

## README for source files

Following files/directories are present in the directory:

1. `input.dat`: input for algorithm
2. `node.py`: class defining node of the tree
3. `run.py`: defining worker class, input, optimal solution using greedy and distributed queue and output
4. `distributed_system`:
  - a. `task.py`: defined tasks

Distributed task queues: 3 task queues are used

1. `first_queue`: to get the sum of the minimum value of the lower bound of the data.
2. `second_queue`: to get the upper bound of data Greedy algorithm.
3. `third_queue`: Initialize the worker allocation flag.

For starting distributed queues

```
$ celery -A distributed_system.tasks worker -l debug -Q first_queue
$ celery -A distributed_system.tasks worker -l debug -Q second_queue
$ celery -A distributed_system.tasks worker -l debug -Q third_queue
```

In-memory DB: Redis is used, port- 6379