**Assignment 2 Documentation:**

This the documentation of my assignment two where I created a rest API. I will now tell you my opinion of my API as well as telling you the strengths and weaknesses of my API.

**Strengths and Weaknesses:**

**Strengths:**

1. **Organised:** After coding this API I find that my API is very organised. Of course API’s are known for being organised but I find that my API is very easy to understand and to follow. I tried my best to make the API informative but easy to read and follow. I was also able to organise very complicated applications when making this API. For example I was able to create a function in the Rest API that creates a pdf and shows you the pdf. Inside the pdf there is a table that has the information of the beer that we picked.
2. **High Load:** I made my API able to perform a lot of functions at once and this high load can be managed with help of the HTTP proxy server and cache. Again this is one of the advantages that you get from making a rest API.
3. **Different Queries:** Another advantage of my API is that you can have a lot of different queries. From the 4 available queries I used all 4. I used a Put function to edit a specific Beer. I used a Post Method to Create a Beer variable. I used a Delete method to delete a specific beer variable and I used a Get method to do all the other necessary functions in my Rest API. These methods or Queries are used in a lot of different API and I managed to use them properly in order for me to get all the functions working. This would not be able to be done if I was doing a CRUD application.

**Weaknesses:**

1. **State:** One of the weaknesses of a rest API is the fact you lose the ability to maintain state in a Rest API. This means I am not able to delete a function and it too affect the database.
2. **Security:** There is a lack in security in my API due to the fact that I don’t have the ability to impose security because I am not able to use a protocol like SOAP. API’S are known for having a lack of security and I wasn’t able to add any form of security to my API so the biggest weakness of my API is the lack of security.
3. **Error Handling:** The last weakness in my API is the lack of error handling. I was able to add a some error handling but I would still say it needs a bit more error handling. This is a big weakness because it could lead to hacking and that is something I don’t want to happen.

**Benchmarking and Enhancements:**

**Benefits of creating an API:** The biggest benefit to the creation of an API is that an API provides a great deal of flexibility. Data is not tied to methods so a Rest API can handle multiple types of calls, return different data formats and even change structurally. This shows that an API allows developers to build an API that meets their needs and their customers needs. A rest API also relies on the HTTP standard which means it is format-agonistic which means that you can use XML,JSON and HTML. This makes an API fast and lightweight.

**Enhancements:** I have a few enhancements, but I think the most important enhancement I would make on my API would be adding more Error handling into my code. The fact I don’t have that much error handling makes my API not very usable so the addition of more error handling would stop people from hacking my API and it would improve or enhance my API.

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