

SE319

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REST is used when data has to be shared, but there isn't as much user involvement. It is mostly computer to computer.

An API is used when the computer has to communicate with end users. It allows functionality to be available to the end users program.

```
* Connected to localhost (:::1) port 8081
> GET / HTTP/1.1
> Host: localhost:8081
> User-Agent: curl/8.4.0
> Accept: */*
>
< HTTP/1.1 404 Not Found
< X-Powered-By: Express
< Access-Control-Allow-Origin: *
< Content-Security-Policy: default-src 'none'
< X-Content-Type-Options: nosniff
< Content-Type: text/html; charset=utf-8
< Content-Length: 139
< Date: Wed, 10 Apr 2024 16:27:39 GMT
< Connection: keep-alive
< Keep-Alive: timeout=5
<
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Error</title>
</head>
<body>
<pre>Cannot GET /</pre>
</body>
</html>
* Connection #0 to host localhost left intact

C:\Users\craft>
```

There is nothing that can be connected to at the root level of localhost.

```

C:\Users\craft>curl -v localhost:8081/listRobots
* Trying [::1]:8081...
* Connected to localhost (::1) port 8081
> GET /listRobots HTTP/1.1
> Host: localhost:8081
> User-Agent: curl/8.4.0
> Accept: */*
>
< HTTP/1.1 200 OK
< X-Powered-By: Express
< Access-Control-Allow-Origin: *
< Content-Type: text/html; charset=utf-8
< Content-Length: 563
< ETag: W/"233-K2ZlhNgjAHiBRs0ZF7RndwVj6Is"
< Date: Wed, 10 Apr 2024 16:28:23 GMT
< Connection: keep-alive
< Keep-Alive: timeout=5
<
[
  {
    "id": 1,
    "name": "Robot 1",
    "price": 24.50,
    "description": "This is a description of Robot 1",
    "imageUrl": "https://robohash.org/robot1"
  },
  {
    "id": 2,
    "name": "Robot 2",
    "price": 32.90,
    "description": "This is a description of Robot 2",
    "imageUrl": "https://robohash.org/robot2"
  },
  {
    "id": 3,
    "name": "Robot 3",
    "price": 20.50,
    "description": "This is a description of Robot 3",
    "imageUrl": "https://robohash.org/robot3"
  }
]
* Connection #0 to host localhost left intact

```

It is asking for whatever is at /listRobots in the request section.

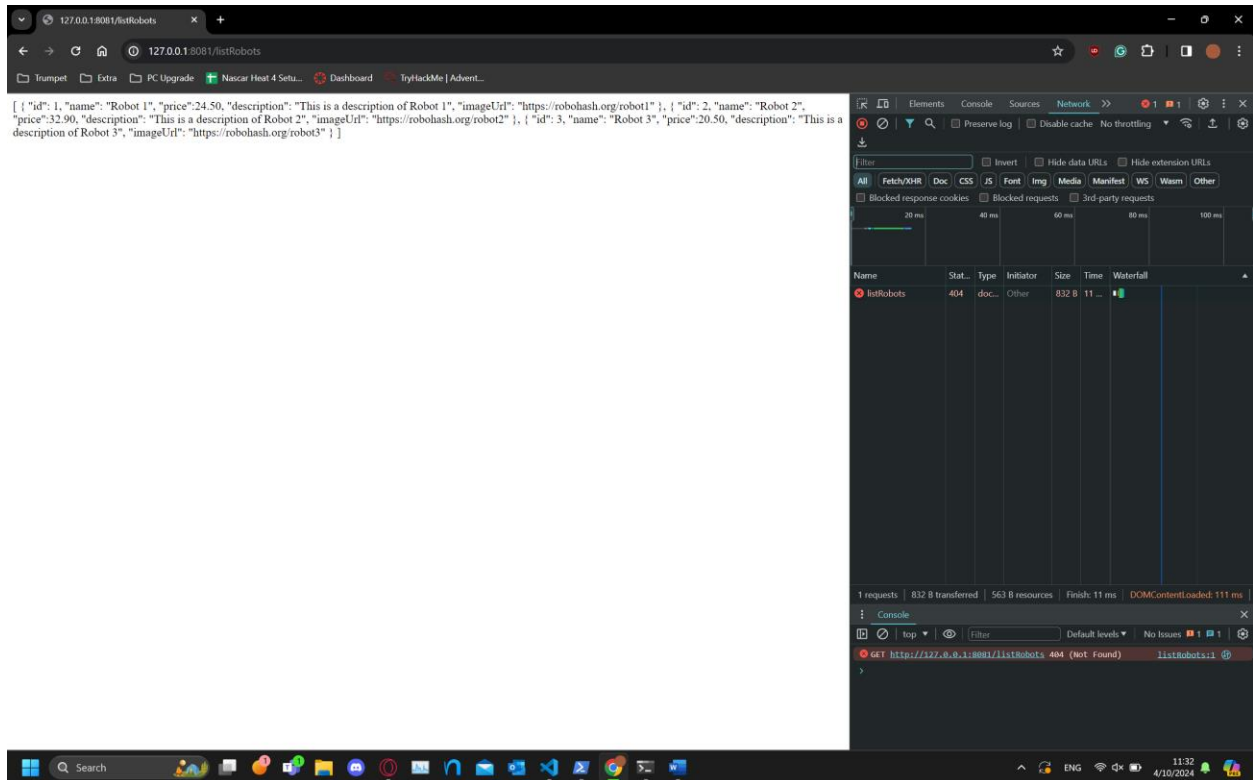
It responds with the JSON file because the app.get reads the file and returns the file.

```

C:\Users\craft>curl -v localhost:8081/listRobots
* Trying [::1]:8081...
* Connected to localhost (::1) port 8081
> GET /listRobots HTTP/1.1
> Host: localhost:8081
> User-Agent: curl/8.4.0
> Accept: */*
>
< HTTP/1.1 404 Not Found
< X-Powered-By: Express
< Access-Control-Allow-Origin: *
< Content-Type: text/html; charset=utf-8
< Content-Length: 563
< ETag: W/"233-K2ZlhNgjAHiBRs0ZF7RndwVj6Is"
< Date: Wed, 10 Apr 2024 16:30:44 GMT
< Connection: keep-alive
< Keep-Alive: timeout=5
<
[
  {
    "id": 1,
    "name": "Robot 1",
    "price": 24.50,
    "description": "This is a description of Robot 1",
    "imageUrl": "https://robohash.org/robot1"
  },
  {
    "id": 2,
    "name": "Robot 2",
    "price": 32.90,
    "description": "This is a description of Robot 2",
    "imageUrl": "https://robohash.org/robot2"
  },
  {
    "id": 3,
    "name": "Robot 3",
    "price": 20.50,
    "description": "This is a description of Robot 3",
    "imageUrl": "https://robohash.org/robot3"
  }
]
* Connection #0 to host localhost left intact

```

Changing `res.status()` changes which status code gets returned by the website.



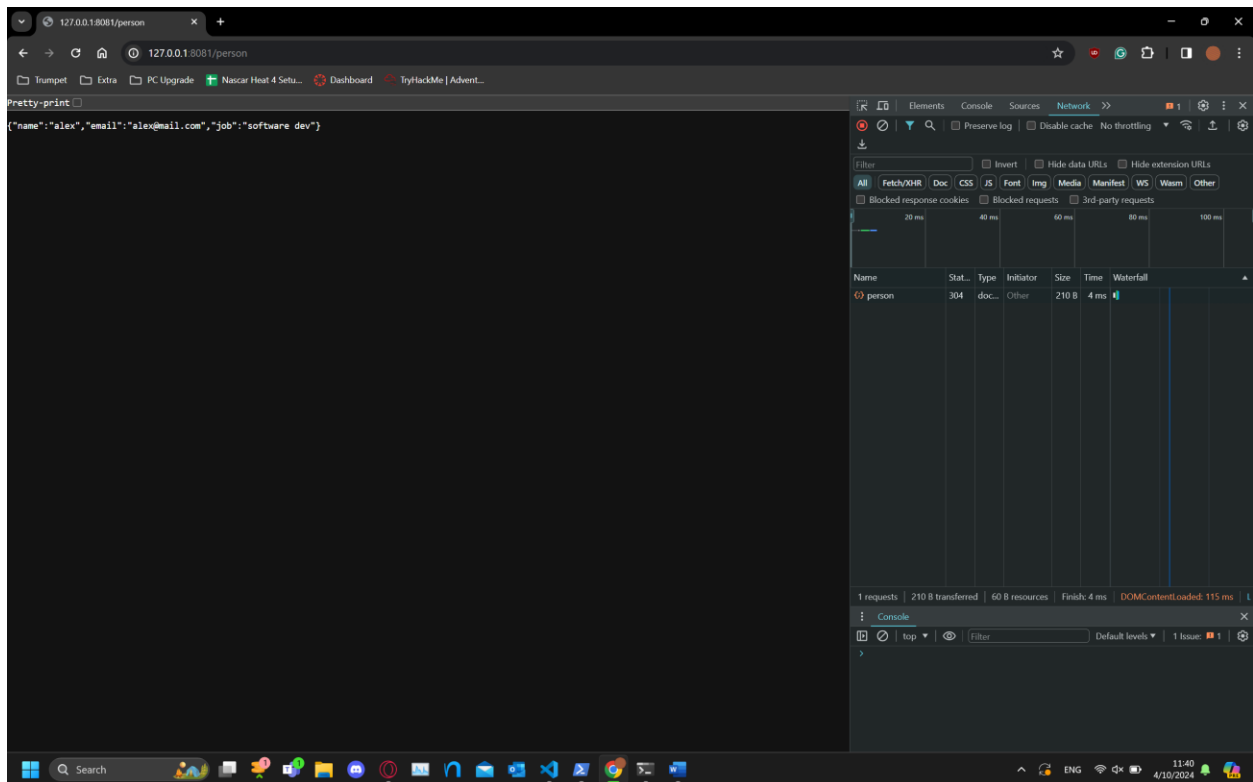
The network tabs shows that it is 404, but it still loads the JSON successfully.

```
C:\Users\craft>curl -v localhost:8081
* Trying [::1]:8081...
* Connected to localhost (::1) port 8081
> GET / HTTP/1.1
> Host: localhost:8081
> User-Agent: curl/8.4.0
> Accept: */*
>
< HTTP/1.1 200 OK
< X-Powered-By: Express
< Access-Control-Allow-Origin: *
< Content-Type: text/html; charset=utf-8
< Content-Length: 88
< ETag: W/"58-jHuj/q7pG6KjiXWjd7JfT6Gi68E"
< Date: Wed, 10 Apr 2024 16:34:08 GMT
< Connection: keep-alive
< Keep-Alive: timeout=5
<
<h1 style='color:Green;background-color:black;border: 0px; '>Hello World From Node </h1>* Connection #0 to host localhost left intact
```



Whenever you go to the website, you get whatever is at “/”, which in this case is the HTML.

```
C:\Users\craft>curl -v localhost:8081/person
* Trying [::1]:8081...
* Connected to localhost (::1) port 8081
> GET /person HTTP/1.1
> Host: localhost:8081
> User-Agent: curl/8.4.0
> Accept: */*
>
< HTTP/1.1 200 OK
< X-Powered-By: Express
< Access-Control-Allow-Origin: *
< Content-Type: application/json; charset=utf-8
< Content-Length: 60
< ETag: W/"3c-BeqiMqtijU9zNSyXx+uf+ZbBKAc"
< Date: Wed, 10 Apr 2024 16:38:12 GMT
< Connection: keep-alive
< Keep-Alive: timeout=5
<
{"name":"alex","email":"alex@mail.com","job":"software dev"}* Connection #0 to host localhost left intact
```



/person returns the object that is created in the top if it. Chrome can recognize that, and then provides an option to make it look better. After loading it once, I get a 304, which is not modified because I haven't changed the object.