Abstract

Today, we live in the world of internet. With the advancement of technology, the amount of data access has increased too many folds. Internet access now is not only limited to computer devices but can now be easily accessed through mobile devices viz. Smartphones, tablets, PDA's. The internet is now available to every common man, and with its use he fires many queries on servers and uploads or downloads data from the internet. In fact, 90% of the world's data came in existence in the last three-four years, and that too because the internet is readily available to each and every common individual. Of these, much data is being uploaded and queried upon by mobile devices. As the number of devices for Internet access has increased, and so is the number of queries fired by the users on a particular server. The time taken by a query to process totally depends on the complexity involved in joining the tables distributed along the network and finally extracting the desired result out of it. Processing and optimization of various queries in mobile devices involve much join computation among data present at different sites that may be static or mobile which in turn requires much energy consumption. A mobile device has limited energy, so, it must be utilized efficiently. Much research work have been done till now, in the field of mobile computation and making efficient use of energy. However, as the mobile devices possess some asymmetric features, and because of that the old techniques used in distributed databases cannot be applied directly.
This paper brings out some methods, to efficiently utilize mobile energy by employing per split semi-join using MapReduce Framework of Hadoop.

References


**Index Terms**

Computer Science  
Database Management

**Keywords**  
Per-Split Semi-Join  
MapReduce  
Hadoop  
Cost Optimization  
Distributed Databases