

SE 319

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REST applications are a way for client side and server-side applications to securely share information.

APIs are made so that applications can communicate with each other through code. APIs allow for an application to use a certain part/parts of another applications features.

```
Command Prompt
C:\Users\Aden>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/1.1 404 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: Sat, 13 Apr 2024 21:46:01 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
```

There is only a get function for get robot so this will not work. The app can only get listRobot as that is our only get function.

```
C:\Users\Aden>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: 479
< ETag: W/"1df-vqsAHNQwbFEaDQIZS+CkmdpfPvg"
< Date: Sat, 13 Apr 2024 21:46:55 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 uses the get function with “/listRobots” to get the information from the JSON file.

```

C:\Users\Aden>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: 479
< ETag: W/"1df-vqsAHNQwbFEaDQIZS+CkmdpfPvg"
< Date: Sat, 13 Apr 2024 21:48:07 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 means that a server cannot find client's webpage.

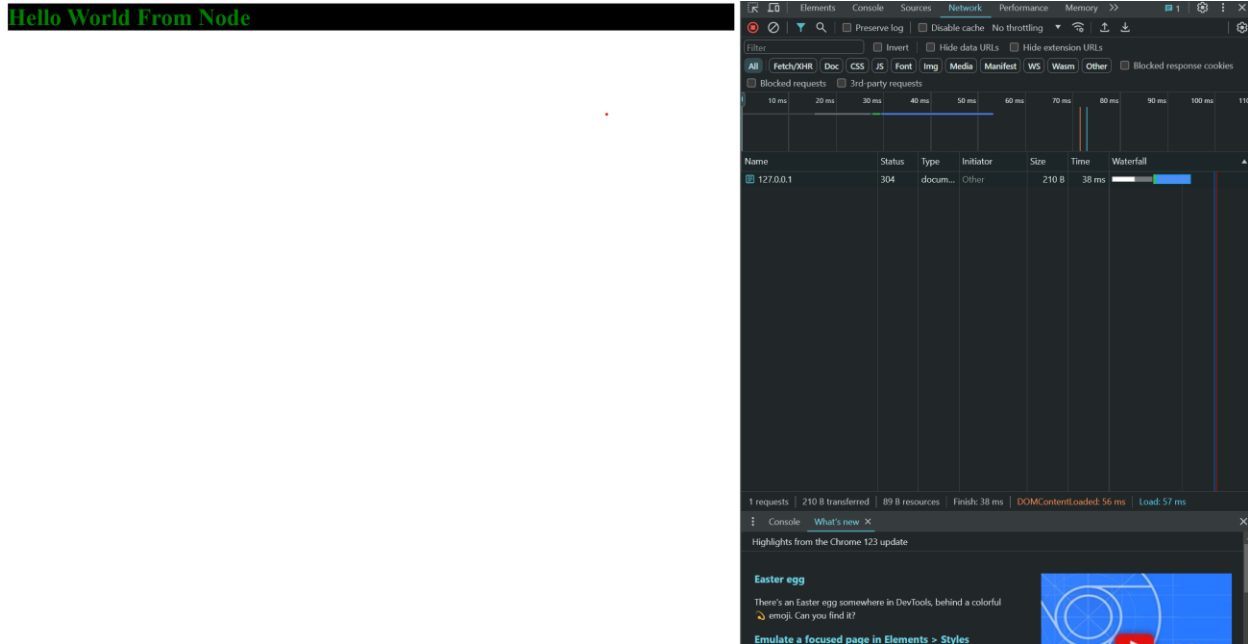
```
[ { "id": 1, "name":
"Robot 1",
"price":24.50,
"description": "This
is a description of
Robot 1",
"imageUrl":
"https://robohash.org/1
"}, { "id": 2, "name":
"Robot 2",
"price":32.90,
"description": "This
is a description of
Robot 2",
"imageUrl":
"https://robohash.org/2
"}, { "id": 3, "name":
"Robot 3",
"price":20.50,
"description": "This
is a description of
Robot 3",
"imageUrl":
"https://robohash.org/3
"} ]
```

The screenshot shows the Chrome DevTools Network tab. A request named 'listRobots' is highlighted in red, indicating an error. The status is 404, the type is 'document', and the initiator is 'Other'. The size is 748 B and the time is 54 ms. The waterfall view shows the request timeline.

Name	Status	Type	Initiator	Size	Time	Waterfall
listRobots	404	document	Other	748 B	54 ms	

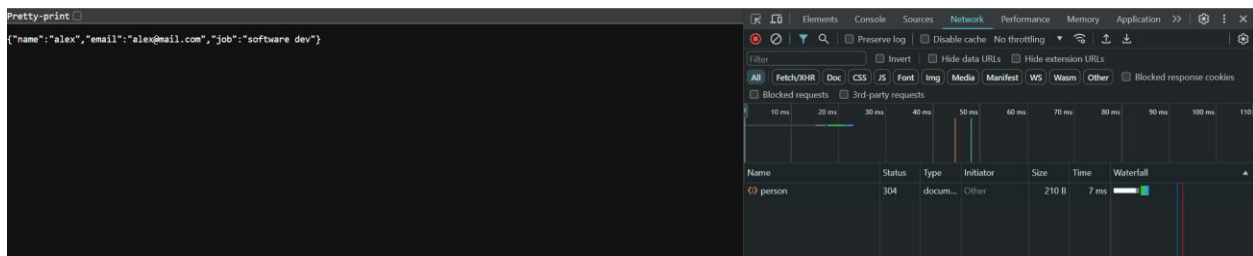
It has an x meaning it is not found and the status code is 404.

```
C:\Users\Aden>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: 89
< ETag: W/"59-zlmjrzErzTr1tPfre5yCW87FFxI"
< Date: Sat, 13 Apr 2024 21:52:47 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 localho
st left intact
```



The response in the terminal is what we are sending in our get function. In the browser we can see what we sent and that the status code is found.

```
C:\Users\Aden>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: Sat, 13 Apr 2024 21:55:10 GMT
< Connection: keep-alive
< Keep-Alive: timeout=5
<
{"name":"alex","email":"alex@mail.com","job":"software dev"}* Connection #0 to host localhost left intact
```



We are sending a variable to the server. The server then takes it in as a JSON file.