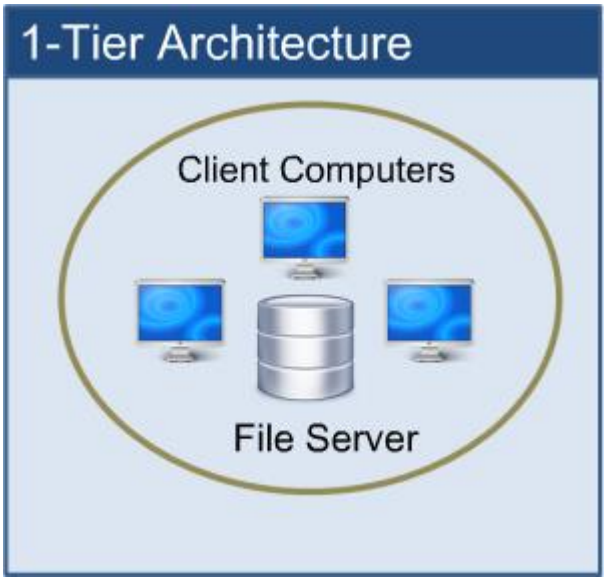
eBay architecture

eBay – one of good examples of e-shop software systems.

Through the *ebay.com* users can browse and search for whatever they'd like to buy or to post their own items for selling for other users. All consumers arrange for payments online and receive products by mail. Its basic functionality is providing a source for trading goods (C2C).

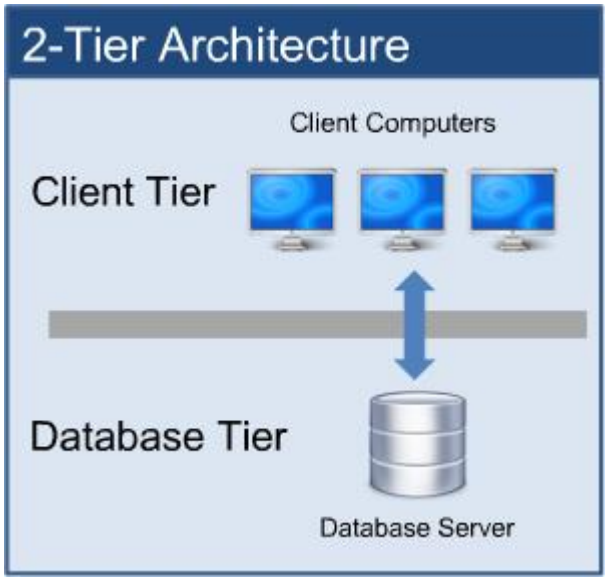
eBay constructed with 1-tier architecture:

- All UI, Business Logic and Database are combined in one single software package – the simplest structure, but the least secure. Also if the amount of data is getting big, the software will start to be very slow.



eBay constructed with 2-tier architecture:

- Client side contains UI and Business Logic, so that when the user runs the application he/she establishes a connection with the database
- Server side handles the Database, where it is more secure.



eBay constructed with 3-tier architecture:

- Presentational layer – provides user interactions, basically what the user sees when surfing through the web site with web browser. It is specified via HTML.
- Business Logic Layer – the whole inner structure of the system. It includes proxy servers to improve performance (e.g. proxy servers cache), load balancing , which “load” between requests from a range of computers running web servers and may redirect to the others when needed.

Then the request reaches a Web server, which are multithreaded, and hence can handle incoming requests. Next the Web server sends it to the application server to implement business logic and application architecture of how clients and servers interact.

- Data Access Layer – The request is finally reaches Database, where it is decided which instruction to do: add, modify, retrieve etc.