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Source: https://github.com/facevoid/ds_project_1

How to run this project:

To Run this project follow the guidelines in readme. Run server in a terminal and run client in another terminal and follow the directions appeared in the client's terminal.

Assignment 1 (Single Thread):

- Implemented single threaded server and client for performing the required operations

Assingment2 (Multi Thread):

- Make the single threaded server multithreaded to handle multiple clients concurrently

Assingment3 (Async):

- Implemented rpc client and rpc server.
- Client will have a thread running for recieving push messege from server with the async results
- Server will have a thread running for sending result to it's clients when it's ready (sleep implemented for making computation time longer)

Assingment4(Deferred Async):

- Server will have list of results for clients. And will return the results as per client's query

What I've learned:
- Multithreaded programming
- Server socket in python
- Rpc calls

Samples from

```
5
No results found in the queue


—————————————————Starts again——————————
Please select one from the below operations
{1: 'calculate_pi', 2: 'add', 3: 'sort', 4: 'matrix_multiply', 5: 'Get Queued Results from serve
r'}


1
ACK recieved: ack


—————————————————Starts again——————————
Please select one from the below operations
{1: 'calculate_pi', 2: 'add', 3: 'sort', 4: 'matrix_multiply', 5: 'Get Queued Results from serve
r'}


5


1 Push notification recieved
————————————————————
{'1': '{"time": "21:20:37", "func": "cl_pi", "res": "3.1415916535897743"}'}


—————————————————Starts again——————————
Please select one from the below operations
{1: 'calculate_pi', 2: 'add', 3: 'sort', 4: 'matrix_multiply', 5: 'Get Queued Results from serve
r'}
```