### Q1. What is a RESTful Web Service?

A RESTful Web Service is an API that follows REST architecture principles — stateless operations, standard HTTP methods (GET, POST, etc.), and resource-based URLs.

### Q2. Difference Between Web Service and Web API?

| **Feature** | **Web Service** | **Web API** |
| --- | --- | --- |
| Protocol | Mostly SOAP | REST or HTTP |
| Platform | .NET specific | Cross-platform |
| Format | XML | XML, JSON |
| Speed | Slower | Faster |
| Complexity | Higher | Lower |

### Q3. What are HttpRequest and HttpResponse?

**HttpRequest**: Represents the incoming request from a client (URL, headers, body).

**HttpResponse**: Represents the outgoing response to the client (status code, headers, body).

### Q4. What are Action Verbs in Web API?

| **Verb** | **Meaning** |
| --- | --- |
| HttpGet | Retrieve data |
| HttpPost | Create new data |
| HttpPut | Update existing data |
| HttpDelete | Delete existing data |

### Q5. Common HTTP Status Codes

| **Status Code** | **Meaning** |
| --- | --- |
| 200 OK | Request successful |
| 400 Bad Request | Malformed request |
| 401 Unauthorized | Authentication needed |
| 500 Internal Server Error | Server crashed |

### Q6. What is the Structure of a Web API?

Controllers/: Contains all API controllers

Each controller inherits from ControllerBase

Actions are defined using [HttpGet], [HttpPost], etc.

### Q7. What are the Config Files in .NET Core API?

| **File** | **Purpose** |
| --- | --- |
| Startup.cs | Service registration and middleware config |
| appsettings.json | App configuration values (e.g., DB connection) |
| launchSettings.json | How app is launched (profiles, ports, etc.) |