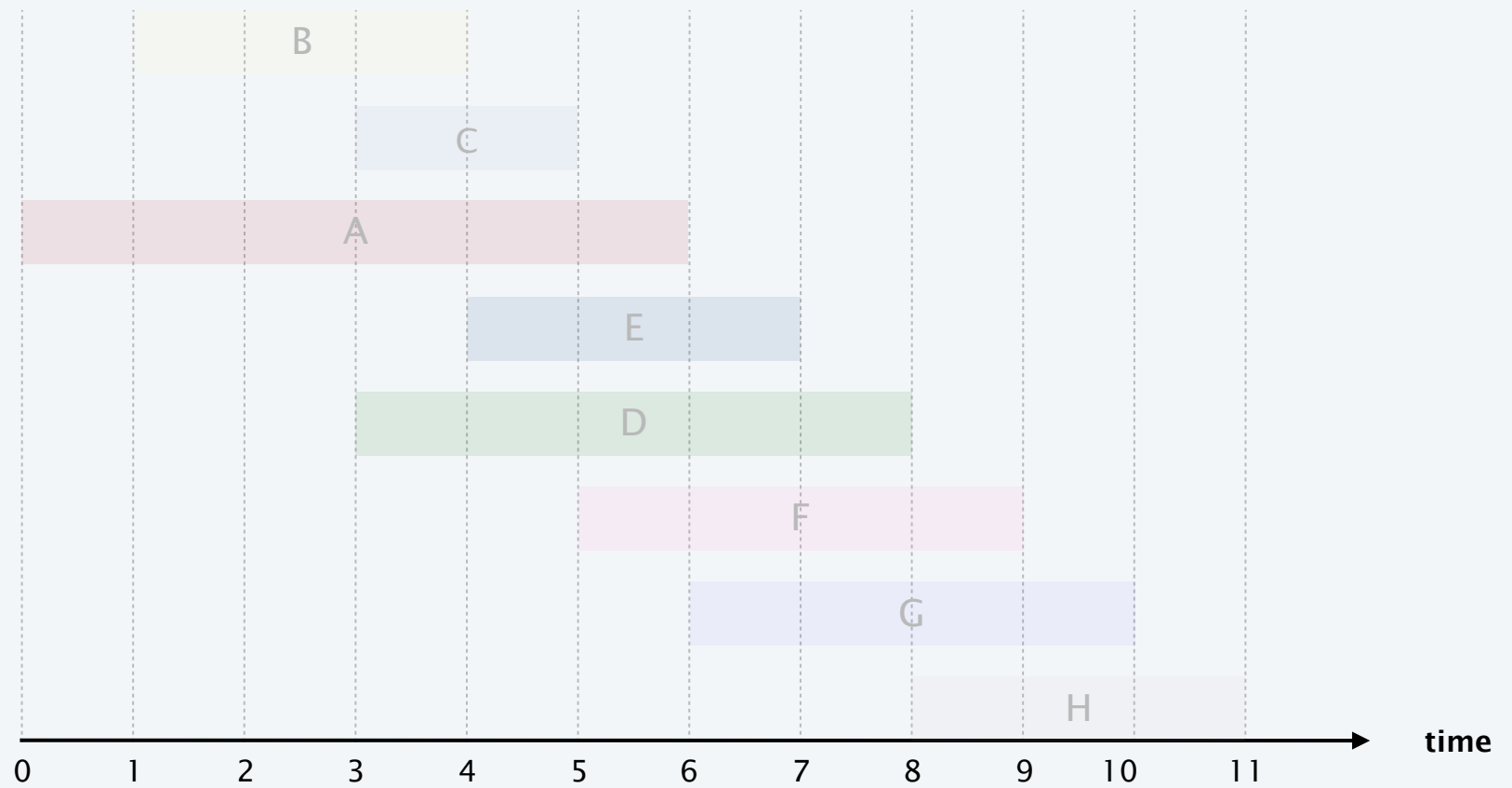


**job H is compatible (add to schedule)**



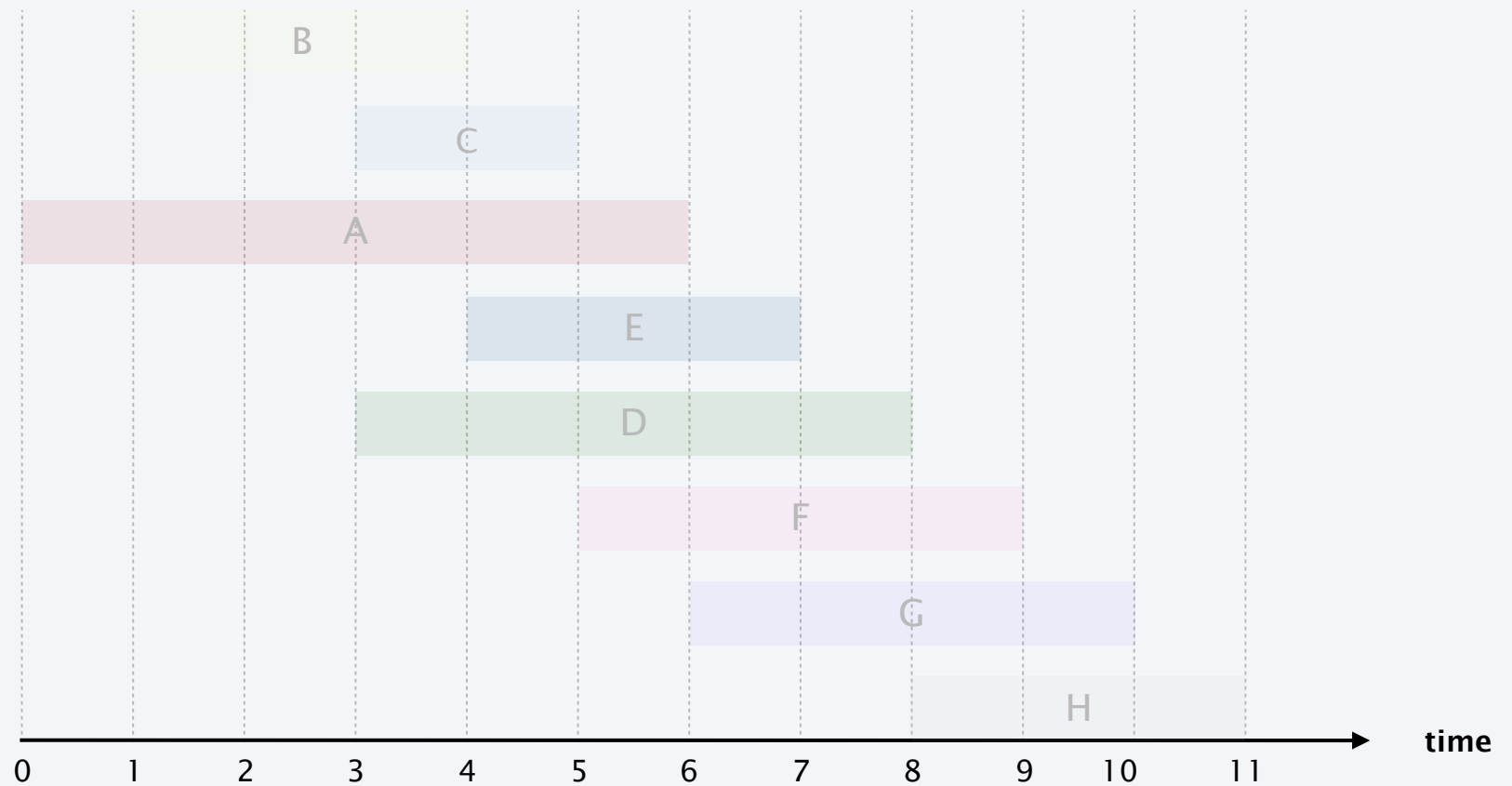
# Earliest-finish-time-first algorithm demo

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# Earliest-finish-time-first algorithm demo

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done (optimal set of jobs)

