SMART WATER SYSTEM

PROGRAM

import RPi.GPIO as GPIO

import time

import requests

# Configure GPIO pin for the flow meter

FLOW\_METER\_PIN = 18

GPIO.setmode(GPIO.BCM)

GPIO.setup(FLOW\_METER\_PIN, GPIO.IN, pull\_up\_down=GPIO.PUD\_UP)

# Variables to keep track of water consumption

flow\_rate = 0.0

total\_flow = 0.0

# Data-sharing platform endpoint

DATA\_PLATFORM\_URL = "https://your-data-platform-url.com"

while True:

try:

pulse = GPIO.wait\_for\_edge(FLOW\_METER\_PIN, GPIO.FALLING, timeout=10)

if pulse is not None:

flow\_rate += 1

total\_flow += 1

# Send real-time data to the data-sharing platform

data = {

"flow\_rate": flow\_rate,

"total\_flow": total\_flow

}

response = requests.post(DATA\_PLATFORM\_URL, json=data)

# Handle the response if needed

if response.status\_code == 200:

print("Data sent successfully")

except KeyboardInterrupt:

GPIO.cleanup()

break