Pirates of the C - IoT Temperature Monitoring System

MQTT Protocol

IoT Device 1		
IoT Device 2	→ MQTT Broker →	Python Server Backend ↔ Web Server
IoT Device 3		

Admin Webpage

User 1 Webpage

User 2 Webpage

Database
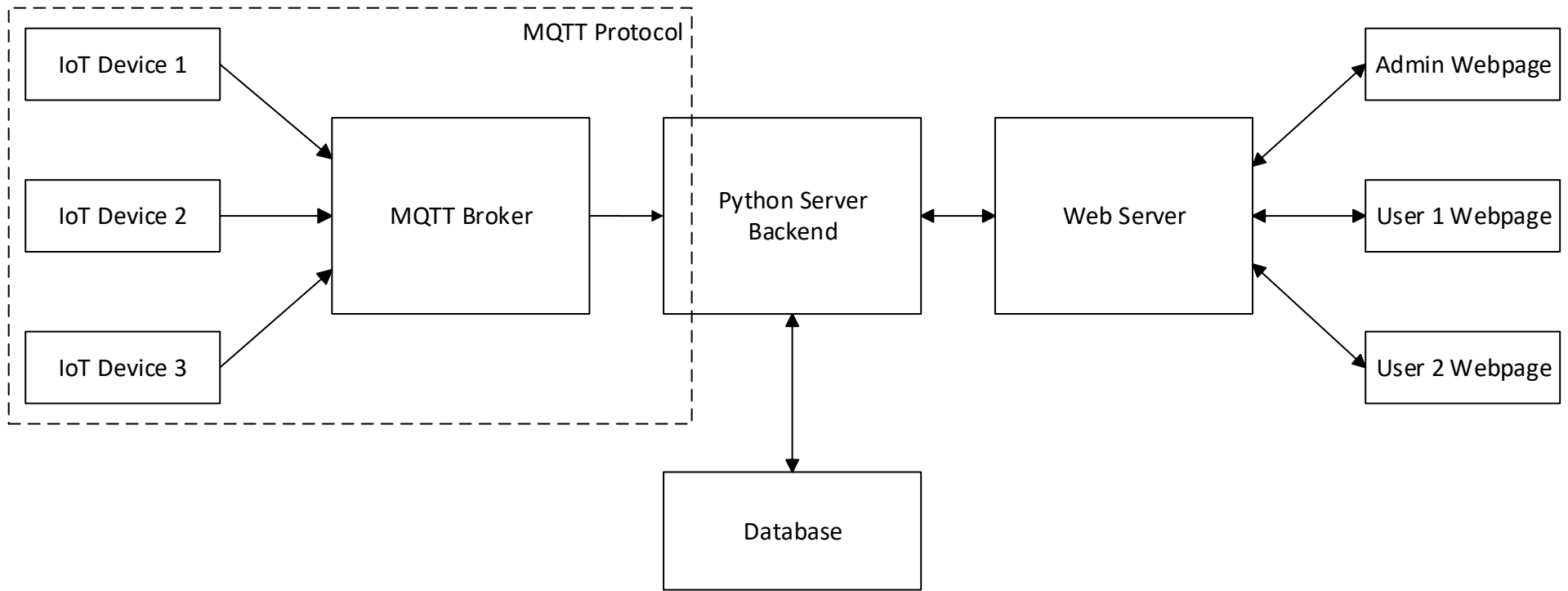
IoT Devices:	MQTT Broker:	Python Backend:	Database:	Web Server:	Client Webpages:
IoT Devices will publish their sensor data though the MQTT protocol to the broker as per the MQTT protocol design.	The broker will manage all devices connected though the MQTT protocol relaying messages and alerting subscribers per the MQTT protocol design.	The python backend will subscribe to MQTT topics and recieve data. The backend will log all data recieved up to a certain date and also stream the data to any active web server clients in realtime.	The database will record all sensor data. In addition the database will also store all configuration data including account credentials and statistics.	The web server will recieve datastreams and backend information and serve web pages to authenticated users. The web server will also stream real time datastreams to users webpages.	The webpages loaded in a users web browser when properly authenticated will display the avaliable sensors on a dashboard and when clicked on will show a history of the sensor data along with the ability to download the data history.