Difference Between Two-Tier And Three-Tier database architecture

**1. Two-Tier Database Architecture –**  
In two-tier, the application logic is either buried inside the User Interface on the client or within the database on the server (or both). With two-tier client/server architectures, the user system interface is usually located in the user’s desktop environment and the database management services are usually in a server that is a more powerful machine that services many clients.

**2. Three-Tier Database Architecture –**  
In three-tier, the application logic or process lives in the middle-tier, it is separated from the data and the user interface. Three-tier systems are more scalable, robust and flexible. In addition, they can integrate data from multiple sources. In the three-tier architecture, a middle tier was added between the user system interface client environment and the database management server environment. There are a variety of ways of implementing this middle tier, such as transaction processing monitors, message servers, or application servers.  
  
  
**Difference Between Two-Tier And Three-Tier Database Architecture**

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| S.NO | Two-Tier Database Architecture | Three-Tier Database Architecture |
| 1 | It is a Client-Server Architecture. | It is a Web-based application. |
| 2 | In two-tier, the application logic is either buried inside the user interface on the client or within the database on the server (or both). | In three-tier, the application logic or process resides in the middle-tier, it is separated from the data and the user interface. |
| 3 | Two-tier architecture consists of two layers : Client Tier and Database (Data Tier). | Three-tier architecture consists of three layers : Client Layer, Business Layer and Data Layer. |
| 4 | It is easy to build and maintain. | It is complex to build and maintain. |
| 5 | Two-tier architecture runs slower. | Three-tier architecture runs faster. |
| 6 | It is less secured as client can communicate with database directly. | It is secured as client is not allowed to communicate with database directly. |
| 7 | It results in performance loss whenever the users increase rapidly. | It results in performance loss whenever the system is run on Internet but gives more performance than two-tier architecture. |
| 8 | Example – Contact Management System created using MS-Access or Railway Reservation System, etc. | Example – Designing registration form which contains text box, label, button or a large website on the Internet, etc. |