✕

Lesson takeaways

Lesson, module and course completed, high five! ✋🏽 Some points to keep in mind:

⭐ The data science industry is growing quickly. There are opportunities for everyone

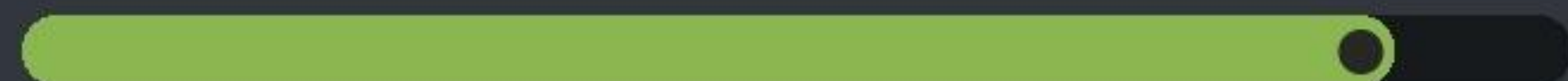⭐ Most of the technical roles require a solid understanding of coding and statistics.

⭐ Other non-technical positions are a great way to break into the industry.

What course are you going to take next? Click on the comments to share your thoughts and connect with your peers.

COMMENTS

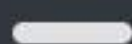CONTINUE

✕   ♥ 3

Roles beyond data science positions

Coding skills are required for the technical data roles you learned about. There are also plenty of opportunities for people from non-tech backgrounds:

🎯 Data product manager
🎯 Data strategy consultant
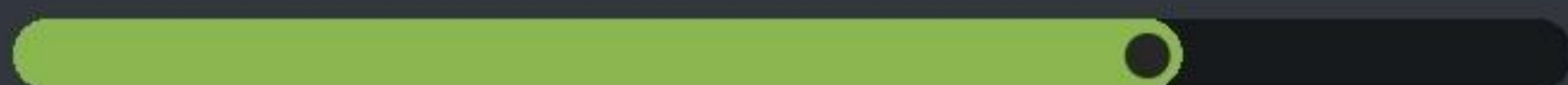🎯 Data ethicist
🎯 Technical writer

Taking one of these roles can be a great gateway to breaking into the data science industry.
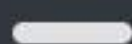
17 COMMENTS

CONTINUE

Data Engineer

Data engineers lay the foundations for a smooth data analysis process. They manage the design and maintenance of the database architecture and data processing systems of a company.
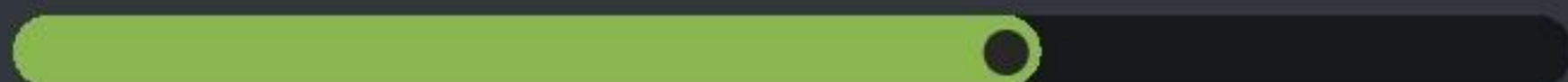
Anyone interested in starting a career as a data engineer should start learning about SQL and a programming language like Python or Java.

10 COMMENTS

CONTINUE

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Select all of the applications that are connected to Machine Learning:

Select all correct answers.
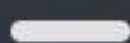
☑ Text autocorrect

☑ Recommendation systems

☑ Face recognition

☑ Maps and navigation
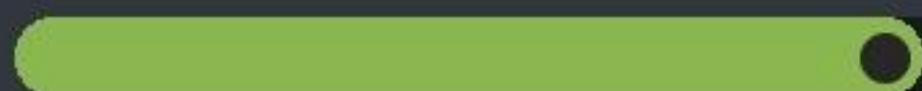
13 COMMENTS

Smashed it

CONTINUE

AI & ML

Today, most AI applications are actually Machine Learning solutions and when people talk about AI and Machine Learning, they might be referring to the same thing.
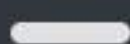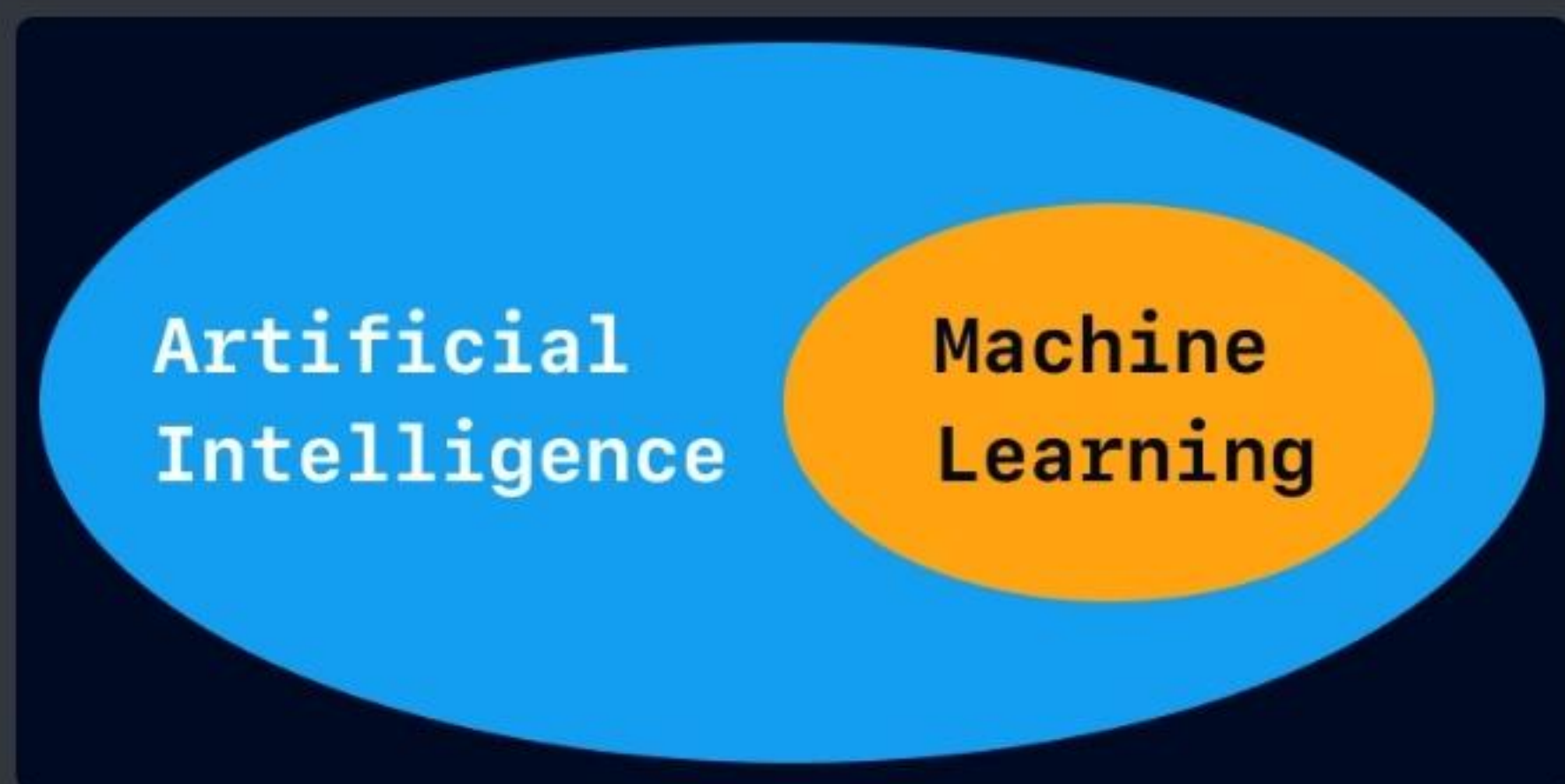
14 COMMENTS

CONTINUE

✕   ♥ 3
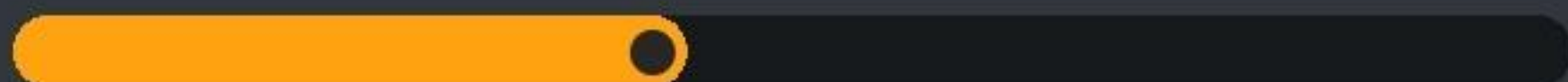
Drag and drop to match the skills with the professionals:

Reports and visualizations:

Data Analyst

Advanced techniques like machine learning:

Data Scientist

—
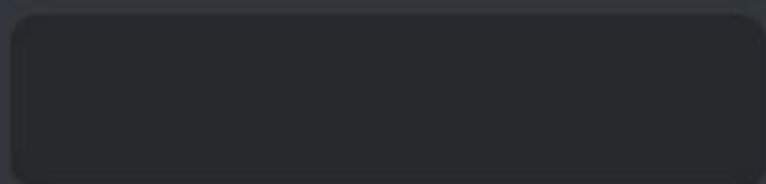
COMMENTS

🔥 🔥 🔥

3 in a row!

CONTINUE

||| ○   ‹

Careers in data

Data has become one of the most important resources in the digital economy. Companies around the world are working to fin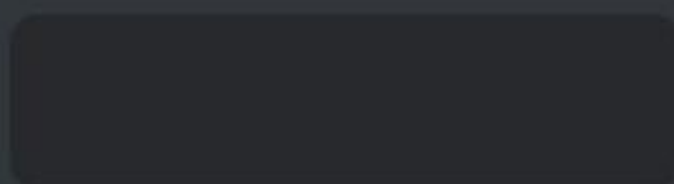d the right talent to leverage the power of data. As a result, jobs in data have become in-demand and prospective careers.

```
    Engineer                Machine Learning

        ↖                           ↗

              Data Roles

        ↙             ↓             ↘

    Architect     Scientist         Analyst
```

In this lesson, you'll explore the different data roles. Let's get started!

12 COMMENTS

CONTINUE

Communicating and Presenting Results
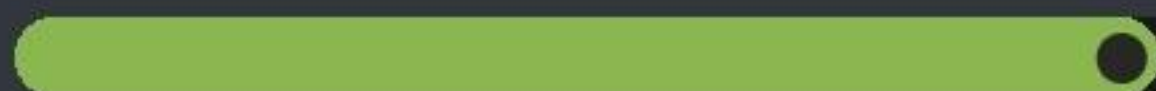
The last step of the data analysis process is **communicating your findings.**

This is where your communication skills will come in handy. At this stage, **data visualization** and **data storytelling** will help you turn data insights into actions.

15 COMMENTS

CONTINUE

Data Cleaning

Data rarely comes in ready for analysis. Raw data is often messy and dirty. Some of the most common problems with data are:

🎯 Missing values
🎯 Duplicates
🎯 Incorrect data type
🎯 Handling anomalous and extreme values (also called **outliers**)
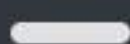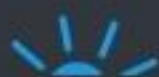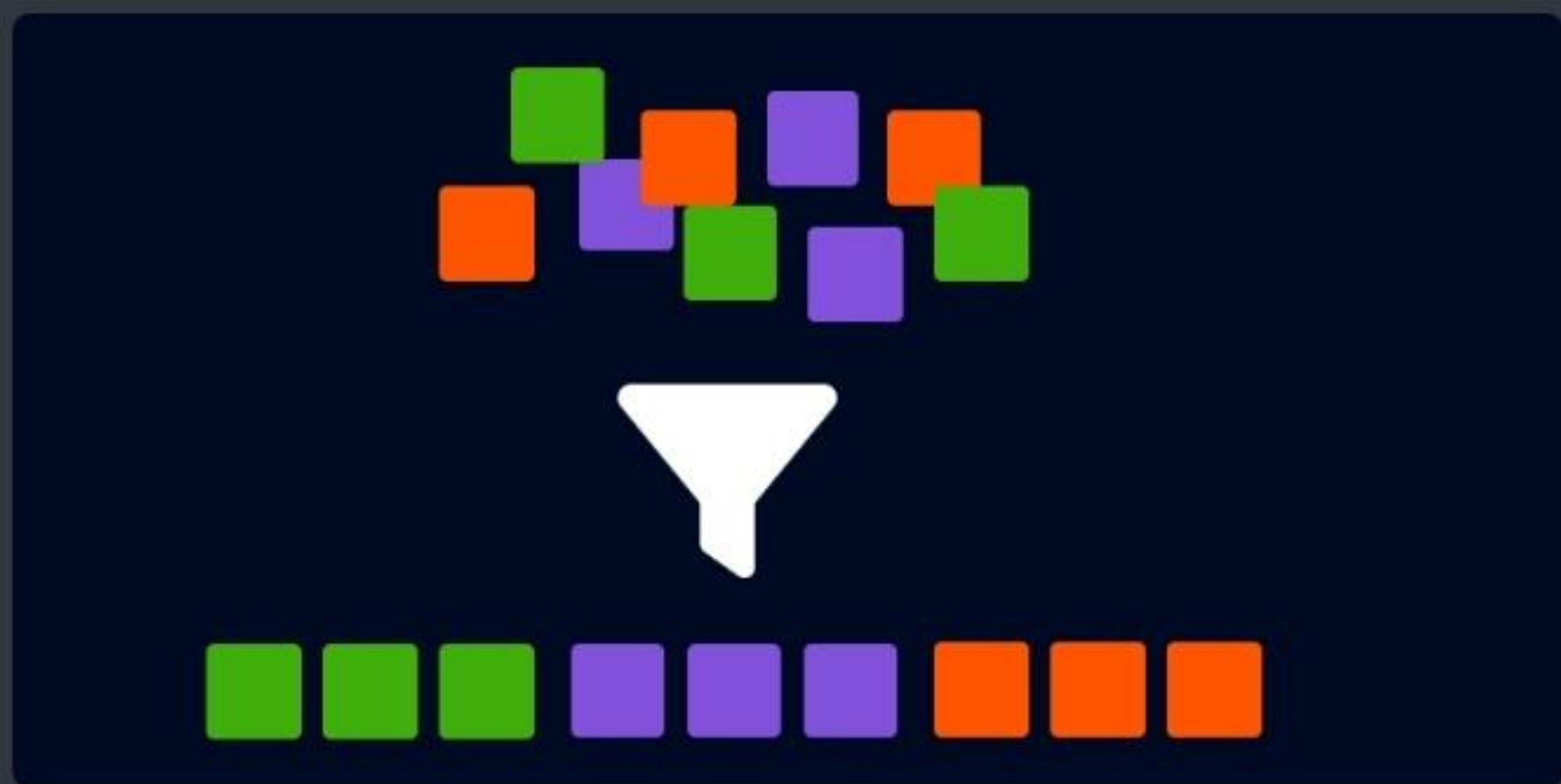
10 COMMENTS

CONTINUE
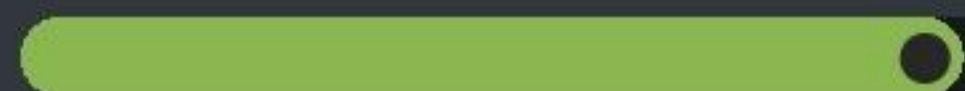
Collecting Data: APIs

Servers are databases that are always connected to the Internet. You can use an Application Programming Interface (API) to request information from servers.
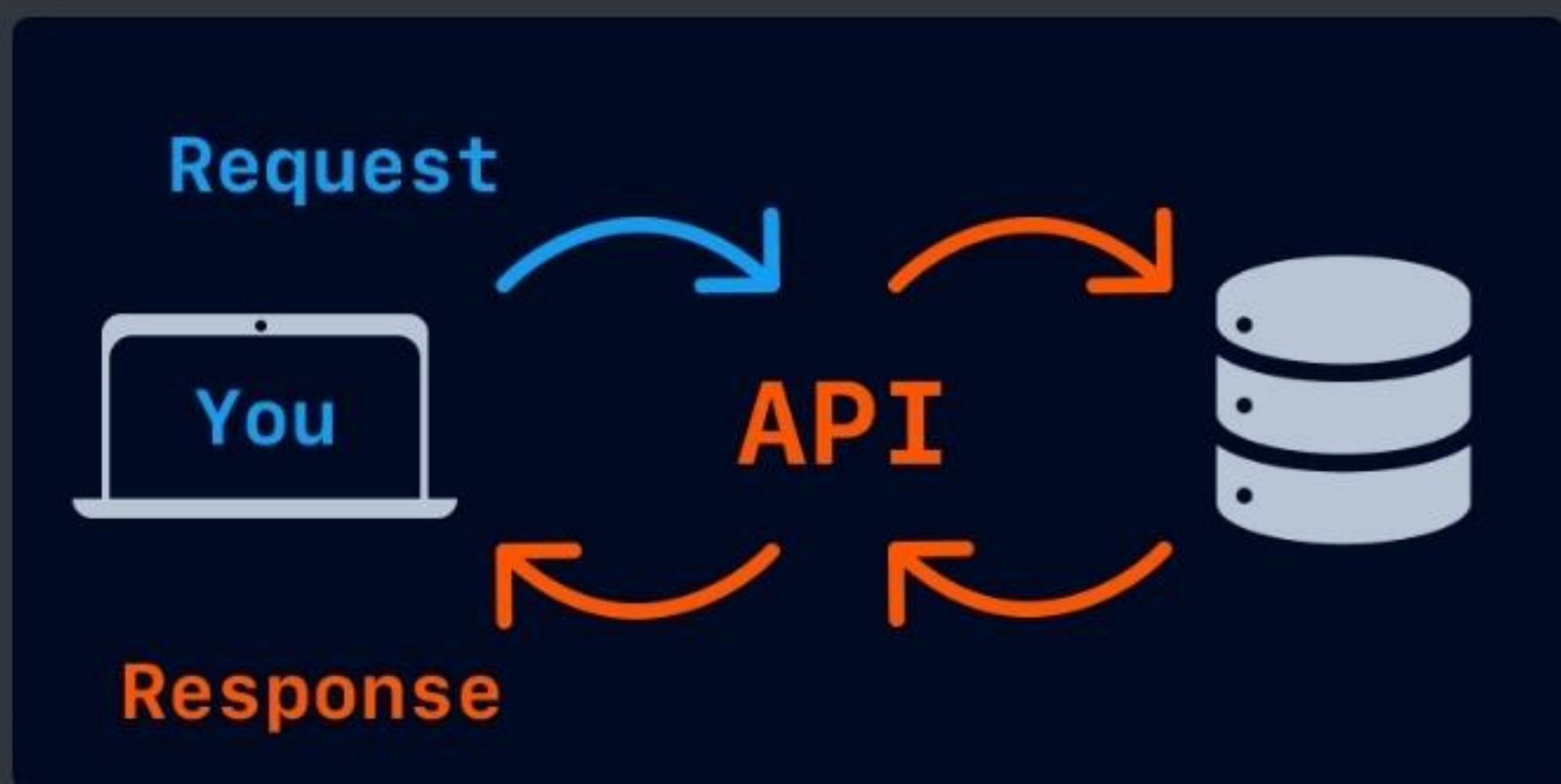
Web APIs open a door to data from a third party platform over the Internet. There are APIs for Facebook, Youtube, Wikipedia and pretty much every other platform.

COMMENTS

CONTINUE

Collecting Data: Web Scraping

There is a vast ocean of information on the Web. Web scraping allows you to extract information displayed on web pages.

There are software tools that can help you scrape the Web. If you know a bit about HTML and can code in a programming language like Python, you can get more control over the information that you can extract from the web pages.
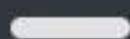
28 COMMENTS

CONTINUE

✕   ♥ 3
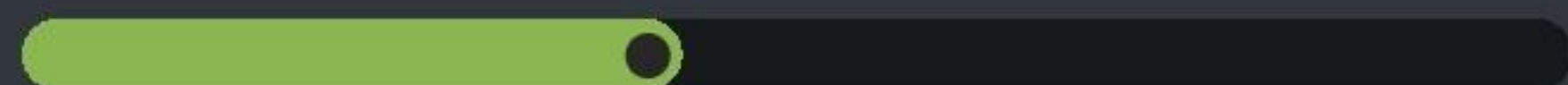
Laura works in the data department of a German bank. She wants to analyze how popular the bank's mobile app is.

Which questions should Laura consider?

Select all correct answers.

| ✔ | Where will the data come from? |

| ✔ | What metrics are going to be used to measure popularity? |

| ☐ | Should Laura open a bank account in another bank? |

| ☐ | Does Laura like the app? |

—
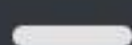
27 COMMENTS

That's it!

CONTINUE

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The Data Analysis Process

The data analysis process defines the 5 steps required to analyze data:

🎯 Ask the right questions
🎯 Collect the data
🎯 Clean the data
🎯 Explore data to finding patterns and insights
🎯 Communicate and present results.
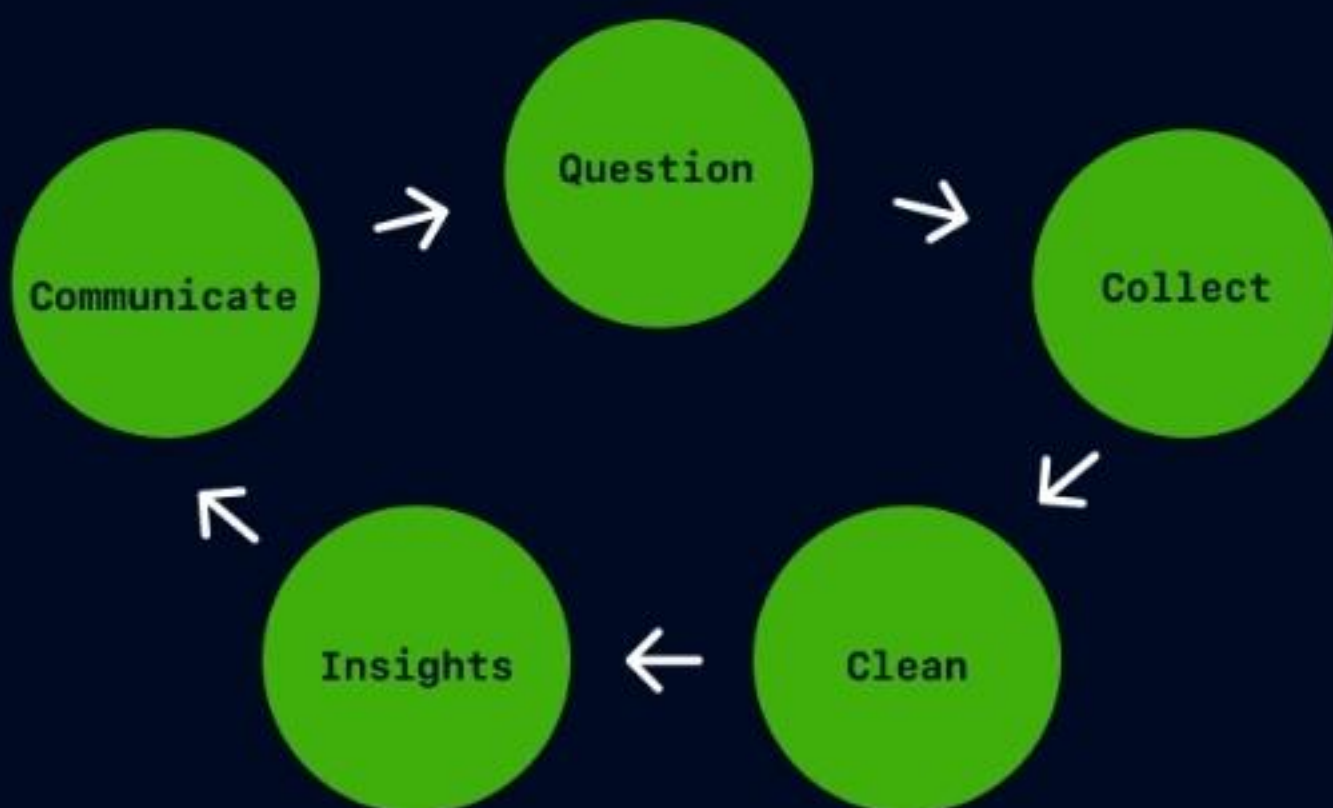
11 COMMENTS

CONTINUE

✕

❤ 1

Patrice has downloaded geospatial data for the city of Barcelona, as well as the locations of English language academies. She noticed that there are some quality issues with the data. In particular, there are some duplicate academies in the records and some street names are very old and need to be replaced with new ones.

What would be the next step?

Explore data to find patterns and insights

Clean the data
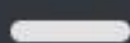
5 COMMENTS

Job well done

CONTINUE

||| ◯ ‹

✕

♥ 2
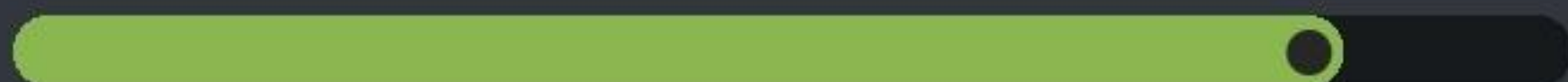
Choose the right tool for each of the following situations:

Working with a single table:

```
spreadsheet
```

Dealing with complex relationships between data types:

```
database
```
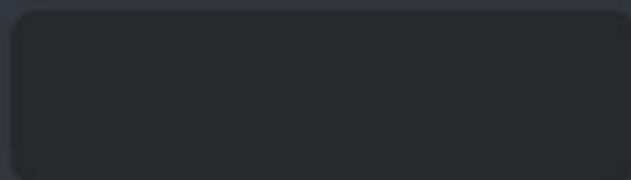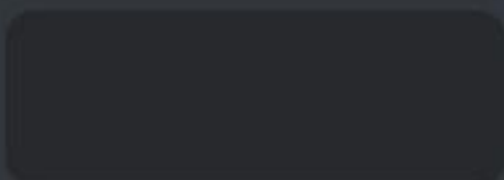
🔒 ANSWER

CHECK

✕
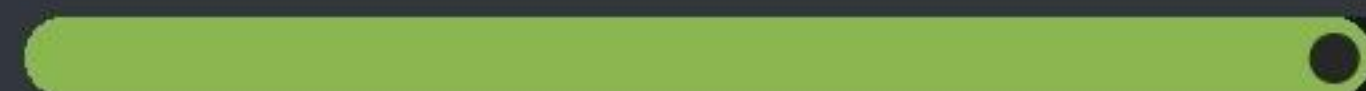
Databases vs Spreadsheets

You might have used spreadsheets like Excel to work with data before. How do they relate to databases?

Databases are better suited to store larger and more complex collections of data. Spreadsheets are useful for quick visualizations and summaries of data.

Database VS Spreadsheet (XLS)

18 COMMENTS

CONTINUE

Hourly_Employee
Id
Hourly_Rate
Employee_Id

Employee
Id
Employee_Name
Employee_Number
Date_Hired
City_Id

Salaried_Employee
Id
Anual_Salary
Employee_Id
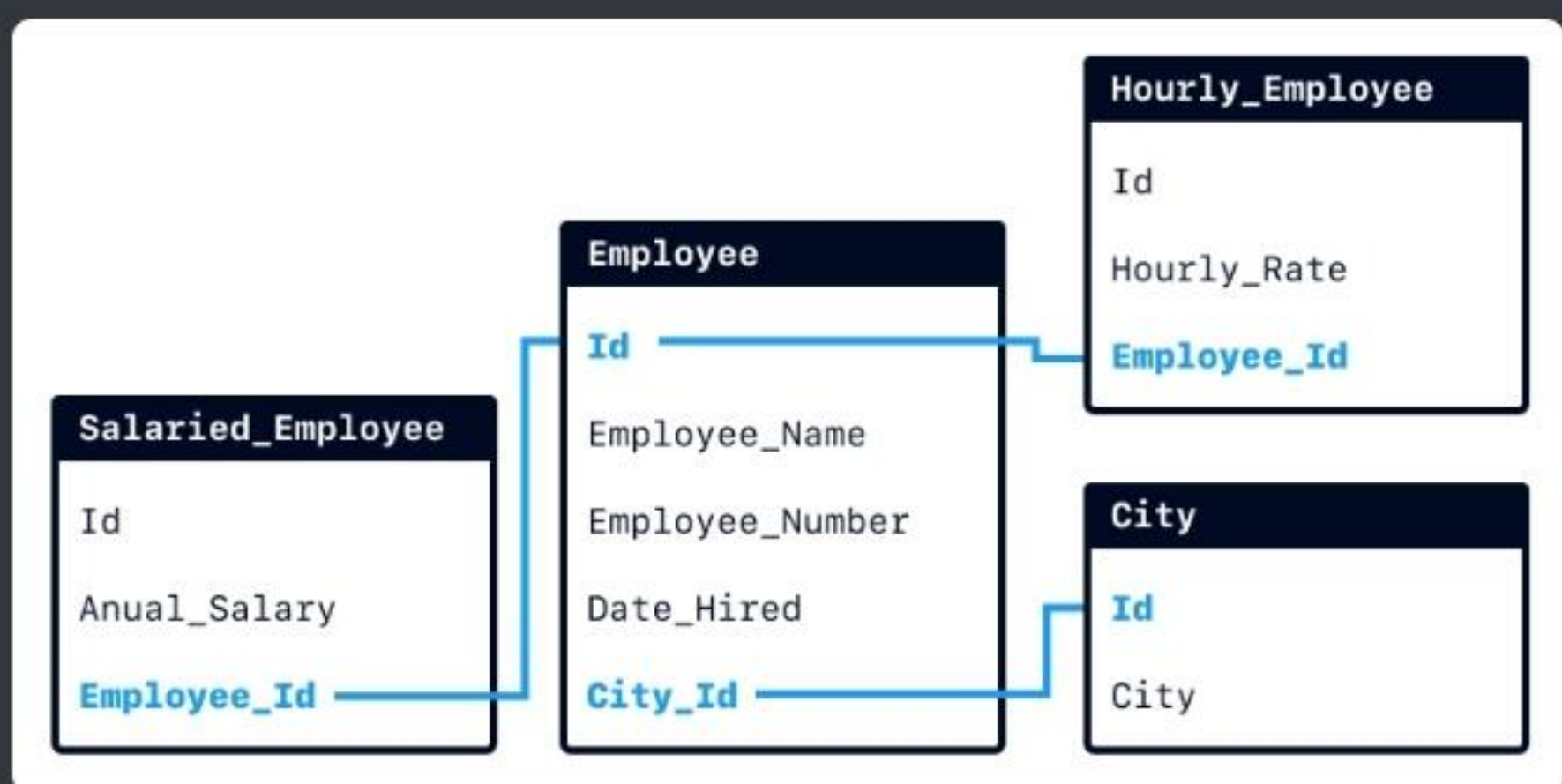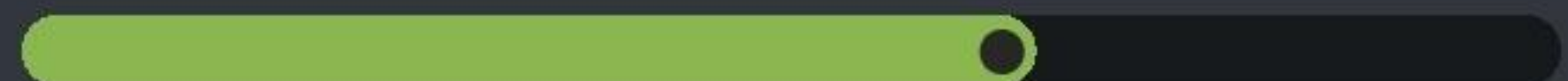
City
Id
City

Select all correct answers.

☑ Names of the employees that were hired in January 2021

☐ Number of employees that cycle to work

☑ Number of employees that live in the city of London

15 COMMENTS

You rock!

CONTINUE

✕
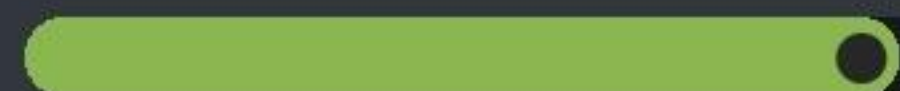
The number of records in the tables is not shown in a database schema.

| Hourly_Employee |
| Id |
| Hourly_Rate |
| Employee_Id |

| Employee |
| Id |
| Employee_Name |
| Employee_Number |
| Date_Hired |
| City_Id |

| Salaried_Employee |
| Id |
| Anual_Salary |
| Employee_Id |

| City |
| Id |
| City |
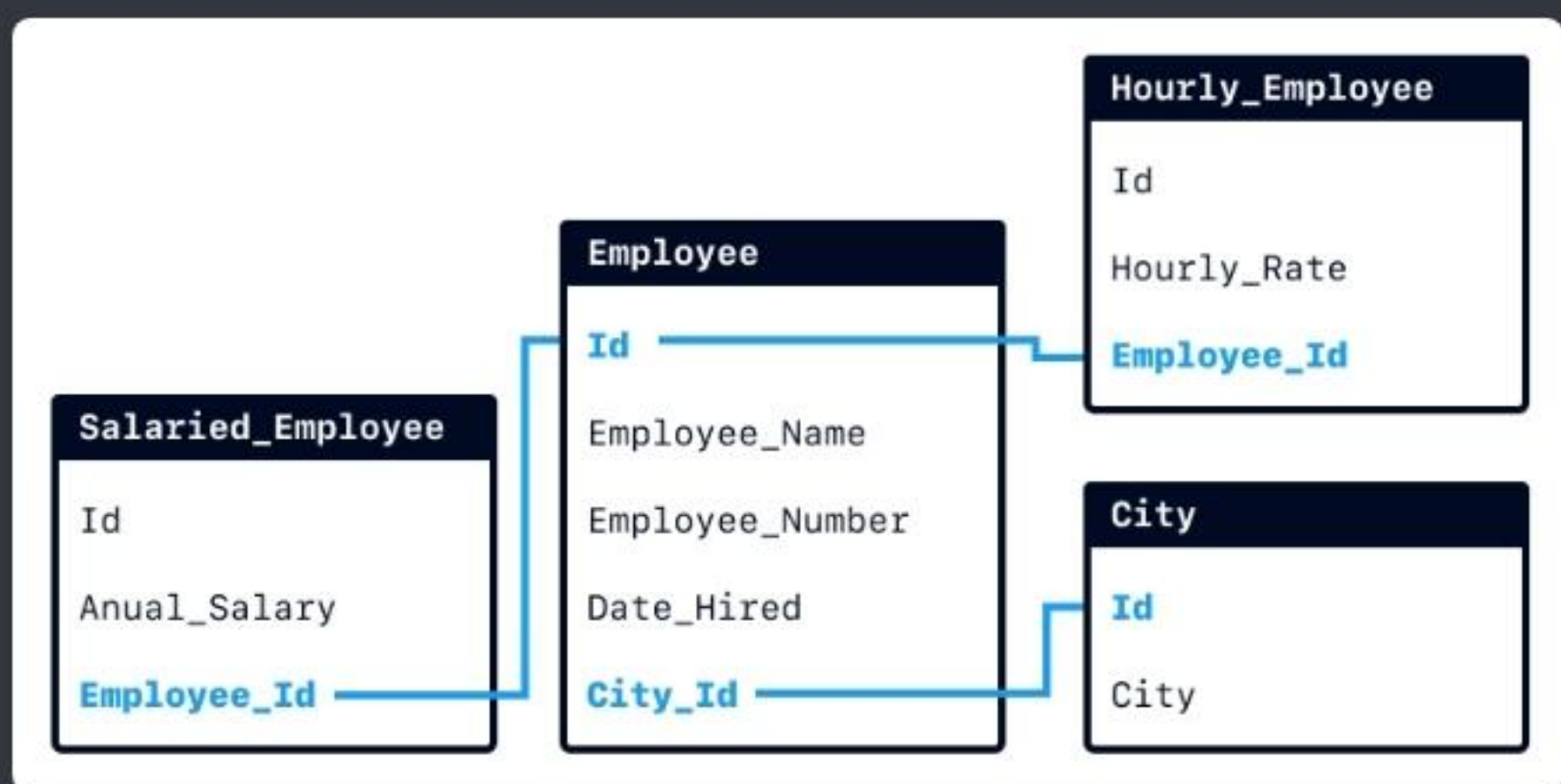
Why do you think this happens?

The number of records in a database is always the same

Databases are designed to store new records. The number of records changes as new data is added to the database

🔒 ANSWER

CHECK

✕ 💗 3
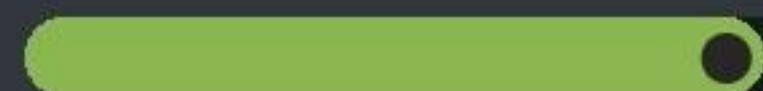
Keys are used to connect the tables.

Students Courses	
StudentId	CourseId
1	3
2	4
3	2
4	1
4	4

Students		
Id	Name	Age
1	Jon	41
2	Cat	22
3	Bob	56
4	Eva	37
5	Sam	25

Courses	
Id	Course
1	Python
2	SQL
3	HTML
4	C#
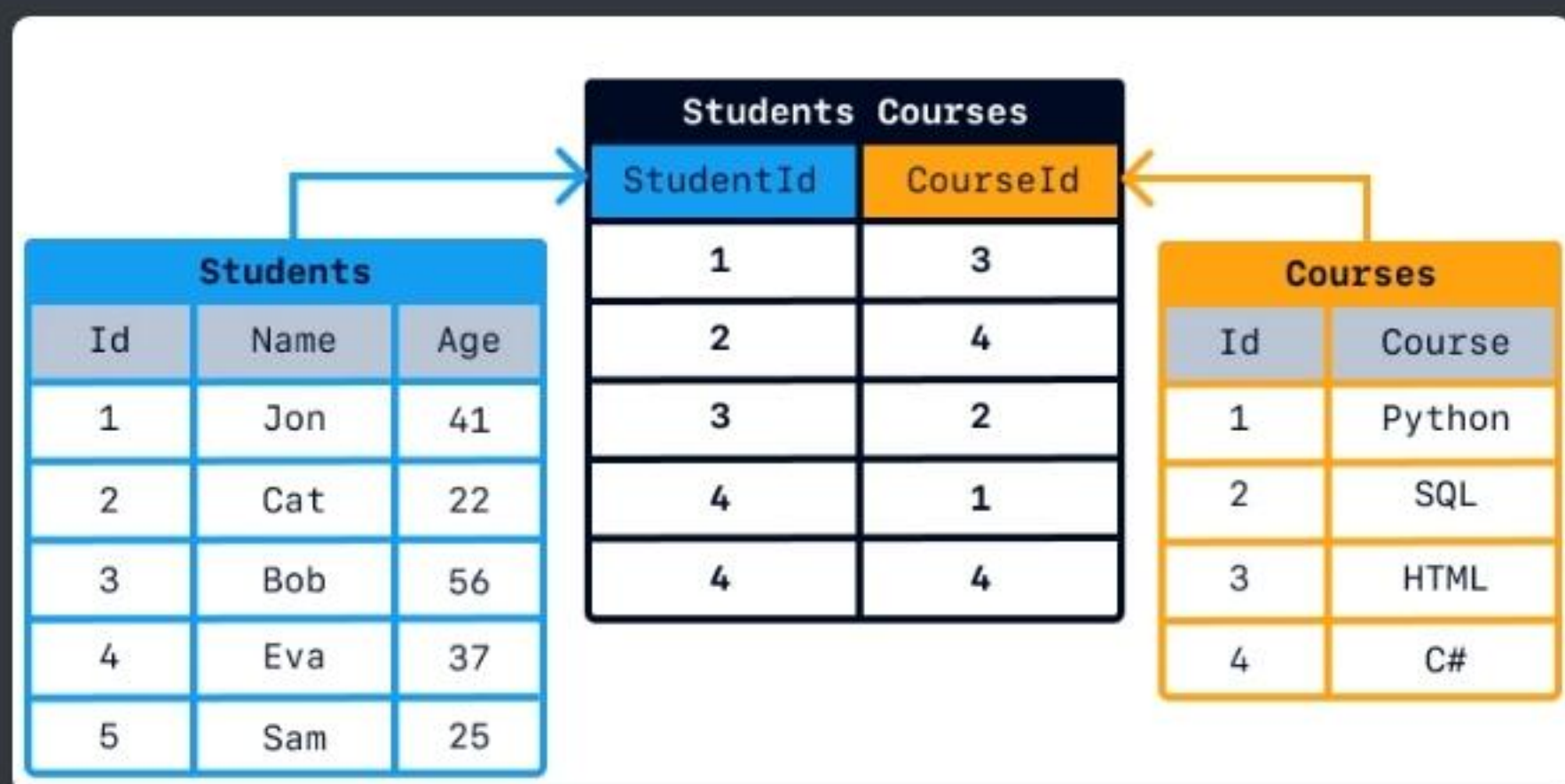
Which field in the **StudentCourses** table is used to connect to the **Courses** table?

CourseId

StudentId

🔓 ANSWER

CHECK

||| ○ ‹
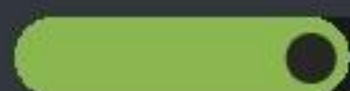
Databases

Databases store, organize and give easy access to data.

A **database** contains related data in an electronic format. The **relational database** is the most common type. Data in a **relational database** is stored in tables with rows (records) and columns (fields).

Record {

ID	Name	e-mail
1	Jon	jon@mail.com
2	Cat	cat@mail.com
3	Bob	bob@mail.com
4	Eva	eva@mail.com

Field

13 COMMENTS

CONTINUE

← **Tech for Everyone** 　 ⋯

HTML 　 CSS 　 JS 　 OUTPUT

The Dancing Robot

Click on the buttons to move the robot.

Left Right

```
1  <h1 style="color:mediumpurple">The Dancing Robot</
   h1>
2  <p style="font-size:large; color:navy">Click on
   the buttons to move the robot.</p>
3  <img id="robot"
   src="https://blob.sololearn.com/courses/robot-c
   .jpg">
4  <button
   onclick="robot.src='https://blob.sololearn.com
   /courses/robot-l.jpg'">Left</button>
5  <button
   onclick="robot.src='https://blob.sololearn.com
   /courses/robot-r.jpg'">Right</button>
6
```

TAB   <   >   /   =   "   RUN ▶

Quais são os alimentos de mais fácil digestão? ⌃

Alimentos de fácil digestão

- Vegetais cozidos.

- Aves e peixe.

- Laticínios.

18 de set. de 2019

Y https://vitat.com.br › alimentos-de-f...

Alimentos de fácil digestão - Vitat

MAIS RESULTADOS

Qual o alimento mais difícil de ser digerido? ⌃

Abacate, agrião, alho, **alimentos** gordurosos, banana d'água, batata-doce, bebidas gasosas, bebidas fermentadas tipo cerveja, brócolis, carnes gordas, cebola, creme de leite integral, couve-flor, couve, doces concentrados, embutidos, fava, feijão, frutas oleaginosas, goiaba, grão-de-bico, jaca, lentilha, melão, melancia, ...

https://www.adrianalauffer.com.br › ...

Alimentos de difícil digestão - Nutricionista

✕   ♥ 2

Fill in the blanks to create a class with a method called "myFunc" that takes no parameters, returns void, and prints "Hi" to the screen.

```
public  class  MyClass  {

  public  void  myFunc  ()  {

    System.out.println(''Hi'');

  }

}
```

7 COMMENTS

Great job.

CONTINUE

||| O   ‹