

# 62 Entity Framework Interview Questions to Hire Top Developers

## Questions

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1. Can you explain what Entity Framework is and why it's used in .NET applications?
2. Describe the difference between Code First, Database First, and Model First approaches in Entity Framework.
3. How do you handle migrations in Entity Framework? Can you walk us through the process?
4. What are DbContext and DbSet in Entity Framework? How do they interact?
5. How do you optimize Entity Framework performance? Provide some methods or techniques.
6. Can you explain the concept of lazy loading versus eager loading in Entity Framework?
7. What is the role of LINQ in Entity Framework, and how do you use it to query data?
8. Describe how you would handle transactions and concurrency in Entity Framework.
9. Have you encountered any common pitfalls or issues while working with Entity Framework? How did you resolve them?
10. What strategies do you employ for testing and debugging Entity Framework applications?
11. Can you explain what a navigation property is in Entity Framework and why it's useful?
12. How does Entity Framework handle data validation?
13. Can you describe the purpose of Entity Framework's Change Tracker?
14. What are the benefits of using Entity Framework over traditional ADO.NET?
15. How do you configure Entity Framework to connect to a specific database?
16. What is the purpose of the OnModelCreating method in Entity Framework?
17. Can you explain the role of the DbContext class in Entity Framework?
18. What is the difference between a primary key and a foreign key in Entity Framework?
19. How would you implement a custom convention in Entity Framework?
20. Can you explain the difference between TPC, TPH, and TPT inheritance strategies in Entity Framework?
21. What is the purpose of the AsNoTracking() method, and when would you use it?
22. How do you handle complex queries that involve multiple joins in Entity Framework?
23. Can you describe a situation where you would use raw SQL queries in Entity Framework instead of LINQ?
24. What are the advantages and disadvantages of using stored procedures with Entity Framework?
25. How do you implement soft delete in Entity Framework?
26. Can you explain the concept of shadow properties in Entity Framework Core?
27. How would you handle database seeding in Entity Framework Core?
28. What is the purpose of the Include() method, and how does it differ from ThenInclude()?
29. How do you implement a many-to-many relationship in Entity Framework Core without using a junction entity?
30. Can you explain the concept of owned entity types in Entity Framework Core?
31. How would you implement database sharding using Entity Framework?
32. What strategies would you use to optimize the performance of a large-scale Entity Framework application?
33. How do you handle database schema changes in a production environment using Entity Framework migrations?
34. What is the purpose of the Entity Framework's DbContext class?
35. Can you explain the difference between a primary key and a foreign key in Entity Framework?
36. How would you implement a custom convention in Entity Framework?
37. What is the purpose of the AsNoTracking() method, and when would you use it?
38. How do you handle complex queries that involve multiple joins in Entity Framework?
39. Can you describe a situation where you would use raw SQL queries in Entity Framework instead of LINQ?
40. How do you implement soft delete in Entity Framework?
41. How would you implement a repository pattern with Entity Framework?
42. Can you explain how to use Entity Framework with stored procedures?
43. What steps would you take to improve the performance of a slow Entity Framework query?
44. How do you handle database migrations when working in a team environment?
45. Can you describe the process of implementing a custom convention in Entity Framework?
46. How would you implement a global query filter in Entity Framework Core?
47. What approach would you use to implement auditing in an Entity Framework application?
48. How do you handle database connection resilience in Entity Framework?
49. Can you explain the process of implementing database sharding with Entity Framework?
50. How would you approach unit testing Entity Framework queries?
51. What steps would you take to implement a custom value generator in Entity Framework?
52. How do you handle database schema changes in a production environment using Entity Framework migrations?
53. How would you approach handling a large dataset in Entity Framework to ensure efficient querying and manipulation of data?
54. Can you describe a scenario where you had to implement a custom validation rule in your Entity Framework model? What steps did you take?
55. How would you manage database connections in an Entity Framework application to ensure maximum reliability and performance?
56. What techniques would you use to implement caching in an Entity Framework application and why?
57. Describe a time when you had to troubleshoot a performance issue with a specific Entity Framework query. What did you learn from the experience?
58. Can you explain how you would implement a multi-tenant architecture using Entity Framework? What considerations would you keep in mind?
59. Discuss a situation where you had to integrate Entity Framework with another data access technology. How did you handle the integration?