

Name: Emir Dincer
Class: ECO 32500 - Python for Business Analytics
Date Due: 11/15/2024

HW 8: Mail a Letter

1. Identify the problem, metric, be specific

- **Problem:** You need to send a physical letter to someone (Objective: ensure the letter reaches its destination as fast and safe as possible).
- **Question:** What is the best way to prepare and mail a letter efficiently?
- **Why the question:** Following the correct process ensures your letter arrives on time and to the correct recipient.

2. What do I need to know to answer the question?

- **Action point:** Understand the requirements for mailing a letter, including addressing, postage, and drop-off locations.
- **What needs collecting:**
 - The recipient's full name and address.
 - Your return address (so it can be returned if undeliverable).
 - Proper postage (stamps or pre-paid envelope in the top right corner).
- **Beginning data:** Write the letter and place it in an envelope. Ensure the envelope is sealed properly.
- **Collect data for:** Confirming the recipient's address format and the correct amount of postage required.

3. Identify all things I need to know before mailing

- **Budget:** Postage costs may vary depending on the destination (domestic or international) and the letter's weight.
- **What raw data:** The destination address, return address, and postage rates.
- **Inferences:** If the letter is bulky or heavy, you may need additional stamps or a different mailing service.

4. Organize the data and decide what I need to collect

- **Data Cleaning:** Ensure the recipient's address is accurate and formatted correctly (e.g., street, city, state, ZIP code).
- **Outliers:** If sending internationally, check for any special requirements (customs forms, specific postage).
- **Make data usable:** Place the address clearly on the center of the envelope and your return address in the top-left corner.
- **Data Relationships:** Match the envelope size and weight with the correct postage to avoid delays.
- **Apparent vs. Inferred:** Don't assume all letters require the same postage—confirm based on weight and destination.

5. Find and identify the relationships

- **Look for:** Connections between the weight of the letter, its destination, and the required postage.
- **Outliers:** Bulky or oversized letters may need extra postage or special handling.

- **Percentage:** Determine if the majority of letters you send are domestic or international and adjust your preparation accordingly.
- **Chart:** Visualize the process from writing the address to dropping the letter at the mailbox to ensure all steps are completed.
- **Root cause:** Ensure proper addressing and postage to avoid delays or the letter being returned.

6. **Find a solution**

- **Undo the problem:** If the letter is returned for insufficient postage or incorrect address, fix the issue and re-mail it.
- **Change the situation:** For frequent mailings, consider using pre-stamped envelopes or an online service to print labels.

7. **Presentation/Tell a story**

- **Opportunities:** Mailing a letter correctly allows for reliable communication, whether personal or professional, and ensures timely delivery.