CS554 - SPRING 2022 - TERM PROJECT

STUDENT(s) NAME: ***Due Date: Tuesday, April 14, 2022***

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PROJECT GOAL

The objective of this assignment is to create a working SOA application over a cloud. Mastery of this project will give you skills in Service Oriented Architecture, creating restful-asynchronous services, and distributed cloud computing.

OVERVIEW

For this project, you are not limited to the CS Cloud. You may use the CS Cloud, a private cloud, online cloud, or just a hypervisor on a single host (pseudo-cloud). On the cloud, you will instantiate at least three VMs. One VM to run your SOA application and the other two to host the 2-4 services that the SOA application will use.

For the SOA application, I highly suggest a small, realistic application, to add realism and reinforce the SOA concepts. It will also force you to create or find realistic services. However, the choice is yours. You do not need my approval for the application topic, however, if it is not UAH appropriate no points will be rewarded.

PROJECT REQUIREMENTS

- The SOA application must be able to run on a cloud.
- Services must be restful (non-blocking).
- The SOA application must contain at least two services.
- At least one of the services must be created by team.
- The SOA application must be presentable from a CS classroom or lab. *(This may limit your application types to choose from.)*
- Project deliverables must be submitted via Canvas prior to due date.

PROJECT DELIVERABLES

1. A complete set of documentation including:
    a. Source code for SOA application, scripts, and any services you wrote for this project.
    b. List of all external software used, description, and download URLs.
    c. List of all external services used, description, and URLs.
    d. Illustrations showing communication behavior of the SOA application to and from services.
2. For each student, a brief report on lessons learned and your experiences during the project. I am particularly interested in the difficulties experienced, and the lengths you had to go to overcome them. Also, be honest and let me know if the opposite is true and you found this project too simplistic.
3. If completed in a group, provide a breakdown of how the work was divided between the members of the group.

*The project must be demonstrated to the class with a presentation describing the project, including illustrations of 1.c and summarized lessons learned. Demonstration date must be scheduled with the professor before the last day of class.