Virtual Machine Allocation Policy in Cloud Computing Using CloudSim

**Abstract:** Cloud computing is a very powerful concept, that can be used to enhance the next generation data centre and allow service provider to use data centre capability provided by cloud and develop the application based on user requirements. Data centre of this cloud computing has huge number of resources and list of application (with different architecture, configuration and requirement for deployment) to use those resources.

Cloud computing environment uses virtualization concept and provides resources to application by creating and allocating virtual machine to specific applications. Therefore resource allocation policies and load balance policies play a very vital role in allocating and managing the resources among various applications in cloud computing life cycle. CloudSim is an extensible simulation toolkit that enables modelling and simulation of cloud computing environments.

The model proposed by this project for dynamic load balanced policy with considering different attributes and different service level arguments in cloud computing environments helps this environment to utilize their resources and improve performances.

The proposed model uses Hungarian algorithm and the result is verified by simulating this model using CloudSim.