**Requirements:**

Design and implement a scheduling simulator that supports the Earliest Deadline First (EDF) scheduling policy in conjunction with the Priority Inheritance Protocol (PIP).

An event-driven approach is recommended for purposes of efficiency. However, you could use a simpler, but less efficient, time-driven approach.

The input to your simulator will be provided through a text file that your program must parse. You may assume integral time units (i.e., there is no need to support fractions of a time unit).

**Expectations:**

The simulator should output the task running at each time instant along with resource acquisition and release.

**General Steps:**

The steps needed to compile and run the simulator are as follows:

1) The project file has to unzipped, and the whole project folder imported into the source folder of the project in eclipse and run.

**Simulator working:**

(i) The simulator parses the input file and places it task queue.

(ii) Tasks are placed in the active queue if phase of the task > time instant. The active queue is sorted to find the highest priority task depending on earliest deadline.

(iii) If the highest priority task makes a resource request, it will be allocated the resource if the resource is free. Otherwise, the task currently in possession of the resource will be placed at the head of task and executed as highest priority task till it releases the resource.

At this time, the queue is again sorted to find the highest priority task which can then lock the resource.