4. **Greedy Algorithms I**

- earliest-finish-time-first algorithm demo
Earliest-finish-time-first algorithm demo
Earliest-finish-time-first algorithm demo

job B is compatible (add to schedule)
Earliest-finish-time-first algorithm demo
Earliest-finish-time-first algorithm demo

job C is incompatible (do not add to schedule)
Earliest-finish-time-first algorithm demo

The diagram illustrates the Earliest-finish-time-first algorithm with tasks A, B, C, D, E, F, G, and H. Each task is represented by a bar, with the duration and start time indicated. The tasks are scheduled according to their earliest finish times, ensuring that the algorithm efficiently utilizes the time intervals.
Earliest-finish-time-first algorithm demo

job A is incompatible (do not add to schedule)
Earliest-finish-time-first algorithm demo
Earliest-finish-time-first algorithm demo

job E is compatible (add to schedule)
Earliest-finish-time-first algorithm demo

job D is incompatible (do not add to schedule)
Earliest-finish-time-first algorithm demo
Earliest-finish-time-first algorithm demo

job F is incompatible (do not add to schedule)
Earliest-finish-time-first algorithm demo

The diagram illustrates the Earliest-finish-time-first algorithm with tasks A, B, C, D, E, F, G, and H. Each task is represented by a bar, and the diagram shows the time at which each task finishes. The tasks are ordered based on their earliest finish times, starting with the earliest and moving towards the latest.
Earliest-finish-time-first algorithm demo

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
Earliest-finish-time-first algorithm demo

job H is compatible (add to schedule)
Earliest-finish-time-first algorithm demo

- **A** finishes at time 6
- **B** finishes at time 3
- **C** finishes at time 4
- **D** finishes at time 7
- **E** finishes at time 6
- **F** finishes at time 8
- **G** finishes at time 10
- **H** finishes at time 11
Earliest-finish-time-first algorithm demo

done (an optimal set of jobs)