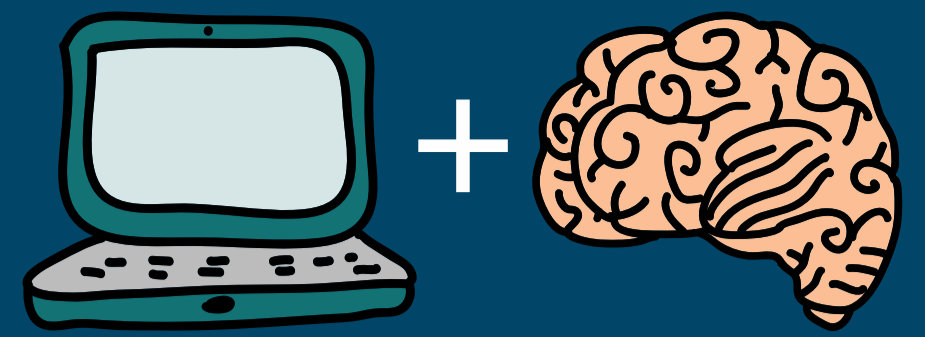


Computational Thinking



Define the problem so it can be solved computationally

Facebook turned finding friends and groups into a problem that could be **solved with a computer**.

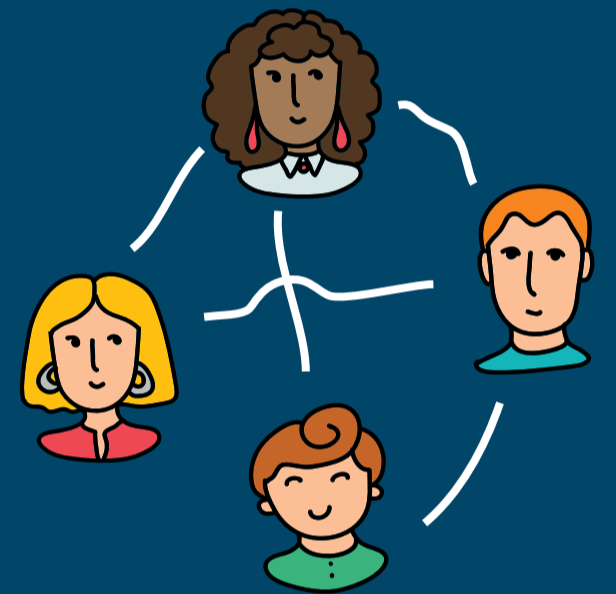


Collect and organise data systematically

Facebook collects and organises data about users and their friends and groups in a **consistent** way.

Represent data and identify abstractions

Facebook represents the world abstractly as a **graph** where users and groups are **nodes** and relationships are **edges**.

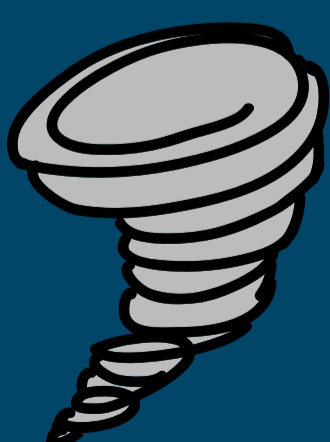
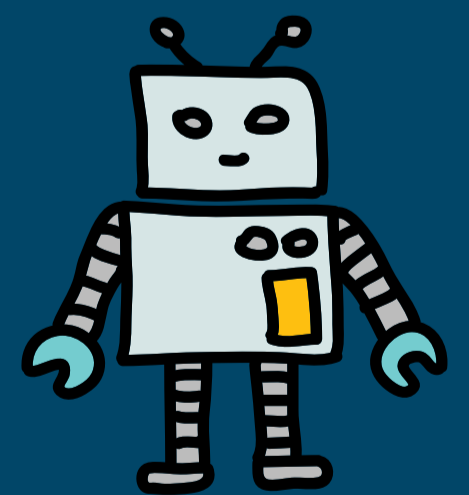


Generalise problems to identify algorithms

Facebook has **algorithms** to find or suggest friends, recognise faces, and predict what users will like.

Implement algorithms correctly and efficiently

Facebook handles billions of messages a day, so the **correctness** and **efficiency** of their code is critical.



Solve new problems with the same techniques

Facebook has open sourced some of their code, e.g. Tornado, for **use in other websites**.

