

# Assignment 3

Due Date: February 28, 2022 at 7:30 PM

## Overview

This assignment will be worth **7%** of your total grade or 70 points. You cannot use the HTTP module, only Express. If the HTTP module is used instead of Express you will receive a 0. For the extra credit, feel free to use Axios, Fetch, or another library/package to make requests.

## Specifications

Brian Armstrong from Coinbase needs your help (not really, but just pretend) in building a simple API to get details about the prices of his two favorite cryptocurrencies: Bitcoin and Ethereum.

For this assignment, you will write an API Server that listens on the **port provided by the first argument to your program** to provide the amount of Bitcoin or Ethereum that can be purchased with a dollar amount passed in by the user. For this assignment assume BTC is worth \$25000 and ETH is \$900 USD

## JSON API Server

Write a server called api.js that serves JSON data when it receives a GET request to the path '/api/btc'. Expect the request to contain a query string with a key 'usd' which is the price in US dollars to convert.

For example: /api/btc?usd=25000

The JSON response should contain only the 'amount' property.

For example: {"amount": 1}

Add second endpoint for the path '/api/eth' which accepts the same query string but return the amount of Ethereum that can be purchased with.

For example: /api/eth?usd=900

For example: {"amount": 1}

Please return a 200 status code if the request is correct and a 404 if the request is not correct (invalid endpoint, arguments, etc.)

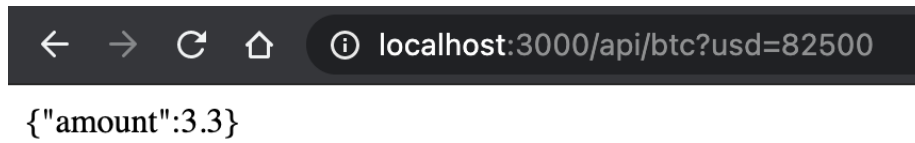


Figure 1: Bitcoin endpoint

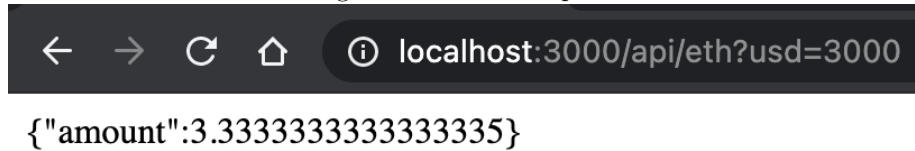


Figure 2: Ethereum endpoint

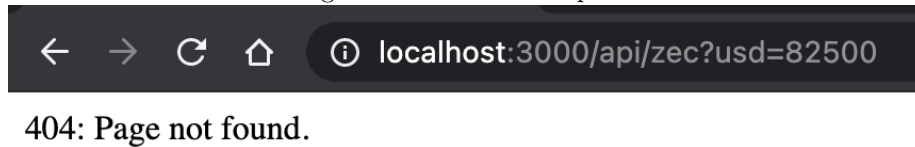


Figure 3: Incorrect endpoint

### Extra Credit (5 points)

Use the API provided here to get the real, current BTC prices in USD (use the 15m value). So instead of hardcoding a value of 25000 as the price of BTC (which is incorrect), you should be able to return the real amount of BTC a user can purchase. This is an all-or-nothing extra credit, so partial credit will not be awarded for this. Please explicitly state you are attempting the extra credit in the project submission on Bb.

## Submission

Please submit the following on Blackboard:

- api.js