

1. I had time to complete the problem, although I tried to constrain myself to four hours, as that was the amount of time the problem description would likely take. To the things I would add if I had more time: unit testing, swagger docs, some sort of API data contract testing (like PACT), some sort of cleaner method of deployment (likely docker), update the logging to log to a database, update the URLs for bitcoin and fixer to be part of a configuration file, and clean up some of the Json serialization configuration to more evenly apply it across all of the objects that I'm serializing. I would also add middleware to better handle exceptions and validate user input. Part of what I did with this project is to try and experiment with using laravel to create it, but it seemed like seemed like too heavy duty a framework for what this project called for. Something I would like to do if I had more time would be to research a more lightweight PHP solution (possibly slim or lumen) and try implementing that instead.
2. My current favorite language is C#, this is largely because it's the one I have the most experience with, but also because it has a large, useful series of standard libraries, convenient language features such as LINQ, and one of the best IDE's I've ever used. That said, I'm always looking to work with new technologies and trying to expand my skills by learning new languages and frameworks.
3. As far as frameworks go, I enjoy using .NET, as I find C# to be a pretty good multi purpose language and its C style syntax is something that I'm very comfortable using. Here, I specifically used ASP.NET which is a piece of .NET that's a framework for making API's. I also wrote this in .NETCore so that the code would be more portable. I've also worked with expanding a similar web app to this one using Slim framework with Doctrine as an ORM. I found this to be a very convenient framework for writing a smaller web app like a simple API. In working on this project, I experimented with Laravel and Lumen. Laravel seemed like it would be better for a larger scale web app, while lumen seemed very similar to slim in that it would a good framework for use with a smaller web app like this API. That said, I ultimately settled on .NETCore due to my familiarity with C# and a feeling like I would be able to write a better app using it. Ultimately, I likely would have used Lumen or Slim if I had more time, as developing with each felt really fast and easy to debug.

```
{  
    "Name" : "David Hummer",  
    "Occupation" : "Software Developer",  
    "Education" : ["University of Texas, BS in Computer Science",  
                  "University of Texas, BS in Mathematics"],  
    "Hobbies" :["Reading",  
               "Video games",  
               "DnD",  
               "Baking",  
               "Hiking",  
               "Magic the Gathering"],
```

```
    "Favorite book" : "The Dark Tower",  
    "Favorite Movie" : "Star Wars",  
    "Favorite Video Game" : "Bioshock",  
    "Pets" : "None, but likes dogs",  
    "Personal Motivation" : "Learning for the sake of learning"  
}
```

NOTE: This App is .NETCore, in order to run, the .NETCore framework will need to be downloaded and you can start the service by running "dotnet run" against the .csproj file, and will start on <https://localhost:5001/api/bitcoin> with parameters being passed in the same way they would be for the fixer API.