

1.1 Explain **in detail** (at least one paragraph of at least 5 sentences) what is meant by a Universal Interface in a REST API. (7 points)

A Universal Interface in a REST API is one of the set of six constraints which dictates the way your API should work and is also called a uniform interface. It consists of the client communicating with the server and being able to gather all of the information needed in a self explanatory fashion. The client will make calls to the server and the server will return only the information that was requested. If the person requested a resource that does not exist, the error message should be clear and point them in the correct direction. In addition, there are certain methods that a user can use such as 'get', 'post', 'put', 'delete', etc. The client must specify the correct method type in their call and it is the server's responsibility to point the client to which methods are acceptable. As a result, if the client created a new element the server should also return a way to access it and communicate that clearly. Finally, the overarching API should be discoverable. This means that the user can understand what calls to make without having to look at much documentation.

1.2 Explain **in detail** (at least one paragraph of at least 5 sentences) the three primary roles of Scrum and what each's responsibilities are. Which role(s) are you, and why? Which role(s) am I (and the TAs) and why? (8 points)

The three primary roles of Scrum are scrum master, product owner, and developers. The product owner is responsible for working with the stakeholders to figure out the direction of the project and set up a product backlog with values assigned to each task indicating the importance. The scrum master works on managing and making sure that the entire scrum process is being followed. They help setup sprint tasks and ensure that they are properly being worked on and adjusting the sprint as needed. If someone is blocked by an impediment, then they might work with them to find a task which will clear that. Finally, the developers are people who are actually responsible for building this product. They are the ones assigned the tasks and will be fulfilling them through the sprint. At the beginning of a sprint they work together to divide the tasks to figure out their optimal workload and complete it during the two week cycle. At the end they have a retrospect to analyze what went right and what went wrong.

As a student, myself and my entire group are part of the developers since our main goal is to actually build and implement our project. As the professor and TA, your role is to be the scrum master, working to ensure that our product backlog is correct and meeting for retrospect. In addition, as we build the product backlog and have the vision we are the product owners, but the TA and professor contribute in setting the overall requirements (1 API, must have this feature, etc).

1.3 What command would you use to change the ownership of a file or directory on a Unix machine (such as your Azure VM)? Show me a complete command invocation to make a directory named `/var/www/html` be owned by a user named `callab5` and a group also named `callab5`. (5 points)

The `chown` command is used to change the owner of a file or directory on a Unix machine. To use it you first type `chown`, followed by `[new user name]:[new group name]` and finally `[filename or directory]`. This will result in a command of:

`sudo chown callab5:callab5 /var/www/html`

Extra Credit (+5 points)

1. What student guide to RPI was written in the mid 1980s and archived on GitHub?
(Must provide name of guide and GitHub URL to get credit!)

Not the Rensselaer Handbook

<https://github.com/DrBarnack/ntrh>