**SSN College of Engineering, Kalavakkam**

**Department of Computer Science and Engineering**

**III Semester - CSE**

# UCS 1312 Data Structures Lab Laboratory

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| **Academic Year: 2019-2020** | **Batch: 2018-2022** |

**Exercise 9: Design of priority queue using min binary heap**

Design a priority queue using min binary heap. An item in the priority queue consists of employee id, employee name and salary amount. The queue supports two operations, namely, insertion and deletion.

The priorityQueueADT consists of empDetails, left and right children. The structure empDetails has the employee-id, employee-name and salary. Implement the following methods.

* void insert(struct priorityQueueADT \*P, struct empDetails x) – Insertion of the details of a new employee into priority queue
* void disp(struct priorityQueueADT \*P) – Display the information about the employees (Hierarchically)
* empDetails\* delete(struct priorityQueueADT \*P) – Will remove the employee at the root of the min binary heap from the queue

Note:

In order to implement this dictionary application,

* It is necessary to create a file that has priorityQueue ADT and implementation of above-mentioned functions
* Another file will be created with only function prototypes
* One more file will be created to develop dictionary application that utilizes the priorityQueueADT.