𝟴 𝗘𝘀𝘀𝗲𝗻𝘁𝗶𝗮𝗹 𝗔𝗣𝗜 𝗣𝗿𝗼𝘁𝗼𝗰𝗼𝗹𝘀:  
  
• REST: REpresentational State Transfer - the scalable superstar  
• SOAP: Simple Object Access Protocol - XML-based messaging veteran  
• GraphQL: Query language for flexible data fetching  
• AMQP: Advanced Message Queuing Protocol for reliable communication  
• MQTT: Message Queuing Telemetry Transport - lightweight IoT champion  
• WebSocket: Real-time, bidirectional communication  
• gRPC: High-performance Remote Procedure Calls  
• Webhook: Event-driven HTTP callbacks  
  
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• GET: Retrieve data  
• POST: Create new resources  
• PUT: Update existing resources  
• DELETE: Remove resources  
• PATCH: Partially modify resources  
• HEAD: Get metadata about a resource  
• OPTIONS: Get information about available communication options  
• CONNECT: Establish a network connection to a resource  
• TRACE: Perform a message loop-back test  
  
Key Status Codes to Know:  
  
• 2xx: Success (e.g., 200 OK, 201 Created)  
• 3xx: Redirection (e.g., 301 Moved Permanently)  
• 4xx: Client Errors (e.g., 400 Bad Request, 404 Not Found)  
• 5xx: Server Errors (e.g., 500 Internal Server Error)  
  
Pro Tip: 418 I'm a Teapot exists, but you're unlikely to encounter it in serious APIs!  
  
𝗔𝗣𝗜 𝗗𝗲𝘀𝗶𝗴𝗻 𝗕𝗲𝘀𝘁 𝗣𝗿𝗮𝗰𝘁𝗶𝗰𝗲𝘀:  
  
• Use clear, versioned endpoints (/api/v2/articles)  
• Implement filtering, sorting, and pagination  
• Robust authentication (e.g., OAuth 2.0, JWT)  
• Specify accepted content types  
• Provide comprehensive documentation  
• Rate limiting for API stability  
• Consistent error handling and messaging  
  
Why This Matters:  
  
In our interconnected digital landscape, understanding APIs is crucial for:  
- Building scalable applications  
- Integrating diverse systems  
- Enabling IoT and real-time communications  
- Developing microservices architectures

