



Welcome to this session

Skills Bootcamp:

Tutorial

The session will start shortly...

Questions? Drop them in the chat.
We'll have dedicated moderators
answering questions.



Safeguarding & Welfare

We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:



Ian Wyles
Designated Safeguarding
Lead



Simone Botes



Nurhaan Snyman



Rafiq Manan



Ronald Munodawafa



Tevin Pitts

Scan to report a
safeguarding concern



or email the Designated
Safeguarding Lead:
Ian Wyles

safeguarding@hyperiondev.com

Skills Bootcamp Full Stack Web Development

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(Fundamental British Values: Mutual Respect and Tolerance)**
- No question is daft or silly - **ask them!**
- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. We will be answering questions as the session progresses as well.
- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Academic Sessions. You can submit these questions here: **Questions**

Skills Bootcamp Cloud Web Development

- For all **non-academic questions**, please submit a query:
www.hyperiondev.com/support
- **Report a safeguarding incident:** www.hyperiondev.com/safeguardreporting
- We would love your feedback on lectures: [Feedback on Lectures.](#)
- Find all the lecture **content** in your [Lecture Backpack](#) on GitHub.
- If you are hearing impaired, kindly use your computer's function through Google chrome to enable captions.

Skills Bootcamp Progression Overview

✓ Criterion 1 - Initial Requirements

Specific achievements **within the first two weeks** of the program.

To meet this criterion, students need to, by no later than **01 December 2024 (C11)** or **22 December 2024 (C12)**:

- **Guided Learning Hours (GLH):** Attend a **minimum of 7-8 GLH per week** (lectures, workshops, or mentor calls) for a total minimum of **15 GLH**.
- **Task Completion:** Successfully complete the **first 4 of the assigned tasks**.

✓ Criterion 2 - Mid-Course Progress

Progress through the successful completion of tasks **within the first half** of the program.

To meet this criterion, students should, by no later than **12 January 2025 (C11)** or **02 February 2025 (C12)**:

- **Guided Learning Hours (GLH):** Complete at least **60 GLH**.
- **Task Completion :** Successfully complete the **first 13 of the assigned tasks**.

Skills Bootcamp Progression Overview

✓ Criterion 3 – End-Course Progress

Showcasing students' progress nearing the completion of the course.

To meet this criterion, students should:

- **Guided Learning Hours (GLH):** Complete the **total minimum required GLH**, by the **support end date**.
- **Task Completion : Complete all mandatory tasks**, including any necessary resubmissions, by the end of the bootcamp, **09 March 2025 (C11)** or **30 March 2025 (C12)**.

✓ Criterion 4 - Employability

Demonstrating progress to find employment.

To meet this criterion, students should:

- **Record an Interview Invite:** Students are required to record proof of invitation to an interview by **30 March 2025 (C11)** or **04 May 2025 (C12)**.
 - **South Holland Students** are required to proof and interview by **17 March 2025**.
- **Record a Final Job Outcome :** Within 12 weeks post-graduation, students are required to record a job outcome.

Stay Safe Series:

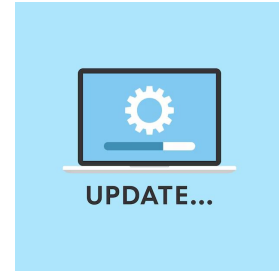
Mastering Online Safety One week at a Time

While the digital world can be a wonderful place to make education and learning accessible to all, it is unfortunately also a space where harmful threats like online radicalization, extremist propaganda, phishing scams, online blackmail and hackers can flourish.

As a component of this BootCamp the ***Stay Safe Series*** will guide you through essential measures in order to protect yourself & your community from online dangers, whether they target your privacy, personal information or even attempt to manipulate your beliefs.

Patch it Up:

The Importance of Regular Software Updates



1. Fixes security vulnerabilities in your system, preventing cyber attacks.
2. Ensures your devices are protected from newly discovered threats.
3. Improves software performance and reliability.
4. Enable automatic updates for operating systems and software where possible.
5. Regularly check for updates on apps that don't update automatically.
6. Set reminders to check for updates on devices you use less frequently.
7. Prioritize updates labeled as critical or security updates.



Why is data cleaning important in data analysis?

- A. To save storage space
- B. To ensure accurate and reliable insights
- C. To make data visually appealing
- D. To remove unused data



If a dataset has missing values, which of the following is NOT a common approach to handle them?

- A. Remove rows with missing values
- B. Fill missing values with averages or medians
- C. Leave missing values untouched without understanding their impact
- D. Replace missing values with default or estimated values

Learning Outcomes

- Clean messy data
- Manipulate and analyse datasets
- Derive insights to make real-world decisions

Lecture Overview

- Introduction
- Part 1
- Break
- Part 2
- Assessment and Q&A



The Problem of Food Security

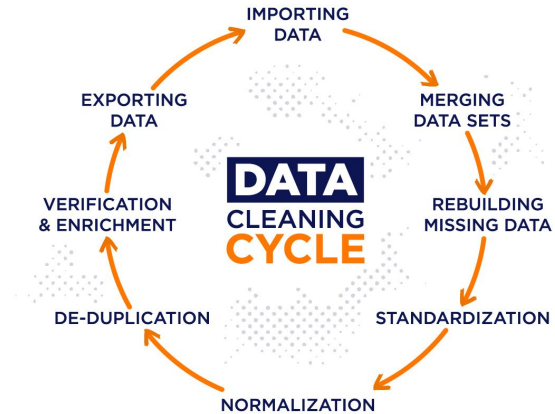
- ❖ What is food insecurity?
- ❖ How data plays a role in solving this problem:
 - Identifying areas in need.
 - Analyzing donation trends.
 - Improving efficiency in resource allocation.

Dataset

- ❖ A dataset of food bank donations, population hunger index per region, and food wastage reports.
- ❖ Example:
 - donations.csv: Contains donation types, amounts, and regions.
 - hunger.csv: Contains regional poverty and hunger indices.
 - food_wastage.csv: Contains data on food wastage per region.

Overview of Data Cleaning Process

- ❖ Identify Issues:
 - Use exploratory data analysis (EDA).
- ❖ Handle Missing Data:
 - Impute, drop, or flag missing values.
- ❖ Standardize Data:
 - Ensure consistency in formats.
- ❖ Remove Duplicates:
 - Retain unique, valid entries.



A hand-drawn graphic on a white background. The text "Let's Get Started" is written in a black, casual script. A red line is drawn around the text, forming an oval shape. A hand is visible at the bottom right, holding a red marker and completing the oval line.

Let's Get
Started

Real-world Challenges

- ❖ Unstructured Data:
 - Text, images, and logs.
- ❖ Large Datasets:
 - Memory constraints.
- ❖ Messy Data Sources:
 - Legacy systems or scraped data.
- ❖ **Tip:**
 - Always tailor cleaning to the context.

Recap Key Points

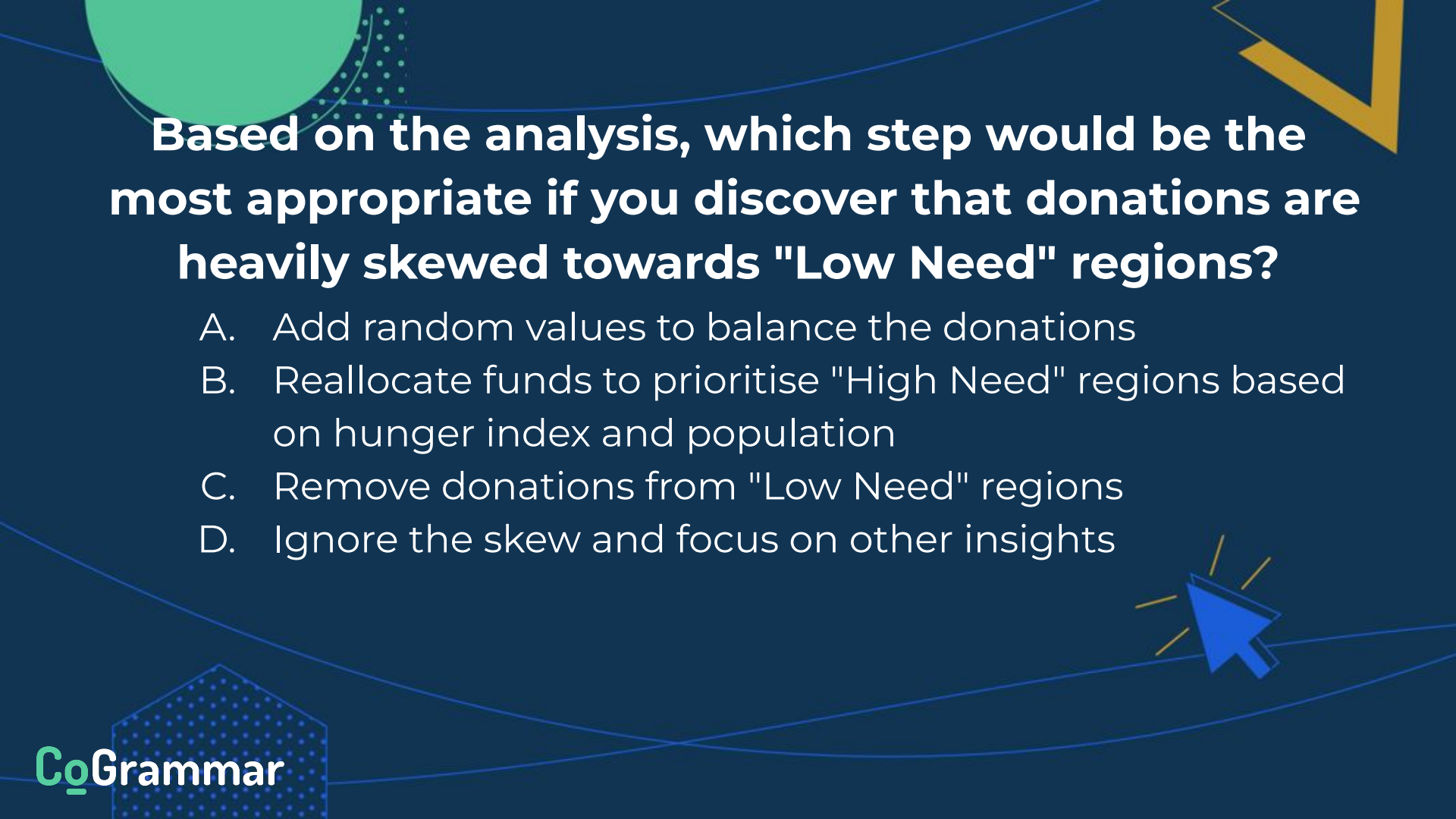
- ❖ Data cleaning ensures accurate and reliable insights.
- ❖ Techniques include handling missing data, duplicates, and outliers.
- ❖ Data manipulation prepares data for analysis and improves efficiency.
- ❖ "Your data is only as good as its quality!"




Further Learning

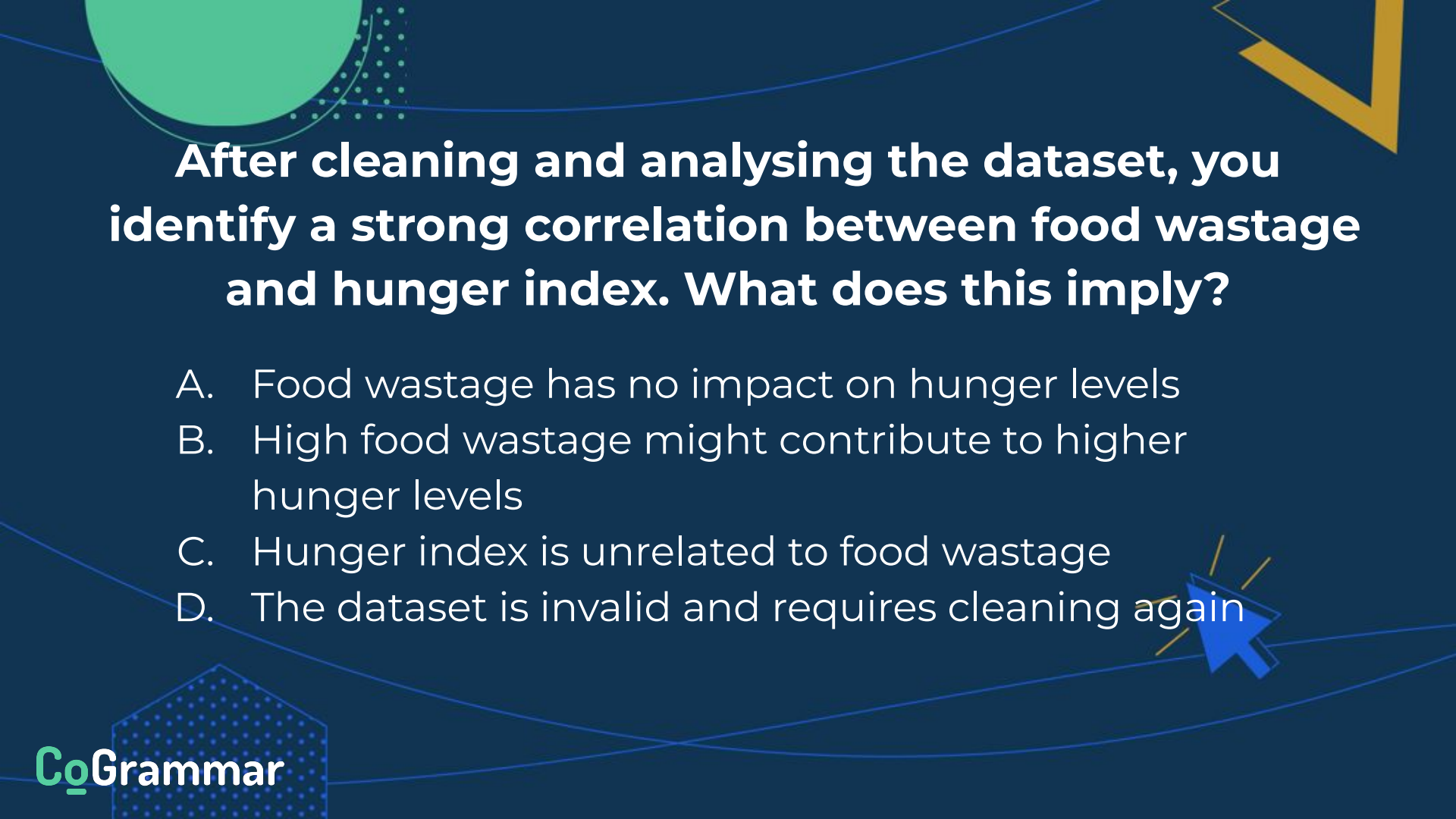
KDNuggets - [Learn Data Cleaning and Preprocessing for Data Science with This Free eBook](#)

Kaggle - [Short Data Cleaning Course](#)




Based on the analysis, which step would be the most appropriate if you discover that donations are heavily skewed towards "Low Need" regions?

- A. Add random values to balance the donations
 - B. Reallocate funds to prioritise "High Need" regions based on hunger index and population
 - C. Remove donations from "Low Need" regions
 - D. Ignore the skew and focus on other insights
- 



After cleaning and analysing the dataset, you identify a strong correlation between food wastage and hunger index. What does this imply?

- A. Food wastage has no impact on hunger levels
 - B. High food wastage might contribute to higher hunger levels
 - C. Hunger index is unrelated to food wastage
 - D. The dataset is invalid and requires cleaning again
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Questions and Answers



Thank you for attending



CoGrammar



Department
for Education