# Setting Up a Local HTTP Server for Flutter Widget Configuration

This tutorial will guide you through setting up a local HTTP server to serve a JSON file containing Flutter widget configuration. You can then access this server from different devices on the same network to fetch and render the widget in a Flutter app.

## Step 1: Find the IP Address of Your Local Machine

1. On Windows, open a Command Prompt and type `ipconfig`. Look for the IPv4 Address under your active network connection.  
2. On macOS or Linux, open a terminal and type `ifconfig`. Look for the IP address under your active network interface (usually something like `192.168.x.x`).

## Step 2: Run the Python HTTP Server Using the Local IP Address

1. Open a terminal or command prompt.  
2. Navigate to the directory where your `widget.json` file is located.  
3. Run the following command, replacing `YOUR\_LOCAL\_IP` with the actual IP address of your machine:  
 ```sh  
 python -m http.server --bind YOUR\_LOCAL\_IP 8000  
 ```  
 For example, if your local IP address is `192.168.1.100`, you would run:  
 ```sh  
 python -m http.server --bind 192.168.1.100 8000  
 ```

## Step 3: Access the Server from Another Device

1. Make sure the other device is connected to the same local network (e.g., Wi-Fi).  
2. Open a web browser or use any HTTP client on the other device.  
3. Access the server using the local IP address and port number. For example:  
 ```  
 http://192.168.1.100:8000/widget.json  
 ```

## Step 4: Modify the Flutter App to Use the Local IP Address

Update the Flutter app to fetch the widget configuration from the server using the local IP address:  
```dart  
Future<Widget> fetchAndBuildWidget() async {  
 // Replace with your local IP address  
 final response = await http.get(Uri.parse('http://192.168.1.100:8000/widget.json'));  
  
 if (response.statusCode == 200) {  
 final data = json.decode(response.body);  
 return buildWidget(data);  
 } else {  
 throw Exception('Failed to load widget configuration');  
 }  
}  
```