# Page Replacement Policies

In this assignment you will develop a memory manager that would implement typical page replacement policies.

You will simulate the replacement of pages in physical memory with pages from the virtual memory whenever page faults occur and no entries are available in the page look up table. The size of page look up table (number of entries), physical memory size and virtual memory size are variables to the program.

Requests to access physical memory pages arrive following Poisson random variable distribution. The mean of Poisson distribution (arrivals per unit time) is variable and would be set as an input to the program. Your program will ask the user for the following inputs:

1- Physical memory size

2- Virtual memory size

3- Page look up table size

4- Mean of arrival rates

Implement the Least Recently Used, First Come First Served and Least Frequently Used Policies. For each policy, plot the arrival rate versus the number of page faults for different memory sizes. Repeat the plot for different page look up table size.

The values of memory size both physical and virtual, page looks up tables, arrival rates are arbitrarily chosen to span wide range from low to high values. What is you conclusion on the most influential factors that affect replacement policies.