Arab International University

AADL (Final Assignment)

Activity Selection

Description

You are given a list of activities, each represented by a start time and an end time. Your task is to select the maximum number of non-overlapping activities that can be performed, assuming that you can only work on one activity at a time. Implement a method that returns the maximum number of activities that can be selected.

Example

startTimes: [1, 3, 0, 5, 8, 5]

endTimes: [2, 4, 6, 7, 9, 9]

The maximum number of activities that can be selected is 4, by choosing the activities with indices 0, 1, 3, and 4.

Requirements:

- The method should use a greedy algorithm to find the solution.
- The method should take two integer arrays **startTimes** and **endTimes** as inputs, representing the start and end times of the activities.
- The length of both arrays will be the same, and each element at index **i** in the **startTimes** array corresponds to the start time of the activity at index **i** in the **endTimes** array.
- The method should return the maximum number of activities as an integer.

Notes:

1- **Team working**: two students together.
2- Estimated time is 14 days.

Best Regards