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| **Authentication Method** | **Application Type** | **Use Case** | **Security Needs** | **Scalability** |
| **Basic Authentication** | Web, APIs | Simple authentication for internal APIs | Low (credentials sent in headers) | Low (requires session storage) |
| **Form-Based Authentication** | Web Applications | Traditional login with username/password | Medium (credentials stored in DB) | Moderate (session-based) |
| **JWT (JSON Web Token)** | REST APIs, Microservices | Stateless API authentication | High (signed tokens) | High (no session storage) |
| **OAuth2 (Google, GitHub, Okta, Facebook, Azure AD)** | Web, Mobile, APIs | Social login, third-party authentication | High (token-based security) | High (supports distributed apps) |
| **LDAP Authentication** | Enterprise Applications | Corporate authentication using Active Directory (AD) | High (centralized authentication) | High (scalable with AD integration) |
| **Database Authentication (JDBC)** | Web, APIs | Custom authentication with user DB | Medium (depends on password hashing) | Moderate (DB query load) |
| **SAML2 Authentication (SSO - Single Sign-On)** | Enterprise Web Apps | Large organizations using Okta, Azure AD, Google Workspace | High (SAML assertions, encryption) | High (SSO reduces repeated authentication) |
| **Session-Based Authentication** | Web Applications | Traditional web applications requiring sessions | Medium (session hijacking risks) | Low (server-side sessions) |
| **Multi-Factor Authentication (MFA)** | High-Security Applications | Apps requiring extra security (OTP, biometrics) | Very High (2FA, OTP, TOTP) | Moderate (depends on additional verification) |
| **API Key Authentication** | Internal & External APIs | Protecting API endpoints with custom keys | Medium (API key can be shared) | High (no session storage required) |
| **Custom Authentication Provider** | Any | When default auth methods don’t fit | Customizable (depends on implementation) | Moderate (depends on storage & validation) |