

Restful APIs

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Who Am I

- Kyle Erwin
 - Studied at Tuks, now Stellies
 - Joined Allan Gray in 2019
 - Worked as a backend dev
 - DevOps Engineer
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Allan Gray

- Investment management company
 - Client focused
 - Large software dev department
 - Many technologies working together
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Purpose of Today's talk

- What is a RESTful api
 - Common HTTP methods
 - HTTP response codes
 - HTTP Headers
 - What is an endpoint
 - Path Parameters
 - Query Parameters
 - Open APIs
 - Postman
 - Coding example
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REST

- Representational state transfer
 - Architectural style
 - Dictates communication between systems
 - Used in web services
 - Current standard
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RESTful APIs

- A RESTful API uses HTTP methods as a form of communication between systems
 - Each API should be designed for a specific purpose
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Common HTTP Methods

- POST
- GET
- Patch
- DELETE
- PUT

HTTP Response codes

- Informational - 100 codes
- Successful - 200 codes
- Redirection - 300 codes
- ClientError - 400 codes
- ServerError - 500 codes

HTTP Headers

- Request Headers
 - Response Headers
 - Authentication
 - Caching
 - Content-Type
 - Many more
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Endpoints

- The point where two systems communicate
 - The last (end) point of a system's control
 - For example, a client-to-server relationship
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Path Parameters

Parameters that
contribute to the path
of a url.

Path Parameters

- `facebook/profile/{id}`
- `instagram/profile/{id}/post/{post_id}`

Query Parameters

Optional data used for
narrowing down requests

Query Parameters

- `google/search?query=dogs`
- `uber/eats/search?type=burgers&distance=5km`
- `uber/eats/restaurant/{id}?type=burgers&distance=5km`

Putting it into Practice

- Open APIs
 - Dog API
 - Rick and Morty API
 - More..
 - Investigate API using Postman
 - Code CRUD operations using Java
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