**1. Patient ID Generator**

Generates unique patient IDs.

def patient\_id\_generator():

id\_num = 1000

while True:

yield f"PID{id\_num}"

id\_num += 1

# Example usage

gen = patient\_id\_generator()

for \_ in range(5):

print(next(gen))

**2. Heart Rate Monitor**

Simulates heart rate readings.

import random

import time

def heart\_rate\_generator():

while True:

yield random.randint(60, 100) # Normal heart rate range

time.sleep(1)

# Example usage

gen = heart\_rate\_generator()

for \_ in range(5):

print(f"Heart Rate: {next(gen)} BPM")

**3. Blood Pressure Readings**

Generates systolic and diastolic blood pressure readings.

import random

def blood\_pressure\_generator():

while True:

systolic = random.randint(90, 140)

diastolic = random.randint(60, 90)

yield (systolic, diastolic)

# Example usage

gen = blood\_pressure\_generator()

for \_ in range(5):

print(f"Blood Pressure: {next(gen)} mmHg")

**4. Step Count Tracker**

Simulates daily step counts.

import random

def step\_count\_generator():

steps = 0

while True:

steps += random.randint(500, 2000)

yield steps

# Example usage

gen = step\_count\_generator()

for \_ in range(5):

print(f"Total Steps: {next(gen)}")

**5. Blood Sugar Level Generator**

Generates blood glucose readings.

import random

def blood\_sugar\_generator():

while True:

yield random.uniform(70, 140) # Normal fasting range

# Example usage

gen = blood\_sugar\_generator()

for \_ in range(5):

print(f"Blood Sugar Level: {next(gen):.2f} mg/dL")

**6. Medication Reminder**

Cycles through a list of medications.

def medication\_reminder(medications):

while True:

for med in medications:

yield med

# Example usage

meds = ["Paracetamol", "Aspirin", "Metformin", "Atorvastatin"]

gen = medication\_reminder(meds)

for \_ in range(6):

print(f"Time to take: {next(gen)}")

**7. BMI Calculator**

Yields BMI values from weight and height inputs.

def bmi\_calculator(weights, heights):

for weight, height in zip(weights, heights):

bmi = weight / (height \*\* 2)

yield round(bmi, 2)

# Example usage

weights = [60, 75, 90]

heights = [1.65, 1.75, 1.80]

gen = bmi\_calculator(weights, heights)

for bmi in gen:

print(f"BMI: {bmi}")

**8. Hospital Bed Availability**

Generates hospital bed availability status.

def bed\_availability(total\_beds):

occupied = 0

while occupied < total\_beds:

yield f"Beds Available: {total\_beds - occupied}"

occupied += 1

yield "No Beds Available"

# Example usage

gen = bed\_availability(5)

for \_ in range(6):

print(next(gen))

**9. Symptom Checker**

Generates probable diseases based on symptoms.

def symptom\_checker(symptoms):

disease\_map = {

"fever": "Flu",

"cough": "Common Cold",

"chest pain": "Heart Disease",

"headache": "Migraine"

}

for symptom in symptoms:

yield disease\_map.get(symptom, "Unknown Condition")

# Example usage

symptoms = ["fever", "cough", "chest pain"]

gen = symptom\_checker(symptoms)

for diagnosis in gen:

print(f"Possible Condition: {diagnosis}")

**10. Calorie Intake Tracker**

Yields total calorie intake per meal.

def calorie\_tracker(meals):

total\_calories = 0

for meal in meals:

total\_calories += meal

yield total\_calories

# Example usage

meals = [500, 700, 600, 400]

gen = calorie\_tracker(meals)

for calories in gen:

print(f"Total Calories: {calories}")