NAME: MAHSHUVA ZAHAN MUNIA

Department: Environmental Science and Resource Management

Sample Project Statement

Project Title: Waste Collection Reminder System

Project Description: The Waste Collection Reminder System is a Python-based application designed to help residents keep track of their waste collection schedule. The program provides users with reminders about upcoming waste collections based on predefined collection days for various waste types, including Trash, Recycling, Yard Waste, and Food Waste.

Features:

- **Daily Reminders:** The system checks the current day of the week and sends a reminder if any waste type is scheduled for collection that day.
- **Weekly Schedule Display:** Users can view the upcoming waste collection schedule for the week, detailing which type of waste will be collected on each day.
- **User-Friendly:** The program is straightforward to run and can be customized easily to accommodate different collection days or waste types.

Here is my python code:

```
waste_schedule = {

    "Trash": "Tuesday",

    "Recycling": "Thursday",

    "Yard Waste": "Saturday",

    "Food Waste": "Monday"  }
```

```python
def check_waste_collection():
    today = datetime.today().strftime("%A")
    reminders = []
    for waste_type, collection_day in waste_schedule.items():
        if today == collection_day:
            reminders.append(f"Reminder: {waste_type} collection is today!")

    if reminders:
        print("\n".join(reminders))
    else:
        print("No waste collection today.")

def weekly_schedule():
    print("Upcoming Waste Collection Schedule:")
    today = datetime.today()
    for i in range(7):
        day = (today + timedelta(days=i)).strftime("%A")
        for waste_type, collection_day in waste_schedule.items():
            if day == collection_day:
                print(f"{day}: {waste_type} collection")

check_waste_collection()
weekly_schedule()
```

Output of the Waste Collection Reminder system project:

Reminder: Food Waste collection is today!

Upcoming Waste Collection Schedule:

Monday: Food Waste collection

Tuesday: Trash collection

Thursday: Recycling collection

Saturday: Yard Waste collection

```
Reminder: Food Waste collection is today!
Upcoming Waste Collection Schedule:
Monday: Food Waste collection
Tuesday: Trash collection
Thursday: Recycling collection
Saturday: Yard Waste collection
```