Summary

The study of SOA and DDB administration and its respective tool comprises an important aspect of my research work. The situation in education sector for data uploading which presented itself was immensely responsible in focusing my work. Through this situation and work, I got interested in finding out a utility tool to handle the situation of data uploading. This led to the study on various DB administration tools and their features. A comparative of various existing database tools helped me in identifying the needs for HDMT. At the same time, I was able to develop service oriented architecture for HDMT because of work done in SOA, XML, web services etc. The academic focus on open source tools lead to the development specification of HDMT. Eventually, the various cloud services lead to the deployment specification of HDMT. The DDB environment existing in current times paved way for the SOA based HDMT to be implemented as a tool in context of heterogeneous data migration. At the end of implementation of HDMT, I focused on identifying and analyzing the various factors on which users / IT people / companies analyze SOA based applications.

The study and results published by researchers has given me an insight into the current work and direction of technical working in various fields and technologies. The SOA based architecture of HDMT for the administration of DDBs, specifically for the purpose of heterogeneous data migration would be usable not only by IT aware people of academics but also by IT experts of companies and computer science community. The performance parameters identified in chapter 5 for the purpose of analyzing them with respect to SOA based software systems will be useful to IT managers / experts / professionals involved in taking decisions related to such business and technical situations; to understand, evaluate and implement as per their needs.

Considering all DB administration tools, if a DBA / GDBA are given the opportunity of working with online DB administration tools, then the SOA

approach is most appropriate for dynamic and online services. The various technologies involved in the development of HDMT benefited me so as to provide an insight into their relevance and importance in software system development. The domain knowledge equips oneself with the issues involved in their working which can be evaluated further for their automation. I experienced this important aspect as I have taken a situation related to the education sector for which I have proceeded with automating the heterogeneous data migration for DDB through HDMT. This tool would greatly benefit the colleges approved by AICTE (or other governing bodies) to import their data to the governing body website by sharing some information required by HDMT so as to facilitate the data migration.