# INFOSOFT IT SOLUTIONS

## **Training | Projects | Placements**

Revathi Apartments, Ameerpet, 1st Floor, Opposite Annapurna Block, Info

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# **ENTITY FRAMEWORK**

### **Introduction to Entity Framework**

- Overview of ORM (Object-Relational Mapping)
- What is Entity Framework?
- Benefits of using Entity Framework
- Versions and features

## **Getting Started**

- Setting up the development environment
- Creating your first Entity Framework application
- Understanding DbContext and DbSet
- Configuring the connection string

## **Database Approaches**

- Code First
  - Creating models
  - Migrations and database initialization
  - Data annotations and Fluent API
- Database First.
  - o Reverse engineering an existing database
  - Updating models from the database
- Model First
  - Designing a model using the designer
  - Generating the database from the model

#### **CRUD Operations**

- Creating entities
- · Reading data
- Updating entities
- Deleting entities
- Change tracking

## **Querying Data**

- LINQ queries
- Filtering, sorting, and paging
- Eager, lazy, and explicit loading
- Asynchronous operations

## **Relationships**

- Defining relationships (one-to-many, many-to-many)
- Navigation properties
- · Foreign keys
- Cascade delete and orphan delete

# **Advanced Topics**

- Stored procedures and raw SQL
- Interceptors and logging
- Transactions and concurrency
- Performance optimization (caching, NoTracking)

## **Code First Migrations**

- Enabling migrations
- Creating and applying migrations
- Rolling back changes
- Seed method

# **Entity Framework Core**

- Differences between EF Core and EF6
- New features in EF Core
- Cross-platform development with EF Core
- Using EF Core with ASP.NET Core