5.1 Conclusions

Within the past few years, there have been several research efforts made to improve the performance of cloud load balancing. There are many fundamentals issue that has been studied but due to the size of complexity of cloud computing some issues are still to be open for further development. Performance is still a challenging task that we have to take into consideration. There have been numbers of algorithms, methods to support performance in cloud computing. There is a need to explore it more as there may be many unsolved problems regarding performance in cloud computing.

Proposed SKYMAX algorithms in CloudSim are discussed with simulation tools and a detailed layered architecture is given to understand the functioning of CloudSim. We have proposed an SKYMAX algorithm for cloud load balancing in the cloud environment, simulation results are presented for proposed algorithm. In proposed algorithm, we have use the concept of queue and MERT (minimum expected response time). Through this concept we have minimized the response time and data processing time of the request. We have the both parameters increase the cost is automatically decreasing. In proposed algorithm check four conditions to make the best accuracy to find VM for the user request. A comparison of Throttled algorithm and Proposed SKYMAX algorithm is given and results shown so in terms of response time, data processing time proposed SKYMAX algorithm will requests to destinations with less time and fully resource utilization. The simulation results are generated for comparison of Throttled algorithm and Proposed SKYMAX algorithm for overall performance the response time, data processing time shown graphs with all these parameters. Simulation results shown that Proposed SKYMAX algorithm has the minimum response time to implement the request so it is good for the quality of service and aspect of overall performance. The basic difference between the both algorithms is very less, but generally, the graph for Proposed SKYMAX algorithm lies above than that of throttled algorithm for most cases. However, the Proposed SKYMAX algorithm performance is better. These results are implementing in simulation tool. May be the results will vary when it will be implement in real
environment. The conclusion’s that the Proposed SKYMAX algorithm performs well for overall performance, data processing time and cost in the cloud environment. As per the performance is concerned Proposed SKYMAX algorithm generates minimum response time and cost.

5.2 Future Work

As we proposed SKYMAX Algorithm and analysed of its performance based on simulation study, still there are many areas where we can extend our research.

- We have used predefined request in proposed SKYMAX algorithm and Numbers of requests that are limited. We may enhance the type of number requests in proposed algorithm as example neno request.
- As we list out various parameters for SKYMAX, We have used only four parameters in proposed work In future we will check the performance of SKYMAX by changing the different parameters like delay, execution time, and throughput.
- In proposed work using the concept of the queue in three times to store request and arrange in ascending order according to MERT(Minimum expected response time). Use of queue again and again increases the complexity of the algorithm. It also increases request servicing time. So in future, it will address this problem and decrease the number of the queue usage.
- In proposed algorithm we taken a small size of Virtual machines(VM’s) to implement it with different variation of user bases, simulation time and Data centers. It can be enhanced into large or very large in size (increasing VM’s numbers up to thousand to lakh)