SFU SIMON FRASER UNIVERSITY

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What the Hack: Variables | Episode 1 Challenge

Finish testing your knowledge? Take a look at some solutions to the challenges!

Challenge 1: Solving Problems

In this challenge, let's practice problem-solving using what we learned today!

Remember, problem-solving is an essential skill, not only for computer scientists but also for everyday life.

When solving problems, we first need to define the problem, what is the issue? What are we trying to change or accomplish?

1. Come up with a problem that you have in mind, it can be something that you've encountered in the past, or something that you've seen other people facing. Define the problem with details, such as what is going on, what are we trying to solve. (for example, our problem in the video was that we are hungry, what we want to achieve / solve is to make ourselves stop being hungry!)

Secondly, we need to come up with different solutions. Many times, there is more than one way to approach and solve a problem, and coming up with multiple solutions for one problem could be helpful as backup plans when one of the solutions turns out to be not very effective at solving the problem.

2. Brainstorm to come up with more than 1 solution to the problem that you defined

Third, we will take a look at the ways of solving the problem that we proposed, and implement them to try and see if they work!

3. Try a solution that you proposed in step 2 on the problem

After we implement the solution, we will be able to see whether our proposed solution actually solves the problem or not! If this proposed solution isn't successful at solving the problem, then we can go back to the second step, and take another approach to solving this problem. If this proposed solution is successful at solving the problem, then we can develop an algorithm from this solution, and we can follow this algorithm if we encounter the same problem in the future!

4. See if what you tried in step 3 solves the problem! If no, repeat the third step, if yes, then develop an algorithm for solving this problem (i.e. writing the detailed

steps of solving this problem down)