



Data Guardian

Cleaner data, smarter
insights, greener impact.



aws SIAPARTNERS



Massive Data Warehouses

Fundamental Challenges

Water
Management and
Distribution

Water Quality and
Treatment

Consumption and
Billing

Crisis
Management and
Risk Prediction



Need to Clean up the Data

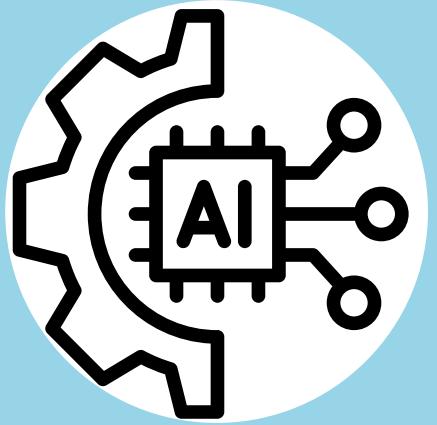
15,000 employees use this data daily

Low-quality data can negatively impact models and lead to inaccurate predictions.

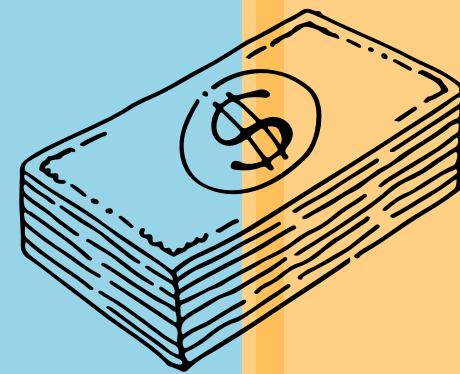
Data scientists waste a lot of their valuable time cleaning this data.



Data Guardian



Automate the Process of
Cleaning Data



Data scientists will save a huge amount of time by no longer having to check data quality.

More time to analyze data and optimize accounts.

More time to focus on environmental issues

Our Solution :



Output

Visual analytics on the dataset to assess feature quality and detect inconsistencies at the row and cell level.

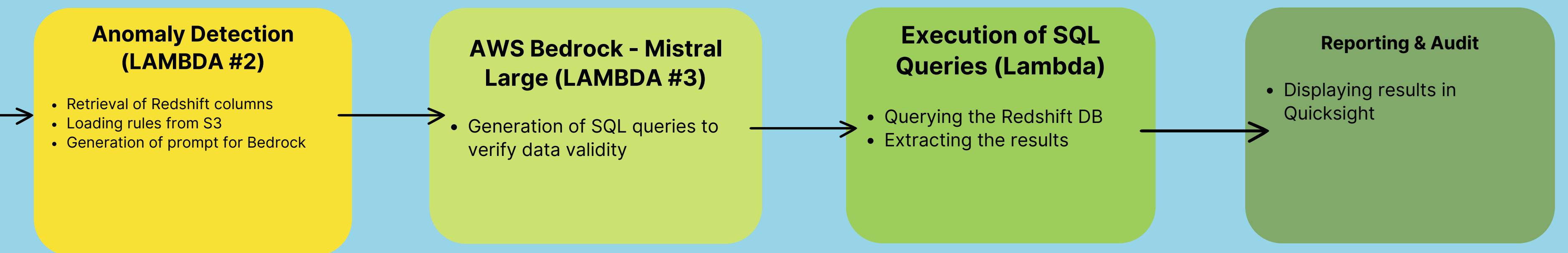


Input

A CSV file with the dataset that needs to be reviewed.

The pipeline





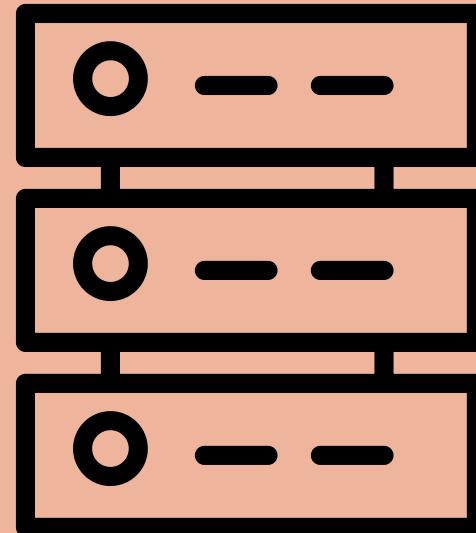
Our ESG commitment

Our technology is designed to maximize efficiency while minimizing environmental impact.

SERVERLESS

CLOUD

SERVERLESS



A river overflows after heavy rains.

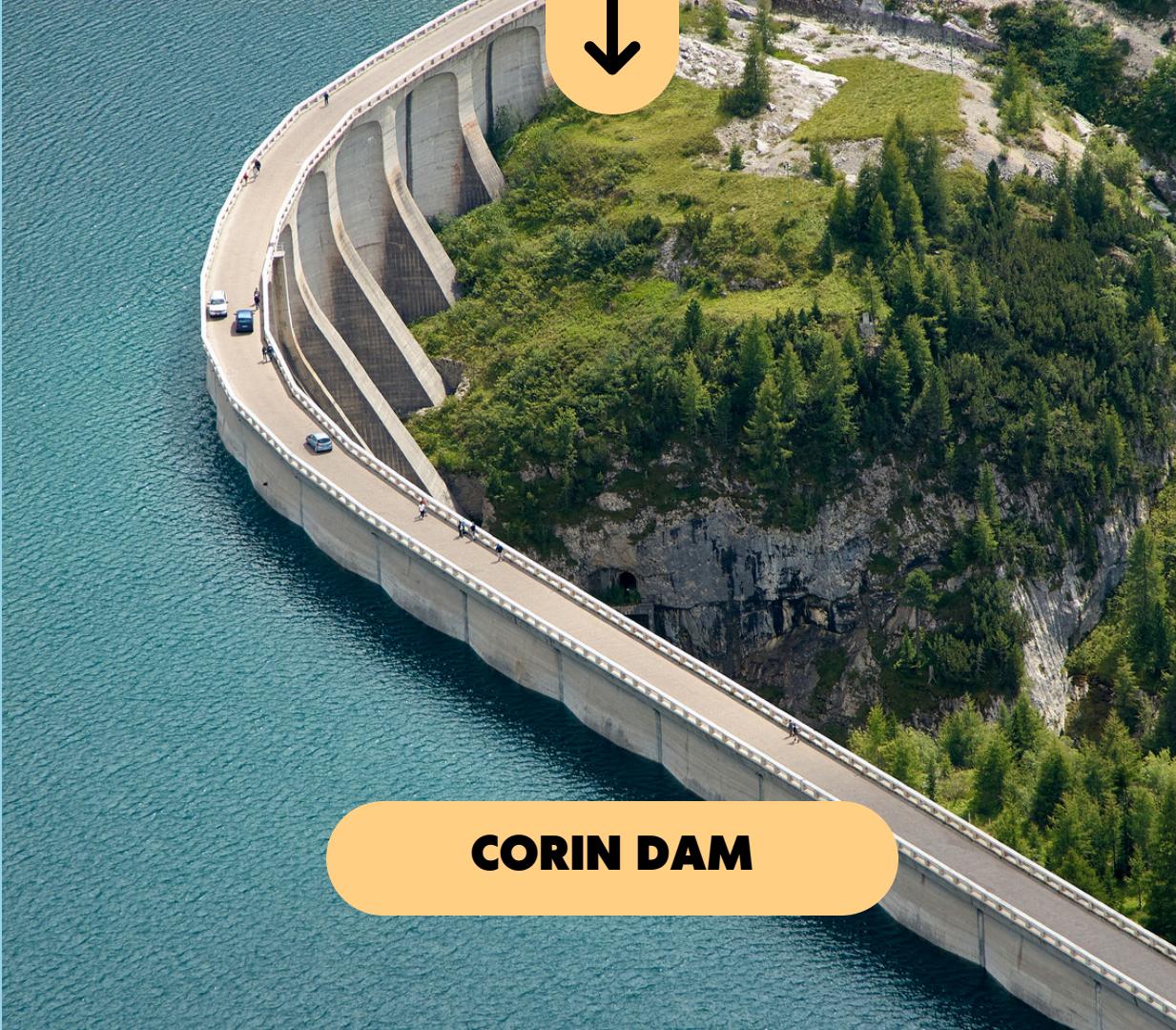
A reservoir dries up after three months of drought.

A water pump releases enough water after the rain.

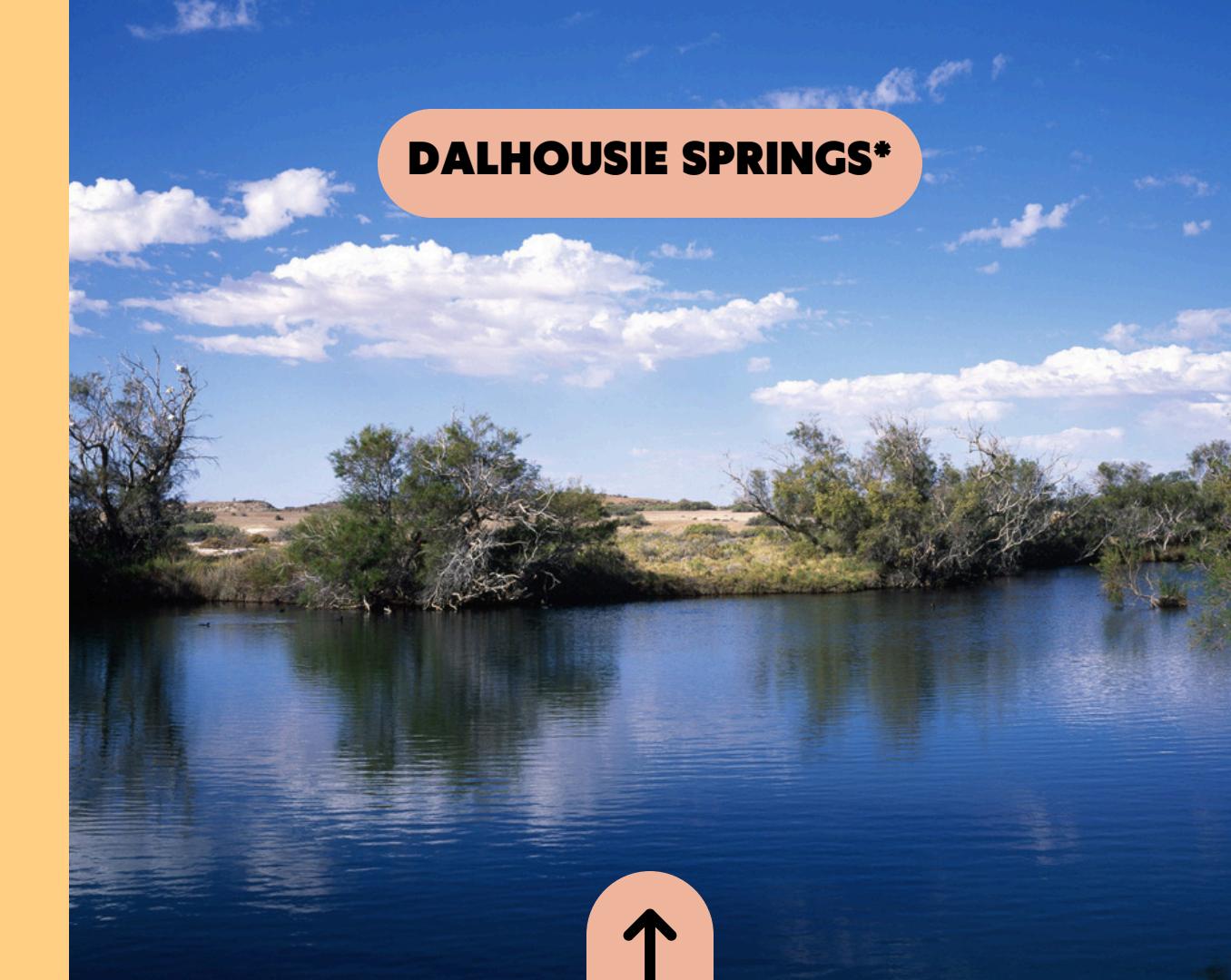
Local Water Sources

Reservoirs

These are artificial lakes created behind a dam and function as water storage.



DALHOUSIE SPRINGS*

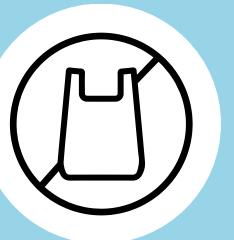


Groundwater

These are waters stored beneath the Earth's surface in spaces between rocks and soil.

*a spring complex in the Great Artesian Basin

Human Impact on Local Water Sources

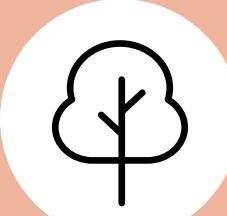


Pollution

Disposing of waste, chemicals or untreated wastewater in bodies of water like rivers, lakes and creeks can cause water pollution, harming plants and animals.



Human Impact on Local Water Sources



Deforestation

Cutting trees and clearing forests can lead to increased runoff. This may cause excessive flooding and soil erosion.



Human Impact on Local Water Sources



Urbanisation

As cities and populations grow, wells may dry up due to excessive water usage, and pollution and the risk of flooding can also increase.



Lake Eyre: The Vanishing Oasis

Lake Eyre is Australia's largest salt lake, but it is rarely filled with water.

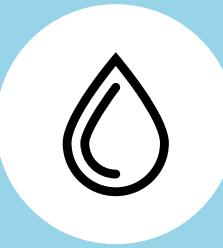


- Which process in the water cycle is responsible for drying it up?
- Where do you think the water from the lake goes?
- What are the threats to Lake Eyre?

Discuss your answers with your seatmate.

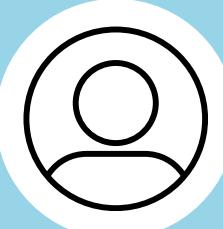


REVIEW



Sources of Water

Sources of water in Australia include rivers, lakes, reservoirs and groundwater.



Human Activities Impacting Water Sources

Pollution, deforestation and urbanisation are some of the human activities that have a negative impact on water sources.

Protecting Our Water Sources

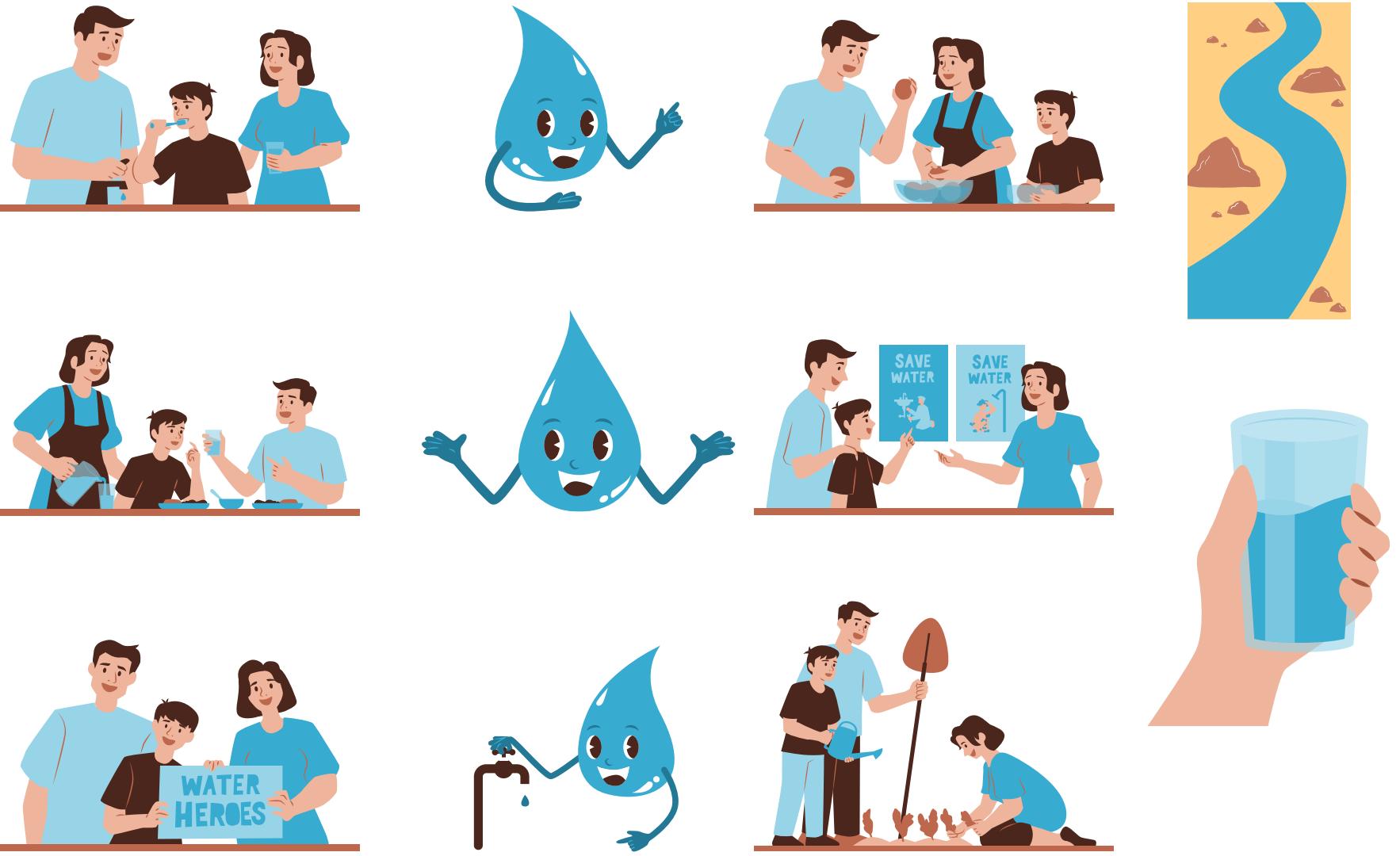
Safeguarding our precious water sources for future generations is crucial.

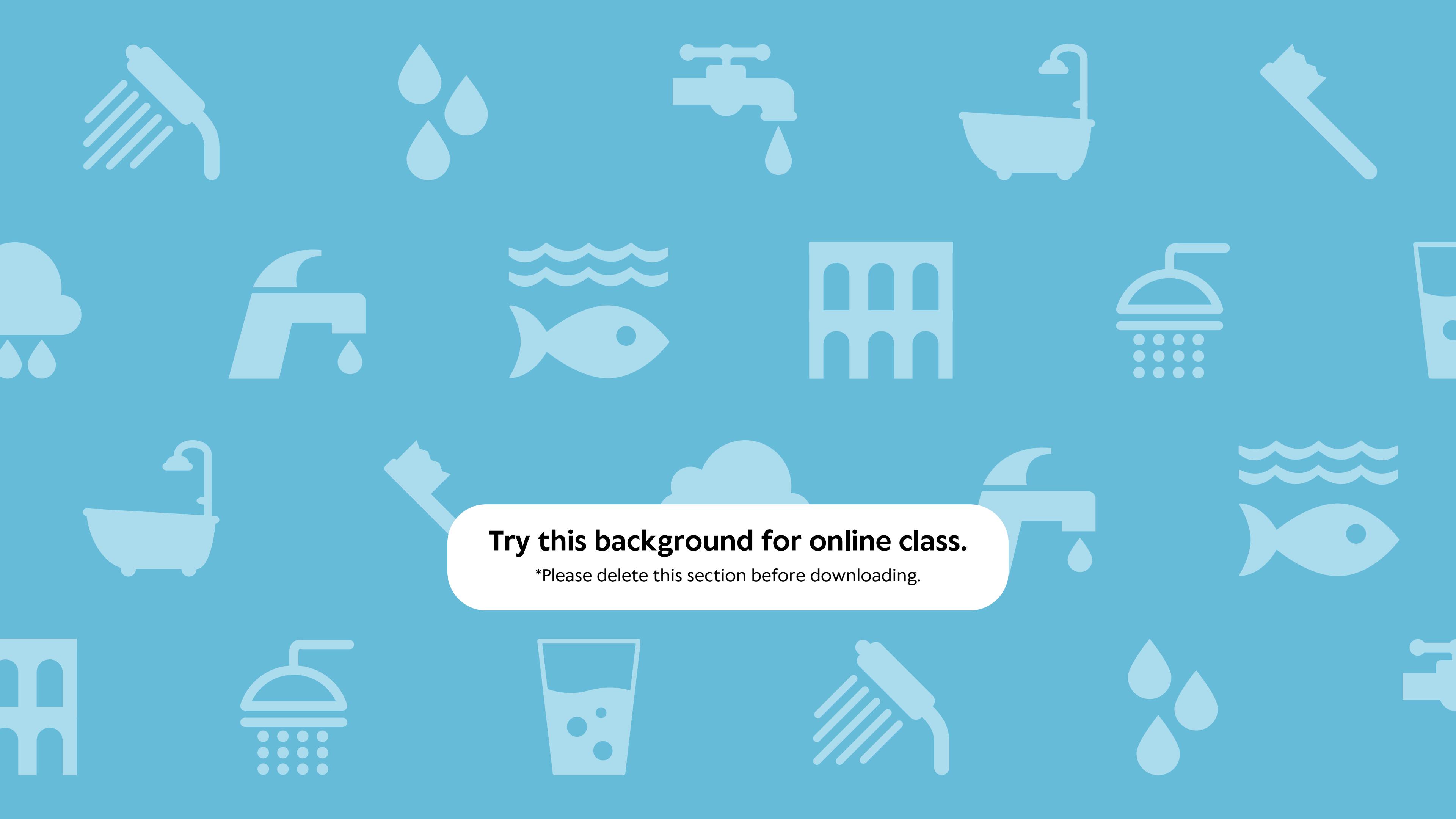
What simple actions can we take to conserve and protect our water resources?



Resource Page

Use these elements and illustrations in your Canva Presentation. To find more graphic elements about the environment and water, use code **canvangss** in the elements search bar. Happy designing! Don't forget to delete this page before presenting.





A repeating pattern of water-related icons in light blue on a white background, including a shower head, raindrops, a faucet, a bathtub, a toothbrush, a fish, waves, a building, a cloud, and a glass of water.

Try this background for online class.

*Please delete this section before downloading.

Press these keys while on Present mode!



B for blur

c for confetti

D for a drumroll

M for mic drop

o for bubbles

Q for quiet

U for unveil

Any number from 0-9
for a timer