

Project Run Guide (Step-by-Step)

This document explains how to run the complete project step by step, including:

- Running the API server
- Running Cloudflared
- Updating server URLs in all agents and Flutter
- Running Windows, Linux, and Android agents
- Running the Flutter application

Follow the steps in the given order to avoid errors.

Prerequisites

Before starting, make sure you have:

- Python installed
- Flutter SDK installed and configured
- Required Python libraries installed
- USB cable to connect mobile phone with laptop
- USB debugging enabled on mobile phone

Step 1: Run the API Server

First, open Terminal / Command Prompt and navigate to the API server directory.

Run the API server using the following command:

```
uvicorn api_server:app --reload --host 0.0.0.0 --port 8000
```

Important: Keep this terminal open. Do not close it.

Step 2: Run Cloudflared

Open a new terminal window.

Run Cloudflared using the command:

```
cloudflared tunnel --url http://localhost:8000
```

Result: - Cloudflared will generate a public URL (<https://abcd-1234.trycloudflare.com>)

Important: Copy this link carefully. This link will be used in all agents and Flutter. Internet will be Required.

Step 3: Update Server URL in All Files

Now update the Cloudflared URL in the following files:

3.1 Windows Agent

Open windowsagent.py and update the server variable:

```
SERVER_URL = "https://abcd-1234.trycloudflare.com"
```

3.2 Linux Agent

Open linuxagent.py and update the server variable:

```
SERVER_URL = "https://abcd-1234.trycloudflare.com"
```

3.3 Android Agent

Open androidagent.py and update the server variable:

```
SERVER_URL = "https://abcd-1234.trycloudflare.com"
```

3.4 Flutter API File

Open api.dart and update the base URL:

```
String baseUrl = "https://abcd-1234.trycloudflare.com"
```

Step 4: Run All Three Agents

Open three separate terminals (or tabs).

4.1 Run Windows Agent

```
python windowsagent.py
```

4.2 Run Linux Agent

```
python linuxagent.py
```

4.3 Connect Mobile Phone

- Connect your mobile phone to the laptop using a USB cable
- Enable USB Debugging on the phone

4.4 Run Android Agent

```
python androidagent.py
```

Result: All agents start successfully and connect to the API server.

Important: Keep all agent terminals running.

Step 6: Run Flutter Application

Open a new terminal in the Flutter project directory.

Run the Flutter app:

```
flutter run
```

Result: Flutter application builds and runs on the connected mobile device. The app communicates with the API server using Cloudflared URL.

Notes

- Do not close any terminal while the project is running
- If Cloudflared link changes, repeat Step 3
- If API server stops, restart everything from Step 1
- Internet will be Required.