Scheduling Analysis of Rate-monotonic

- ## Calculate URM :
  - URM (utilization of Rate-monotonic) = 3 * (2^(1/3)-1) = 0.779.
  - U (utilization or CPU load) = (2.5*((60/5)/6 0)) + (4.5*((60/15)/60)) + (3.5*((60/20)/60)) = 0.975.

    Comment :
  - U > URM, then the system guaranteed not schedulable.
- ## Calculate Time demand analysis :
  - ### Task1 : {P:5, E =2.5 , D =5 }

    Provided Time = critical instant + Deadline = 60+5 = 65

    Required Time = 2.5 + critical instant = 62.5

    Comment :

    Required time < provided time, then Task1 is schedulable
  - ### Task2 : {P:15, E =4.5 , D =15 }

    Provided Time = critical instant + Deadline = 60 + 15 = 75

    Required Time = 2.5*(15/5) + 4.5 = 12+ Critical instant = 72

    Comment :

    Required time < provided time, then Task2 is schedulable
  - ### Task3 : {P:20, E =3.5 , D =20 }

    Provided Time = critical instant + Deadline = 60 + 20= 60

    Required Time = 2.5*(20/5) + 4.5*(20/15~(2)) + 3.5 = 22.5 +40 = 62.5

    Comment :

    Required time < provided time, then Task3 is not schedulable
- ## Model the task set using Simso: