

# **On the development of a tool that supports OLAP queries**

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## **Abstract**

The aim of this dissertation is the development of an OLAP Tool for the submission of queries relevant to multidimensional data, which is stored in relational databases. This tool is embedded within a general Data Warehouse Architecture and is based on a theoretically defined conceptual and logical model for multidimensional databases. This theoretical model has been proposed from the Ph.D. Candidate of NTUA, Panagiotis Vassiliadis and has been presented in relevant conferences. The model provides the theoretical basis for the space of multidimensional databases and the operations that an OLAP tool should support. Within the scope of the dissertation were the design and the implementation of this system and also the definition, design and implementation of the metadata needed by the tool, which is a structural component of vital importance of such a system. Finally, the OLAP tool that was developed, was tested for the correctness of its results.