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Class: ECO 32500 - Python for Business Analytics

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HW 10: Peel a banana

1. Identify the problem, metric, be specific

- Problem: You need to peel a banana to eat it (Objective: remove the peel efficiently without damaging the edible part).
- Question: What is the best way to peel a banana quickly and cleanly?
- Why the question: Peeling a banana properly ensures that the fruit is easy to eat, minimizes waste, and avoids creating a mess.

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

- Action point: Understand the structure of the banana and the different methods for peeling.
- What needs collecting:
 - Ripeness of the banana (easier to peel if ripe).
 - Preferred peeling method (e.g., from the stem or bottom).
- Beginning data: Hold the banana and decide which end to start peeling from.
- Collect data for: Determining the easiest way to peel based on the banana's firmness and ripeness.

3. Identify all things I need to know before peeling

- Budget: None, but consider the cost of the banana and avoid waste by peeling carefully.
- What raw data: Observe the banana's condition (e.g., yellow, brown spots, or green).
- o **Inferences:** Based on the ripeness, choose a method that will make peeling easier (e.g., pinch the bottom if the stem is tough to open).

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

- Data Cleaning: Ensure the banana is clean and free from dirt or debris before peeling.
- Outliers: If the banana is overripe, peel carefully to avoid squishing the fruit.
- Make data usable: Start peeling from your preferred end (stem or bottom), removing one strip of peel at a time.
- Data Relationships: Recognize the relationship between ripeness and ease of peeling.
- Apparent vs. Inferred: Don't assume the stem is always the easiest starting point; adapt based on the banana's condition.

5. Find and identify the relationships

- Look for: The connection between how you peel the banana and the ease of access to the fruit.
- Outliers: Some bananas may be unusually firm or soft, requiring alternative methods (e.g., using a knife for tough stems).
- Percentage: Determine how much of the peel needs to be removed to fully access the fruit.
- **Chart:** Visualize the process step by step (e.g., pinch, peel, eat) to ensure efficiency.
- Root cause: Ensure the peeling method suits the banana's condition to avoid wasting the fruit.

6. Find a solution

- Undo the problem: If the peel doesn't come off easily, adjust your grip or use a small tool to break the peel gently.
- Change the situation: Experiment with peeling from the bottom, a technique often used by monkeys, for easier access.

7. Presentation/Tell a story

• **Opportunities:** Peeling a banana effectively allows you to enjoy the fruit quickly and cleanly, making it a convenient and healthy snack.