Resume

of the theme

“Application of Common Object Request Broker Architecture (CORBA) in biomedicine”

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Biological research today depends on a wide range of software interacting with a large number of disparate data sources. Several hundred relevant sources currently exist, varying in both size and scope. Numerous groups are maintaining and publishing these biological data in a variety of different formats. Over recent years it has been realised that it is very important to find a way in which diverse software, hardware and data sources can work smoothly together, or in popular terms, how interoperability can be achieved. Many attempts at devising a standard data format have been tried but none have been widely adopted. The Common Object Request Broker Architecture (CORBA) defines a set of standards which constitute a coherent framework in which independent data sources and their services can be accessed. Included in the standard are: a formal language, the interface definition language (IDL) in which data and services are specified, and the object request broker (ORB) which is necessary to realise these services.

The subject of the diploma work is web site development which introduces the Common Object Request Broker Architecture (CORBA) application in the field of biomedical Informatics to the readers and users. This work aims to give a short, practical introduction to the application of CORBA in biomedical informatics and it should provide a good understanding of the basic mechanics of the architecture, give a rough overview of its components and provide the reader with some vocabulary used in the OMG documents.

keywords: CORBA, ORB, IDL, biomedicine, interoperability