Purpose

Allow users to search superheros, see the associated information with they, see their power levels and compare power levels across several superheros. Users can create a new superhero and compare them to the superheros in the database. The app will sum up all powers that each superhero has and allow them to be compared to each other.

Filter superheroes by name (possibly publisher)

Get all superhero

Search super heroes

Update superhero

Add superhero

Delete superhero

Add powers to Superhero

Remove Superpowers

Sum up all powers for one suphero

Compare superheors based on overall power level

Endpoint: <http://localhost:5000/hero>

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| **Method** | **Purpose** | **Required query parameters** | **Optional query parameters** |
| GET | Returns all superheroes | None | *Except for “exact\_name”, all {string} variables below would search for full or partial matches*  limit={integer} *return only the first x matches*  name={string}  exact\_name={string}  gender={string}  eye\_color={string}  species={string}  hair\_color={string}  height\_start={integer}  height\_limit={integer}  weight\_start={integer}  weight\_limit={integer}  publisher={string}  skin\_color={string}  alignment={string}  has\_power={power\_id} |
| POST | Creates a hero | *(I.e. required columns)*  name={string} | *(I.e. optional columns)*  gender={string}  eye\_color={string}  species={string}  hair\_color={string}  height={integer}  weight={integer}  publisher={string}  skin\_color={string}  alignment={string} |

Examples:

Return the hero (or heroes) with the exact name "ant-man":

<http://localhost:5000/hero?exact_name=ant-man> GET

Return the first 10 heroes with "spider" in the name, humans characters only, who have a height at least 50 inches and weight between 100 and 500 lb.:

<http://localhost:5000/hero?limit=10&name=spider&species=human&height_start=50&weight_start=100&weight_limit=500> GET

Create a new Martian villain named "Marvin" with some attributes:

<http://localhost:5000/hero?name=Marvin&gender=male&species=martian&height=36&alignment=bad> POST

Endpoint: [http://localhost:5000/hero/{id}](http://localhost:5000/hero/%7Bid%7D)

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| **Method** | **Purpose** | **Required query parameters** | **Optional query parameters** |
| GET | Returns one superhero by id | None | None |
| DELETE | Deletes one superhero by id | None | None |
| PUT | Updates a hero by id | None | name={string}  gender={string}  eye\_color={string}  species={string}  hair\_color={string}  height={integer}  weight={integer}  publisher={string}  skin\_color={string}  alignment={string} |

Examples:

Return the details of the hero with id 512:

<http://localhost:5000/hero/512> GET

Update hero 512 to be hero and change their hair color to green:

<http://localhost:5000/hero/512?alignment=good&hair_color=green> PUT

Delete hero 103:

<http://localhost:5000/hero/103> DELETE

Endpoint: <http://localhost:5000/power>

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| **Method** | **Purpose** | **Required query parameters** | **Optional query parameters** |
| GET | Returns all superpowers | None | None |
| POST | Creates a superpower | *(I.e. required columns)*  name={string} | *(I.e. optional columns)*  power\_type={string}  power\_level={integer 1-10} *If not specified, defaults to 1* |

Endpoint: [http://localhost:5000/power/{id}](http://localhost:5000/power/%7Bid%7D)

(where {id} is a specific power id)

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| **Method** | **Purpose** | **Required query parameters** | **Optional query parameters** |
| GET | Returns one superpower by id | None | None |
| DELETE | Deletes one superpower by id | None | None |
| PUT | Updates a superpower by id |  | name={string}  power\_type={string}  power\_level={integer 1-10} |

Example:

Update superpower 53 to power level 9 and change its power type to "EnergyManipulation"

<http://localhost:5000/power/53&power_level=9&power_type=EnegryManipulation> PUT

Endpoint: [http://localhost:5000/hero/{id}/power](http://localhost:5000/hero/%7Bid%7D/power)

(where {id} is a specific hero id)

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| **Method** | **Purpose** | **Required query parameters** | **Optional query parameters** |
| GET | Returns all superpowers for the specified hero id | None | None |

Example:

Return all the powers for hero id 732

<http://localhost:5000/hero/732/power>

Endpoint: [http://localhost:5000/hero/{hero\_id}/power/{power\_id}](http://localhost:5000/hero/%7Bhero_id%7D/power/%7Bpower_id%7D)

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| **Method** | **Purpose** | **Required query parameters** | **Optional query parameters** |
| POST | Adds the specified power to the specified hero | None | None |
| DELETE | Removes the specified power from the specified hero | None | None |

Examples:

 Add power id 45 to hero 891's list of powers:

<http://localhost:5000/hero/891/power/45> POST

Remove power id 31 from hero 78's list of powers:

<http://localhost:5000/hero/78/power/31> DELETE