

Lecture # 5



N-TIER Architecture

Engr. Fiaz Khan

الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ وَالصَّلَاةُ وَالسَّلَامُ عَلَى سَيِّدِ الْمُرْسَلِينَ
أَمَّا بَعْدُ فَأَعُوذُ بِاللَّهِ مِنَ الشَّيْطَانِ الرَّجِيمِ بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

اللَّهُمَّ افْتَحْ عَلَيْنَا حِكْمَتَكَ وَانْشُرْ
عَلَيْنَا رَحْمَتَكَ يَا ذَا الْجَلَالِ وَالْإِكْرَامِ

Translation

O Allah عَزَّوَجَلَّ! Open the door of knowledge and wisdom for us,
and have mercy on us! O the One Who is the Most Honourable
and Glorious! (*Al-Mustatraf*, vol. 1, pp. 40)

Lets Start Learning

Whoever recites Salat upon me one time, Allah عَزَّوَجَلَّ sends ten blessings upon him. (*Sahih Muslim, pp. 216, Hadees 408*)

جس نے مجھ پر ایک بار دُرودِ پاک پڑھا اللہ عَزَّوَجَلَّ اُس پر دس رَحمتیں بھیجتا ہے۔

(مُسْلِم ص ۲۱۶ حدیث ۴۰۸)



N-Tier Introduction

- N-Tier Applications can easily implement the concepts of Distributed Application Design and Architecture.
- The N-Tier Application provide strategic benefits to Enterprise Solutions.

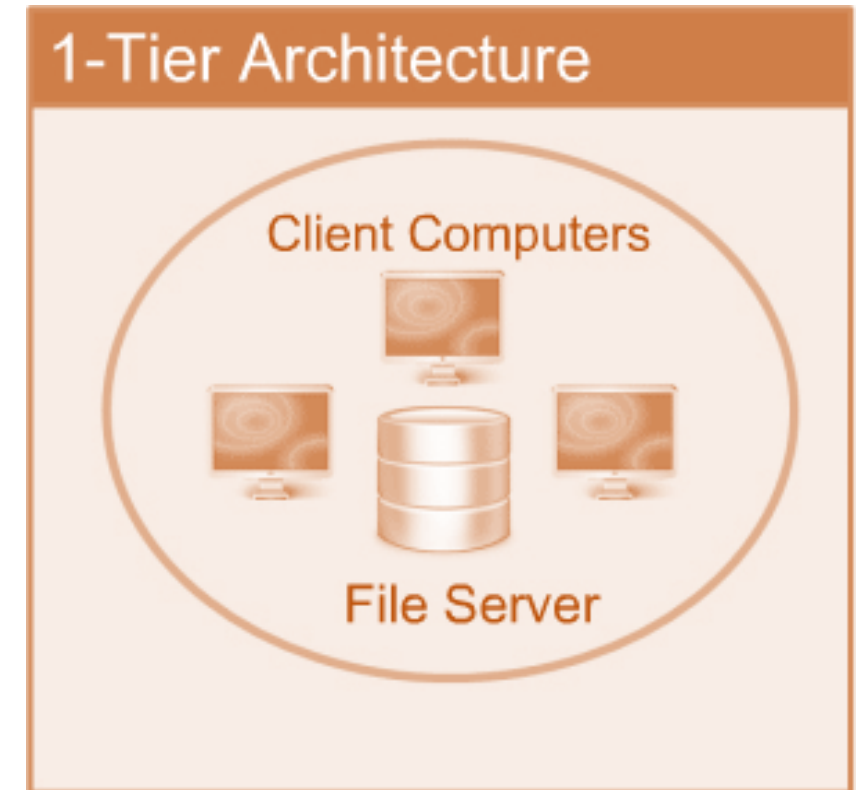


Advantages of N-Tier Architecture

- Security
- Availability and Scalability
- Manageability
- Easy Maintenance
- Data Abstraction

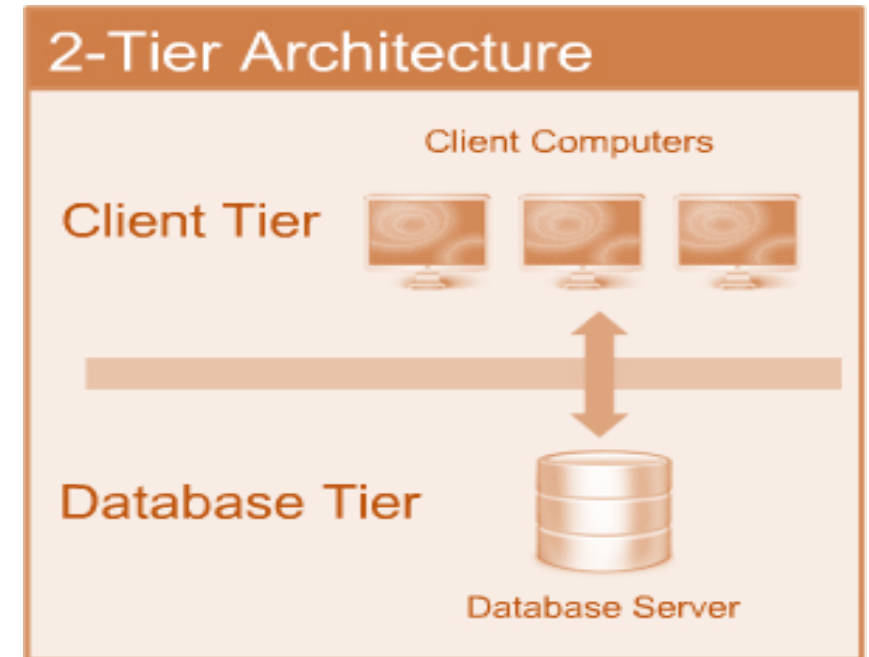
1-Tier Architecture

- One-tier architecture involves putting all of the required components for a software application or technology on a single server or platform.
- Basically, a one-tier architecture keeps all of the elements of an application, including the interface, Middleware and back-end data, in one place.
- Developers see these types of systems as the simplest and most direct way.

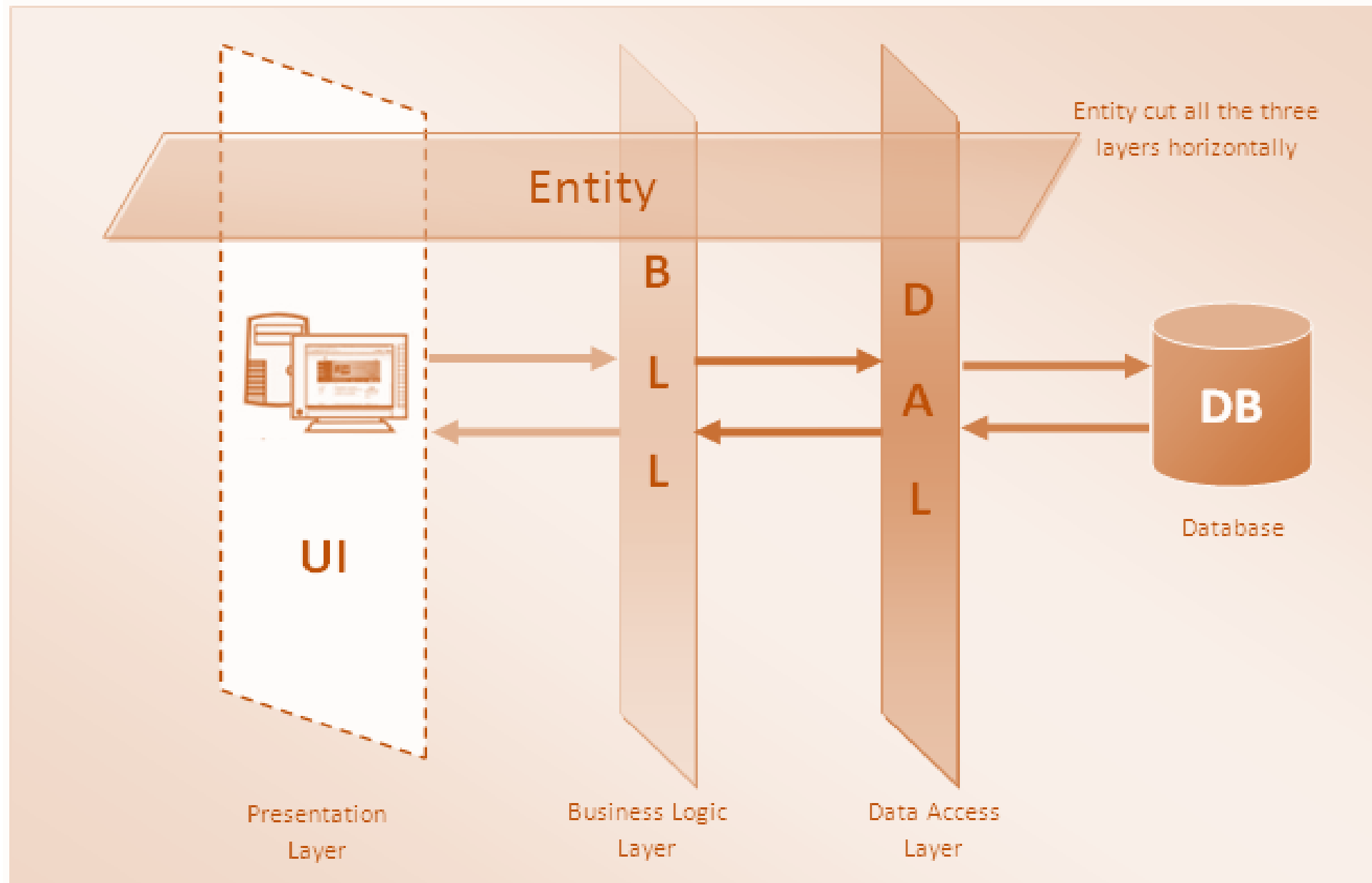


2-Tier Architecture

- The two-tier is based on Client Server architecture.
- The two-tier architecture is like client server application.
- The direct communication takes place between client and server.
- There is no intermediate between client and server.



3-Tier Architecture



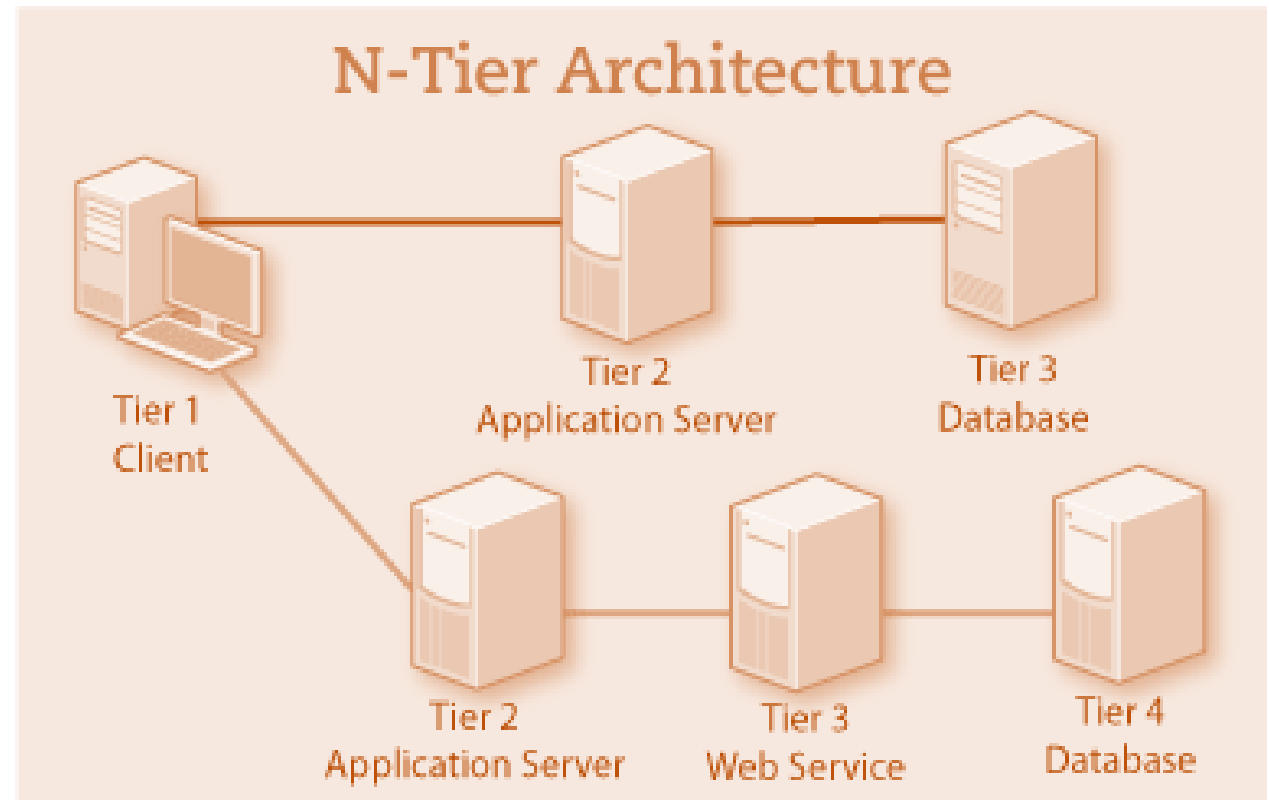
[Basic 3-Tire architecture]

N-Tier Architecture

- N-tier architecture would involve dividing an application into three different tiers.

These would be the

- logic tier,
- the presentation tier, and
- the data tier.



N-Tier vs MVC

- It is the physical separation of the different parts of the application as opposed to the usually conceptual or logical separation of the elements in the model-view-controller (MVC) framework.
- Another difference from the MVC framework is that n-tier layers are connected linearly, meaning all communication must go through the middle layer, which is the logic tier.
- In MVC, there is no actual middle layer because the interaction is triangular; the control layer has access to both the view and model layers and the model also accesses the view; the controller also creates a model based on the requirements and pushes this to the view.



ENGR. FIAZ KHAN



LECTURER COMPUTER SCIENCE

TELF/EF SET / ACEPT CERTIFIED

MICROSOFT ACADEMY TRAINER

ORACLE CERTIFIED PROFESSIONAL

GOOGLE CERTIFIED PROFESSIONAL

Lahore, Pakistan



+92-336-678-2755

muhammad.fiaz@pucit.edu.pk



<https://www.linkedin/in/fiazofficials>



THANK YOU!

Do you have any questions?