

Exercise 4.7 (Textbook Pg. 115):

Using a diagram, show how the generic architecture for a web-based application can be implemented using a multi-tier client-server architecture.

Three-tier application in web development

Web server: The user interface is provided by the web server, which is the presentation tier. This is usually a web page or web site, such as an ecommerce site, where the user places items in their shopping cart, enters payment information, or creates an account. The content is usually created using HTML, CSS, and Javascript and can be static or dynamic.

Application server: The application server, which is part of the middle tier, is where the business logic for processing user inputs is stored. This is the tier that, in the ecommerce example, queries the inventory database to return product availability or adds information to a customer's profile. This layer is usually written in Python, Ruby, or PHP and runs a framework like Django, Rails, Symfony, or ASP.NET.

Database server: A web application's data or backend tier is the database server. It's powered by database management systems like MySQL, Oracle, DB2, and PostgreSQL.

Below is a diagram showing web-based application, with web server, application server, and a database server serving as the three tiers.

