



**National University**  
of computer and emerging sciences

## Assignment 3

CS2001-Data Structures

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So, We have chosen to use Max heaps in our Assignment. So for the working of VMs, we basically have created a max heap of VMs that would contain all the Vms that we are gonna use in this assignment. And every vm would have Maxheaps of the Jobs that are being assigned. So All the jobs would be entered through a file, and the program would read the file and then store it in Jobs. So first when the jobs would be finalized, All the jobs would be then assigned to vms. And Vm would process the jobs. And would be inserted in The heap. And After the process would End. All the jobs and their time taken, would be displayed.

There would be an option to see if there's a faulty Machine, it would have a very slight chance that there would be a Faulty machine, but if there exists. It would be Replaced with a new VM that would occupy all the Remaining Tasks of the first VM.

So yeah That's the implementation that we used.