

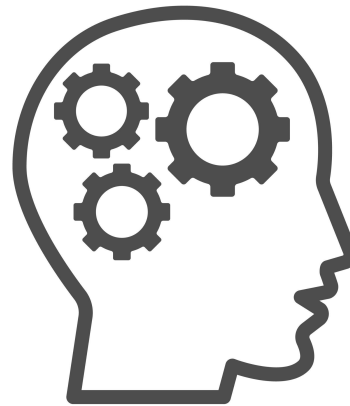
Thinking like a Computer Scientist.

A computer scientist tends to think in a very structured problem-solving way. They need to be good at knowing the best way to approach a problem by thinking about the following...

They need to break a problem down into smaller, manageable parts. Once each section is solved, then they will piece the whole problem back together.

They will look for patterns, asking questions like 'have I seen this before?' This lets them re-use and adapt other ideas.

They need to be able to identify and focus on the important details of any problem. For example, a map app wouldn't need to know about lamp posts and trees but on roads, distances and routes.



They will think about and create ideas by using clear step-by-step instructions (algorithms).

They tend to rely heavily on logical thinking. They use facts and clues to solve their problems rather than just guessing.

They need to ask 'what would happen if?' They need to test the limits of their program and check it can cope with unusual situations.

They need to constantly check if their idea is the 'best' solution? For example, can it be faster or use less memory?