

REST HTTP Basics



REST over HTTP

- Most common use of REST is over HTTP
- Leverage HTTP methods for CRUD operations

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HTTP Method

CRUD Operation

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HTTP Method	CRUD Operation
POST	<u>C</u> reate a new entity

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GET	<u>R</u> ead a list of entities or single entity

REST over HTTP

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HTTP Method	CRUD Operation
POST	<u>Create a new entity</u>
GET	<u>Read a list of entities or single entity</u>
PUT	<u>Update an existing entity</u>

REST over HTTP

- Most common use of REST is over HTTP
- Leverage HTTP methods for CRUD operations

HTTP Method	CRUD Operation
POST	<u>Create a new entity</u>
GET	<u>Read a list of entities or single entity</u>
PUT	<u>Update an existing entity</u>
DELETE	<u>Delete an existing entity</u>

HTTP Messages

HTTP Messages

Client

My
CRM
App

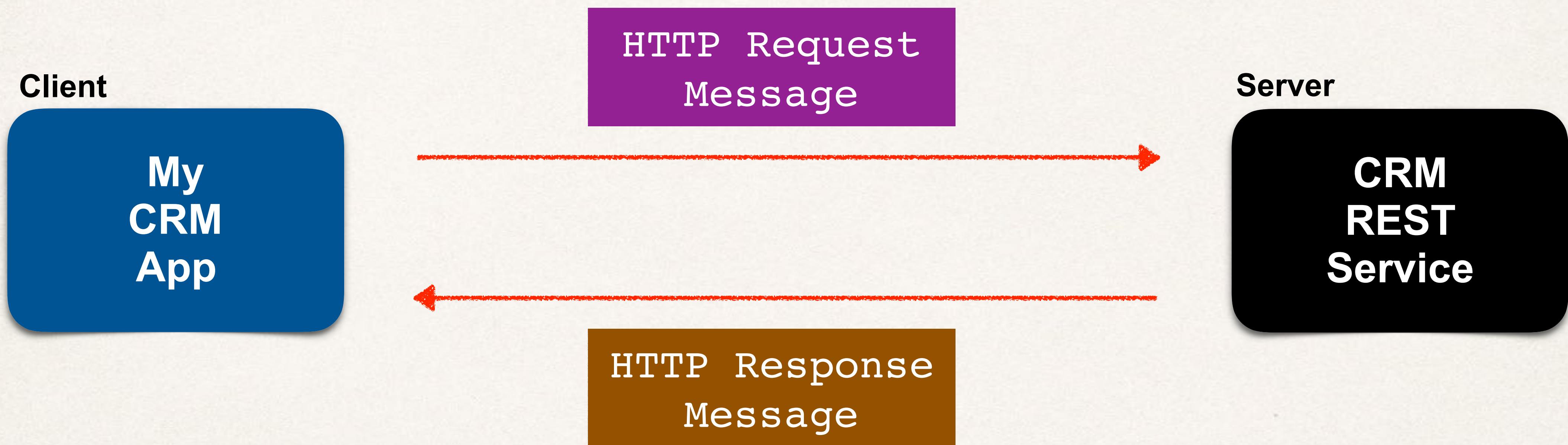
Server

CRM
REST
Service

HTTP Messages



HTTP Messages



HTTP Request Message

HTTP Request Message

Request line

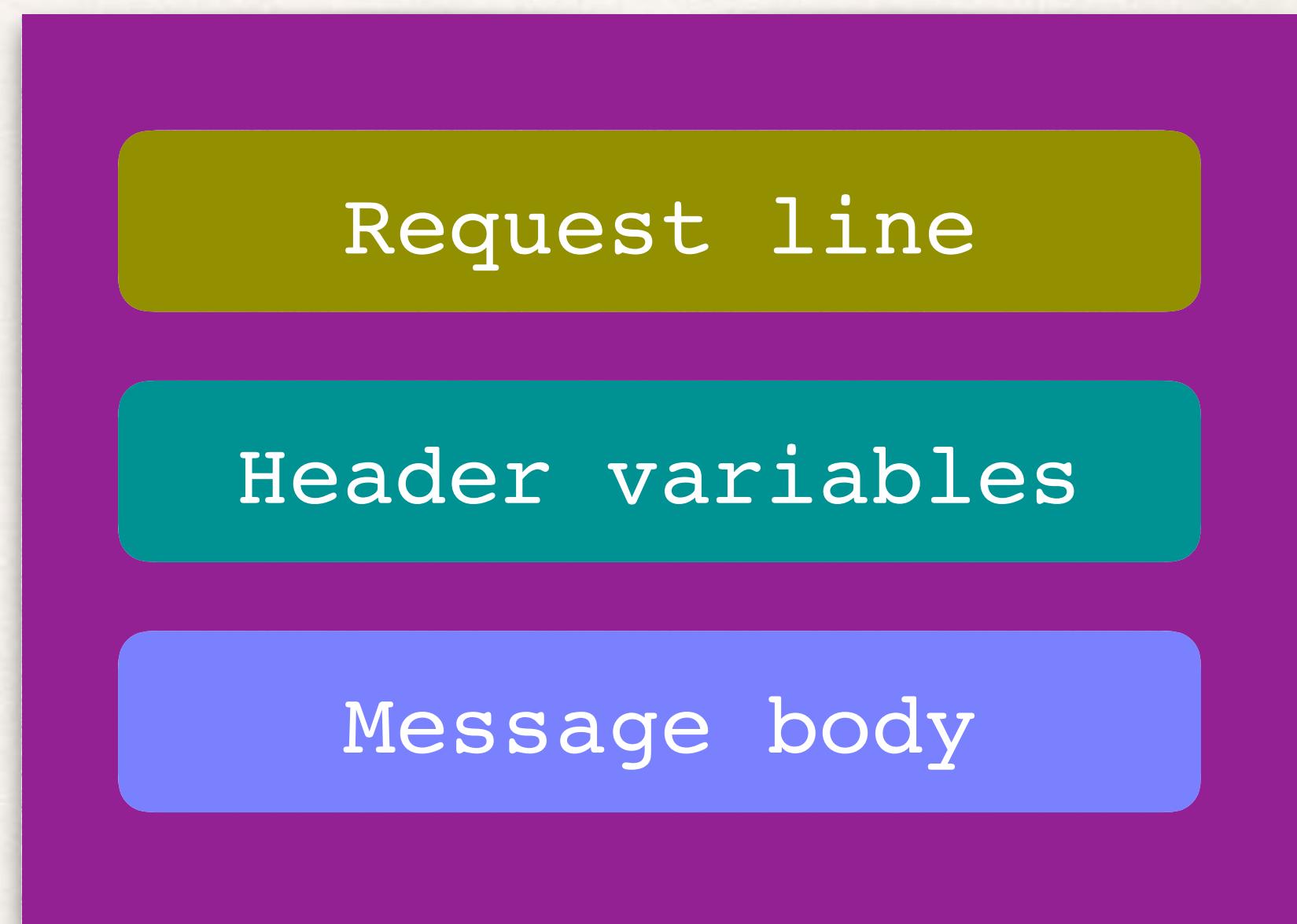
Header variables

Message body

HTTP Request Message

- Request line: the HTTP command

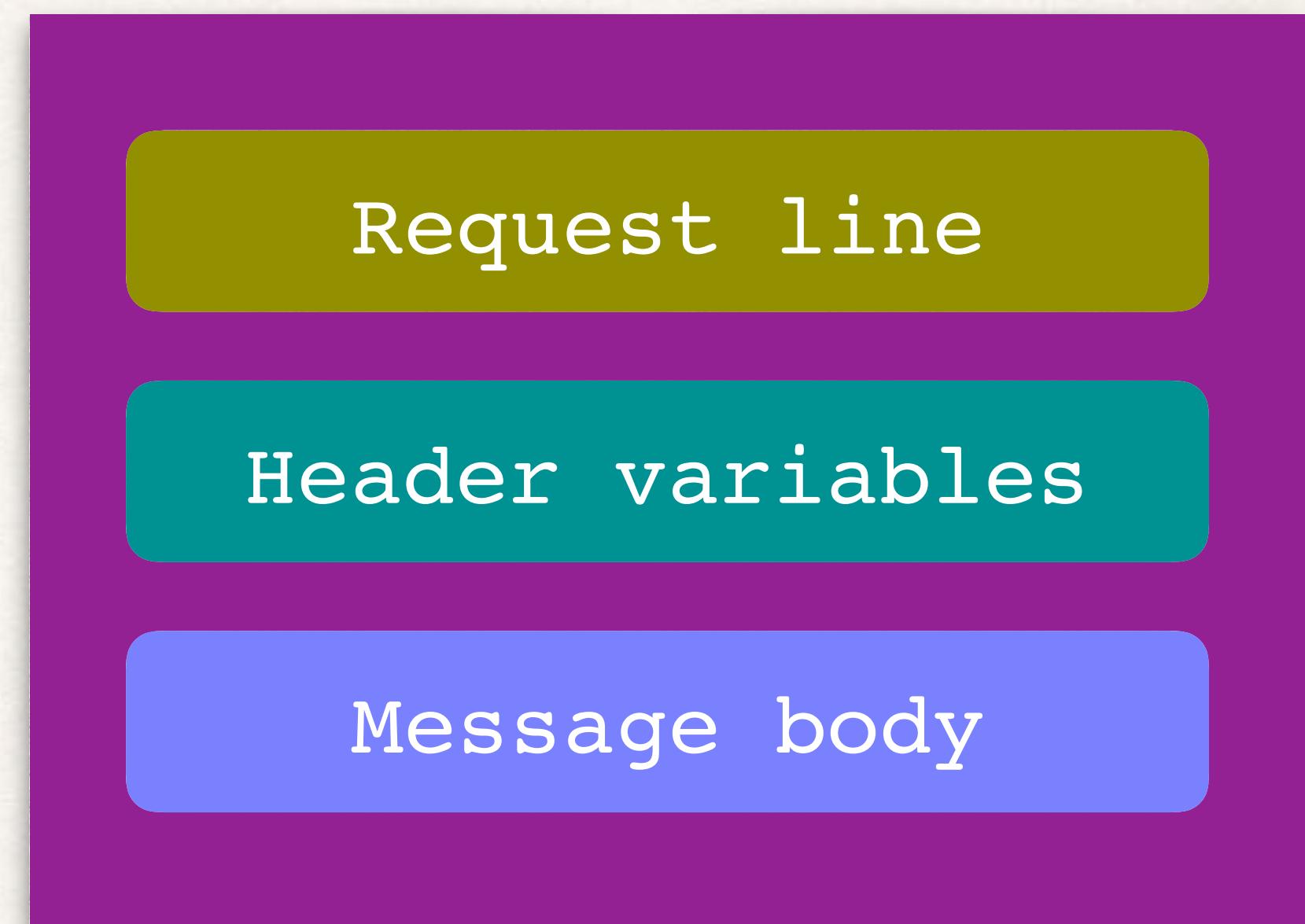
HTTP Request Message



HTTP Request Message

- Request line: the HTTP command
- Header variables: request metadata

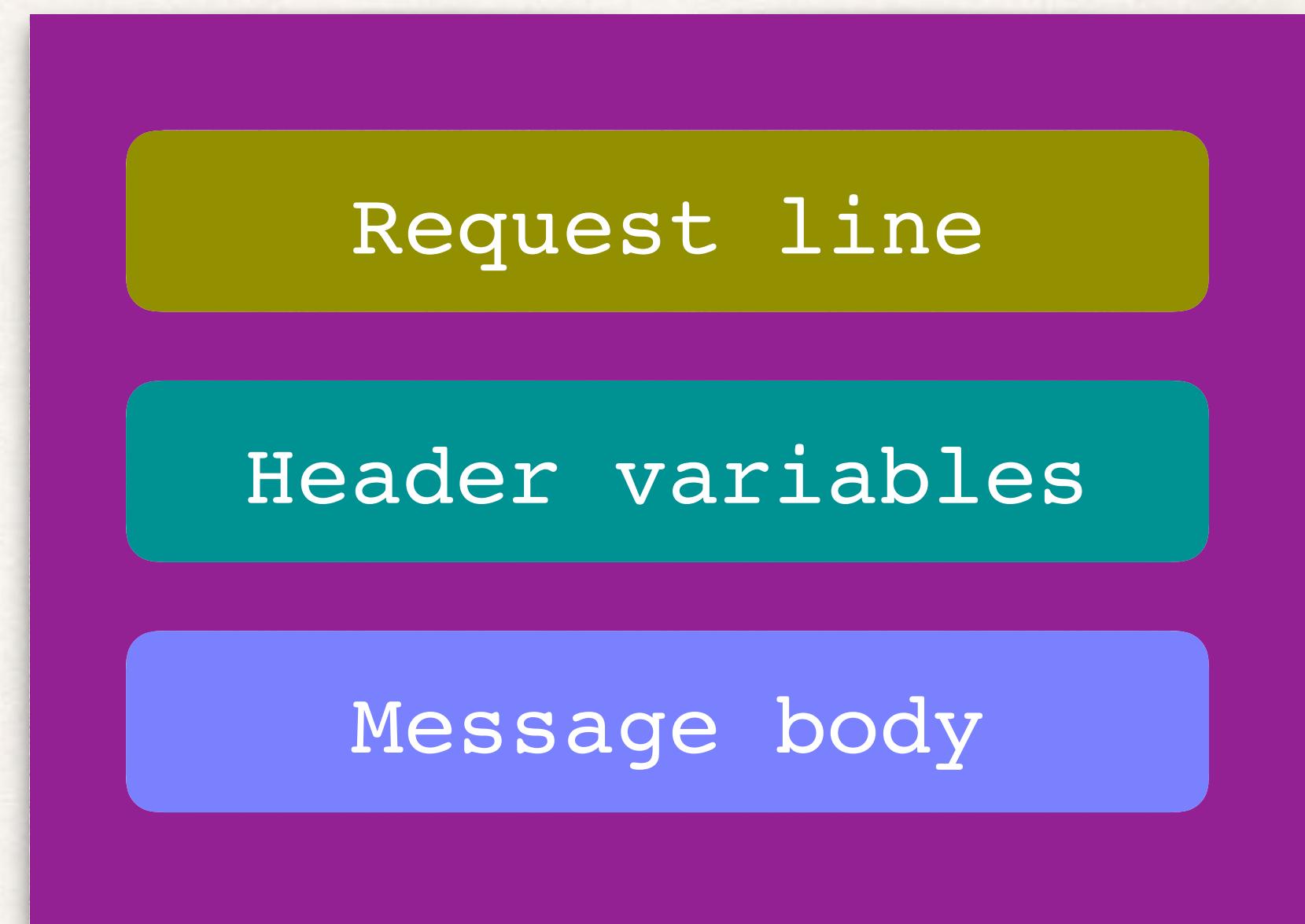
HTTP Request Message



HTTP Request Message

- Request line: the HTTP command
- Header variables: request metadata
- Message body: contents of message

HTTP Request Message



HTTP Response Message

HTTP Response Message

Response line

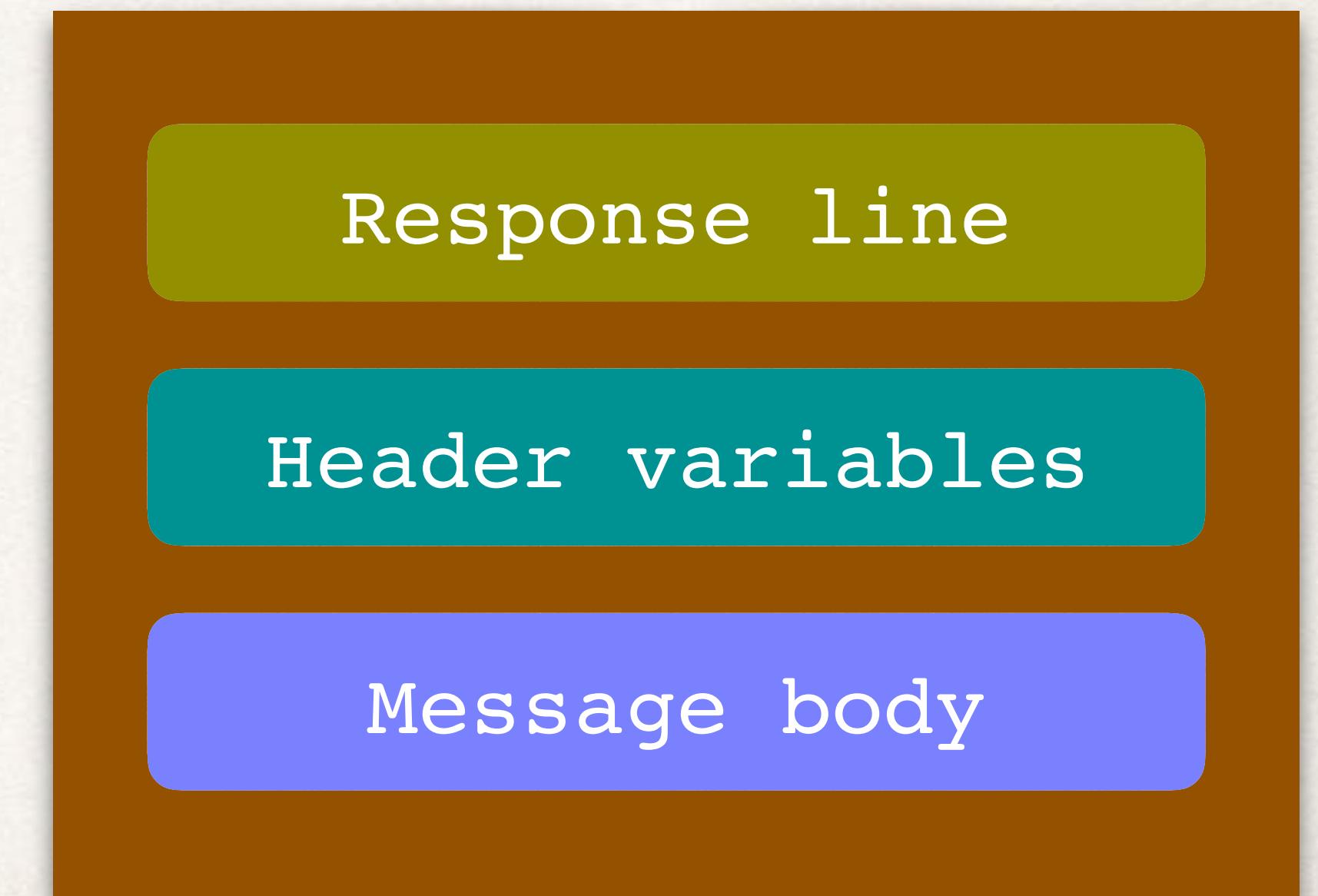
Header variables

Message body

HTTP Response Message

- Response line: server protocol and status code

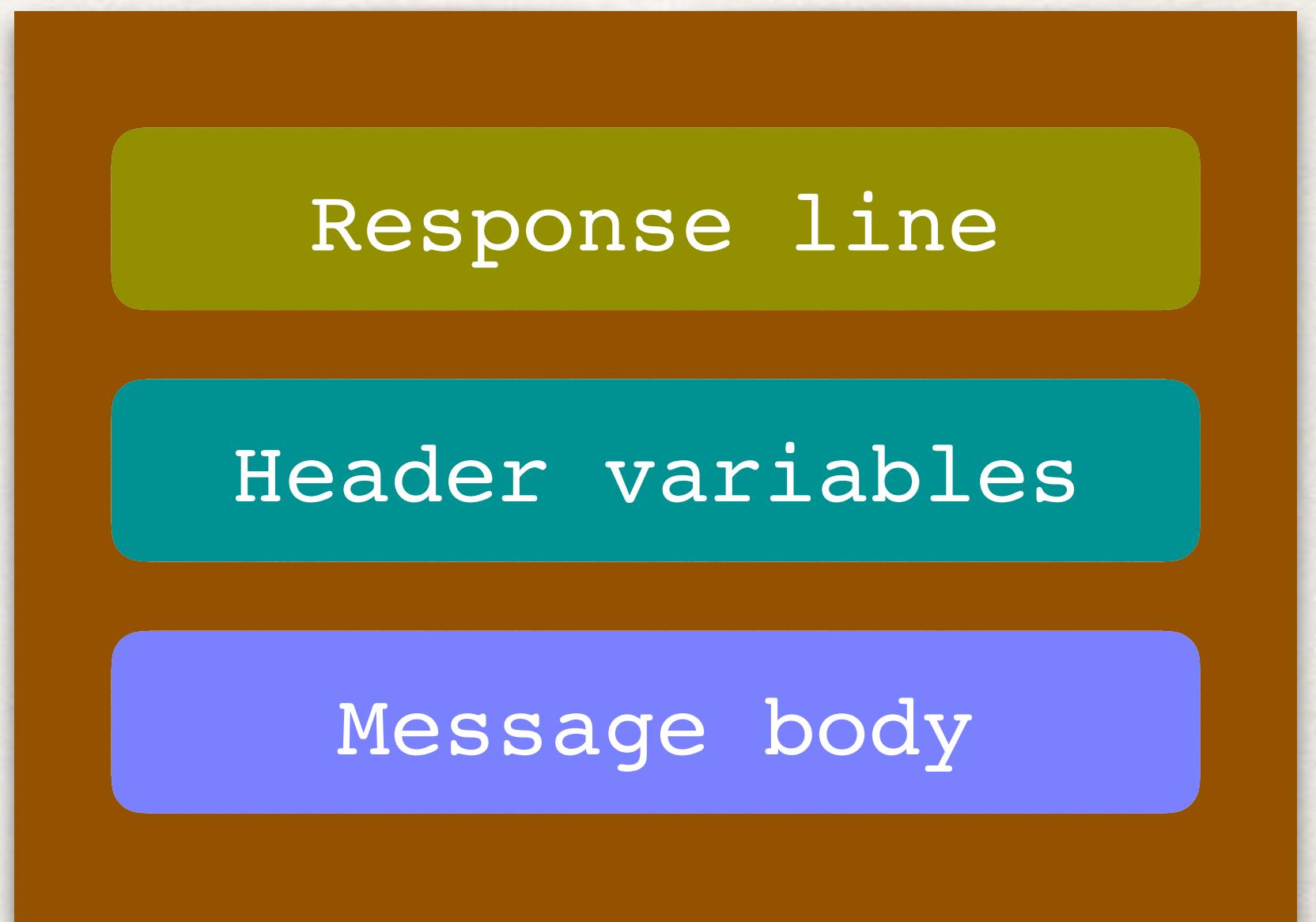
HTTP Response Message



HTTP Response Message

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- Header variables: response metadata

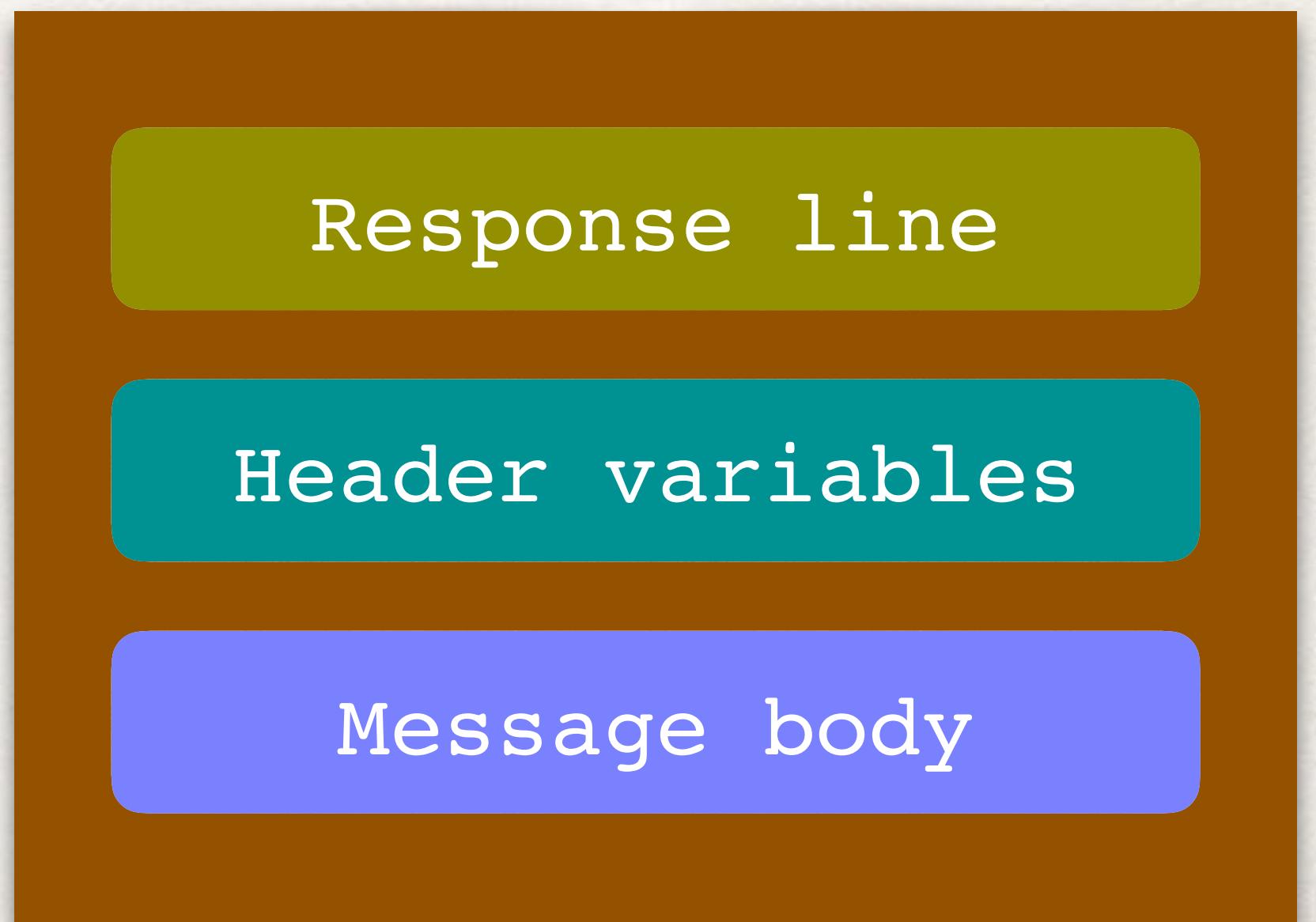
HTTP Response Message



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HTTP Response Message



HTTP Response - Status Codes

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Code Range	Description
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401 Authentication Required
404 File Not Found

HTTP Response - Status Codes

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MIME Content Types

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- Examples
 - text/html, text/plain
 - application/json, application/xml, ...

Client Tool

Client Tool

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Client Tool

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- Send HTTP requests to the REST Web Service / API

Client Tool

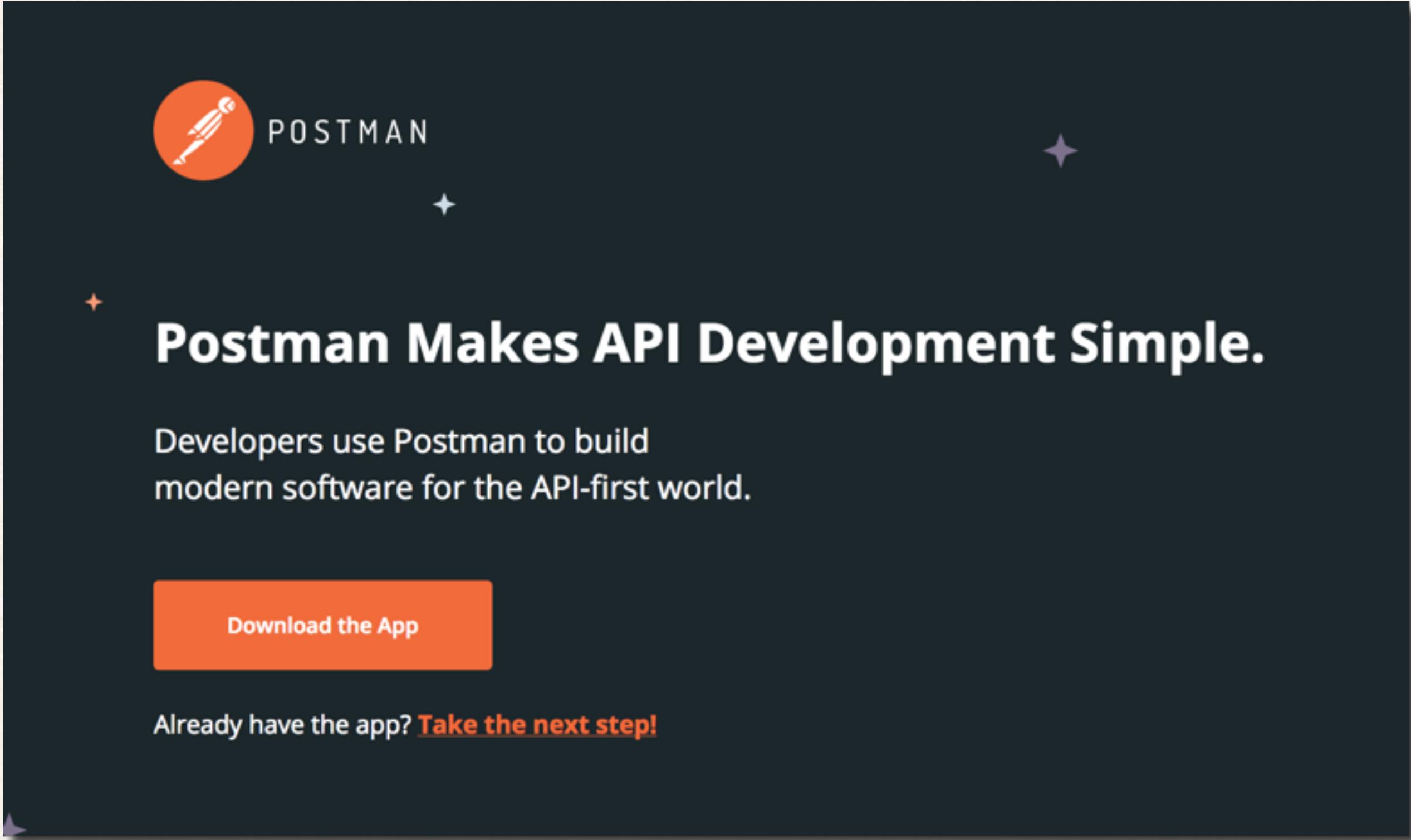
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Client Tool

- We need a **client tool**
- Send HTTP requests to the REST Web Service / API
- Plenty of tools available: curl, Postman, etc ...

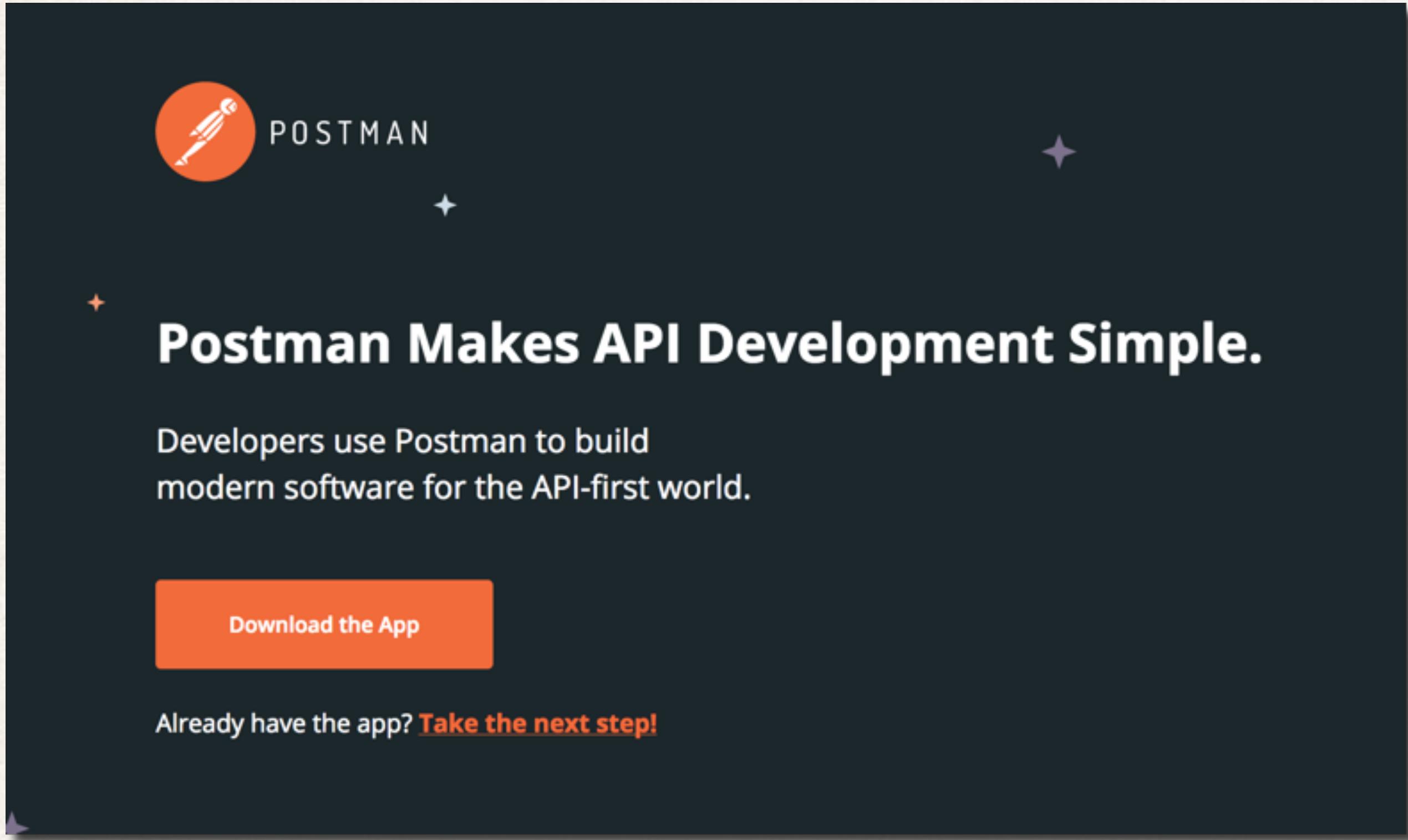
Postman

Postman



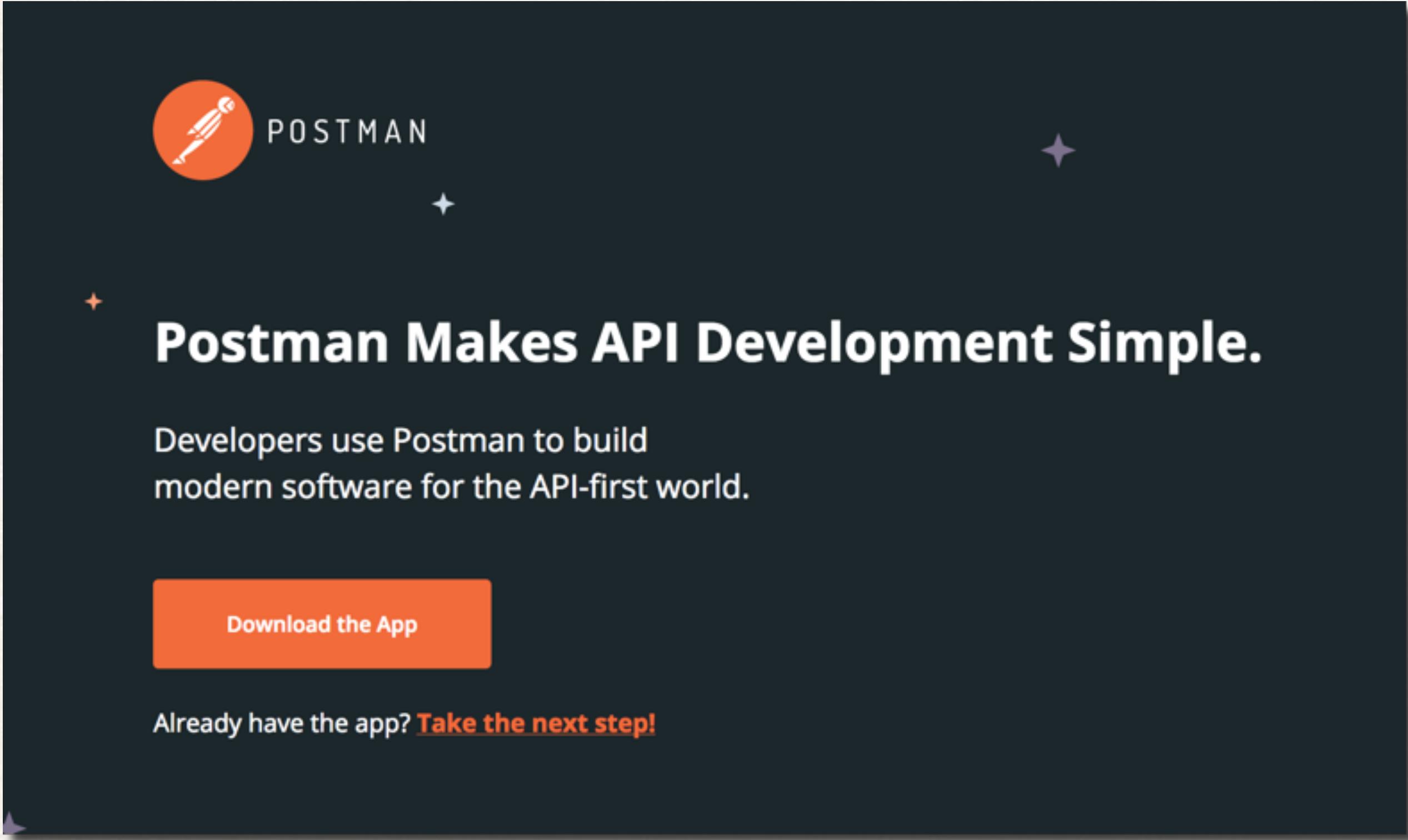
The image shows the official Postman landing page. It features a dark background with the Postman logo (an orange circle containing a stylized pen icon) and the word "POSTMAN" in white capital letters. Below the logo are three small decorative stars of increasing size from left to right. The main headline reads "Postman Makes API Development Simple." in large, bold, white font. A subtext paragraph states, "Developers use Postman to build modern software for the API-first world." At the bottom left is an orange button with the white text "Download the App". At the bottom center, there is a link in orange text that says "Already have the app? [Take the next step!](#)".

Postman



www.getpostman.com

Postman



The screenshot shows the Postman landing page. At the top left is the Postman logo (a stylized orange circle with a white pen icon) and the word "POSTMAN". Below the logo are two small decorative stars. The main headline reads "Postman Makes API Development Simple." in bold white text. A subtext below it says "Developers use Postman to build modern software for the API-first world." At the bottom left is an orange button labeled "Download the App". At the bottom center is the text "Already have the app? [Take the next step!](#)".



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