

Lab* “Online Betting System” (4-6 People)

Online gaming and gambling is very popular. Currently most services are based on a client/server architecture. One single server runs the main application and maintains the game status. Obviously, if the server is down, nobody can change or access her/his data.

Peer-to-peer computing is the sharing of computer resources and services by direct exchange between client systems (peers). Following this approach there is no central server. All participating peers are responsible for maintaining connectivity and consistency and for ensuring fault-tolerance. Thus, if a peer fails, life goes on.

In this lab you will develop an online football betting system, designed for the European Championship 2004. The system should run as an online service, implemented as a distributed system. For this



task you will be given an existing peer-to-peer system that will serve you as a starting point. The main aspects of this lab include: Getting familiar with the given code and extending it, deciding on what kind of data (which granularity might be desired by different users?) to use and what kind of services to provide, implementing a useful and attractive web front-end, as well as some nice extra features such as chat functionality and a message board. An additional goal will be to provide your service as decentralized as possible, such that the crash of one machine (e.g. one web server) cannot crash the whole system. And finally you may try to “sell” your system to some suitable company (e.g. Bluewin or Swisscom), to gain some experience in the professional field.

Skills

- Network programming in Java

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*For the Major in Distributed Systems students have to complete one of our lab projects.