**Real-Time System Usage Monitoring Application**

This application monitors and visualizes real-time system usage data including CPU, memory, and disk usage.

It consists of two components :

1. Python script for fetching and plotting the data,
2. C# server for providing the system usage data.

**Python Script (fetch\_plot.py):**

In This script uses the requests library for making HTTP requests and matplotlib for plotting.

**Functions:**

* **fetch\_data():** It send a GET request to the server endpoint /system-info to fetch system usage data.
* **update\_plot(frame):** It updates the plot with the received data.

**Plotting:**

* The script initialises lists to store x-axis values and usage percentages for CPU, memory, and disk.
* It continuously fetches data from the server and updates the plot every second using Matplotlib's FuncAnimation.

**C# Server (server.cs):**

**Dependencies:**

The server is built using ASP.NET Core and utilizes SignalR for real-time communication.

**Endpoints:**

* /system-info: Provides random CPU, memory, and disk usage data when requested.
* /system-info-hub: SignalR hub for broadcasting system info to connected clients.
* SystemInfoCollector: Generates random system usage data and broadcasts it to connected clients via SignalR hub.
* Startup Configuration:Configures SignalR, controllers, and services.

**Usage:**

Start the C# server using the dotnet run command.

Run the Python script to initiate real-time monitoring and visualization.

The Python script fetches data from the server every second and updates the plot accordingly.The C# server continuously generates random system usage data and broadcasts it to connected clients.Users can visualize CPU, memory, and disk usage in real-time through the Matplotlib plot.