

TECHNOLOGY SERIES - T101
**A Starters Guide to API Design and
Scalable Application Architecture**

Summary

APIs (Application Program Interfaces) is how programs can talk with other programs and is a design consideration for many products. Why should you build an application with an API? What are the top 5 requirements of designing an API with examples? What are some open source JavaScript frameworks that can help you design and build your API. When you complete this workshop, you should know why APIs are an important part of application design and have a starter guide on how to approach API design and a check list on the 5 design requirements for an API.

Outline

- Introductions
- What is an API?
- Thinking about application design and architecture
- Top 5 API design requirements
- Immersive Workshop - Building an API with ExpressJS
 - Designing with OpenAPI
 - Using sequence diagrams to document workflow
 - Validating data using schema validation
 - Creating reliable integration tests
 - Securing the API with JWTs & scopes
 - Using markdown to create concise documentation
 - Configuring continuous delivery
- Summary and review

Prerequisites

- At least 6 months software development experience
- Solid understanding of:
 - NodeJS & JavaScript
 - JSON
 - HTTP
 - Git & Github account
- Code editor (recommend VSCode)

About your presenter

Tom Wilson is the Founder/CEO of [hyper63](#), a company that provides hyper a meta-service framework to remove the pain of working with cloud services. Before hyper, Tom was the CTIO with Tabula Rasa HealthCare Inc (TRHC). During this period, Tom served the local technology community, inspiring and mentoring engineers. Connect with Tom on [LinkedIn](#).

Vitals

Cost: \$60 (\$50 CDC members)

Class length: 3 hours

Class size: 20 persons

Difficulty: Intermediate

Laptop: Recommended but not required

Location: Flagship @ Charleston Tech Center
997 Morrison Dr, 2nd Floor
Downtown Charleston

Parking: CTC Garage (*immediately adjacent*)
4 Conroy Street

Questions? 843.607.1264 or info@charlestdigitalcorridor.com