

CS361: Assignment 6: Microservices Case Study & Pipe Spike

# Overview

Learn how microservices work in the real world by (1) researching a software product that uses the microservices architecture and (2) implementing a microservices communication pipe that is NOT text files.

# Instructions

Complete each item below by replacing the highlighted text (**Usability note**: double-click the text to select it).

1. **PART 1: Microservices Case Study**

Find **well-known software** that uses the **microservices** architecture (e.g., Netflix, Amazon, etc.). **Research** the software and answer the following **questions**.

* 1. What is the **name of the software** and **what is it for**?

| *SoftwareNameAndDescription* |
| --- |

* 1. **Why** was the microservices architecture used for this software?

| *Explanation* |
| --- |

* 1. How does **communication** happen between the software's microservices?

| *Explanation* |
| --- |

* 1. Name and **describe a few microservices** that are part of the software. (3+ microservices)

| *NamesAndDescriptions* |
| --- |

1. **PART 2: Pipe Spike**

Spike one microservices communication approach that is NOT communication via text file (since you already tried that). Example approach:

* RabbitMQ
* Subprocess calls
* Sockets
* PyZMQ Messaging
* RPyC: Remote Python Call library
* HTTP Request
* os library: system calls
* ZeroMQ
* FTP

You are NOT limited to the list above.

**Requirements for the approaches:**

* Can be used to communicate between processes
* Can be used to request and provide data
* Not text files, CSV files, or other similar approaches involving file reads/writes

**Complete the following:**

* 1. **Which approach** did you spike?

| *NameOfMicroservicesCommunicationPipe* |
| --- |

* 1. Get the approach working. Upload **screenshots** that show the approach being used to **send and receive this message: ``A message from CS361''**

| *ScreenshotOfSendingMessage* |
| --- |

| *ScreenshotOfReceivingMessage* |
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# Submission

**PDF or Word** format via Canvas.

**You must follow instructions at Modules > “Attach a Document to "Text Entry" Field”.**

# Grading

You are responsible for satisfying all criteria listed in the Canvas rubric for this assignment. You will be able to revise this assignment if you miss points.

# Questions?

Please ask via Ed so that others can benefit from the answers.