

9
10
11
2

Infocus in Recruitment Drive

Name — Ashish Kumar Mishra

Roll No — 20051685

University — KIIT University

Infocusin Recruitment

Topic: ~~Building~~ Middleware in .NET Core.

Introduction:

Middleware is a crucial concept in .NET Core, forming the backbone of request handling in an ASP.NET Core application. It allows developers to define a pipeline through which every HTTP request and response passes, enabling functionalities such as authentication, logging, exception handling, and routing.

Middleware Pipeline in .NET Core:

The middleware pipeline consists of a sequence of components that process incoming HTTP requests & generate responses. Middleware components can:

- Handle requests directly (short-circuiting the pipeline).
- Modify the request before passing it to the next middleware.
- Process & modify responses before sending them back to the client.

Middleware is configured in the Program.cs file using the `app.UseMiddleware()` method or extension methods such as `app.UseRouting()`, `app.UseAuthentication()`, etc.

Built-in Middleware Components:

- .NET Core provides several built-in middleware components, including:
 - Routing (`app.UseRouting()`)
 - Authentication (`app.UseAuthentication()`)
 - Authorization (`app.UseAuthorization()`)
 - Exception Handling (`app.UseExceptionHandler()`)
 - Static Files (`app.UseStaticFiles()`)

Conclusion

Middleware in .NET Core plays a fundamental role in request handling, enabling developers to implement cross-cutting concerns efficiently. Mastering middleware is essential for building scalable & maintainable .NET Core applications.