

Problem-Solving

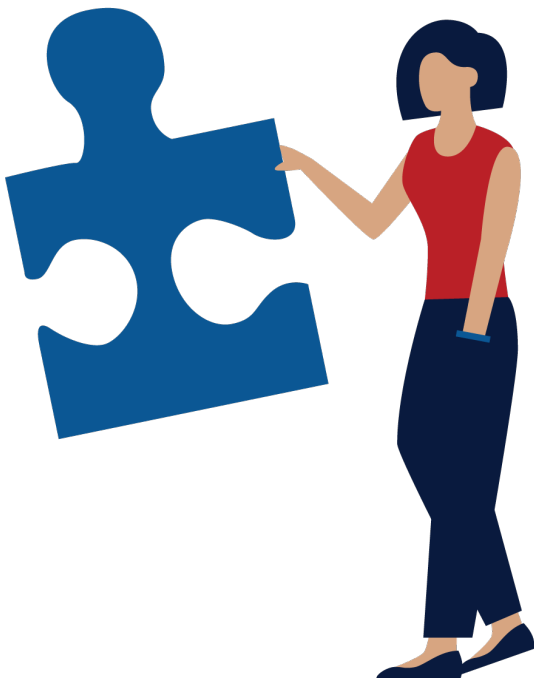
by Devmountain Tutorials



WHAT'S COVERED

This section will explore problem-solving by discussing:

1. WHAT IS PROBLEM-SOLVING?
2. WHAT DOES PROBLEM-SOLVING LOOK LIKE IN THE WORKPLACE?



1. WHAT IS PROBLEM-SOLVING?

"A problem is a chance for you to do your best."

text-align: right;>Duke Ellington, Composer and Pianist

We all solve problems every day, even when we don't realize that's what we're doing. *How can I avoid traffic? What should I have for lunch that isn't too expensive? How can I work well with a difficult coworker?* The problems in our personal and professional lives come in all shapes and sizes. But learning to understand and solve the big and small

problems we encounter can help us succeed at home, work, and school.

Imagine you're at a job interview. Your potential employer asks you to solve a puzzle. *Why? How does this question help them assess a candidate's strengths?*

Asking job candidates to explain how they would solve a puzzle, or a logic problem is a frequent interview topic, especially in the IT industry, because it helps hiring managers to understand how their future employees would be **problem-solving** in the workplace.

Problem-solving is an essential skill for any career because no matter what type of job you do, you're sure to encounter obstacles every day—whether that's negotiating contracts, dealing with demanding customers, or meeting tight deadlines.

When you have a well-developed problem-solving skill, it shows that you're logical, creative, resilient, imaginative, determined, and that you work hard to get the job done. Understanding how to practice (and talk about) your problem-solving skill will set you up to meet everyday challenges in the workforce and beyond.



Whenever you practice your problem-solving skill at home, work, and school, there are several strategies you should keep in mind:

- There is no one-size-fits-all approach to every problem.
- Just as every problem is unique, so is every solution.
- Problems can have more than one solution. Don't be afraid to think about familiar problems in new ways or to consider a variety of solutions to one specific problem.
- Don't wait to be told which problems to solve! (Use your initiative skill to identify problems that need solving.)
- Work with others who can offer insights and perspectives that you don't have. (Using your relationship building skill will help you develop your problem-solving skill.)
- Test commonly held assumptions. Often, the things everyone "just knows" to be true end up being false.
- Remember who you're solving the problem for. If it's a problem that customers are having and the solution only improves matters for your boss, you may want to rethink your approach.



Problem-Solving

The ability to identify and frame problems, explore ideas, and create effective, ethical, and evidence-based solutions.

2. WHAT DOES PROBLEM-SOLVING LOOK LIKE IN THE WORKPLACE?

Not surprisingly, being an effective problem solver will help you grow your career, as most modern jobs require you to find solutions to a never-ending series of complications. In one study, over 96% of employers identified critical thinking/problem-solving as an essential competency for new hires. People who get easily flustered or repeatedly try the same tired techniques to solve new problems will have a tougher time advancing, as they won't be seen as creative thinkers. On the other hand, employees with a well-developed problem-solving skill will simplify complex issues, find ways to be more efficient, and help save their company money. It's much more likely that those people will be hired and promoted (National Association of Colleges and Employers, 1).

No matter what career you pursue in your future of work, practicing problem-solving will help you make the impossible, possible. To develop your problem-solving skill, observe how others (such as your friends, family, or coworkers) tackle issues. Pay attention to their strategies and see what you can learn from them. You may have to try several techniques before finding a method that works best for you.

Outside of work, try your hand at other activities that involve problem-solving, such as playing chess, solving puzzles, or tackling brain teasers. These games will help you exercise your mind and discover new tactics for solving all kinds of problems.

<figure><figcaption>Solving Puzzles</figcaption>
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The IT industry is notorious for our love of puzzles. Thinking like a software engineer is essentially a framework for problem-solving. This is a big part of what you will do working in IT. Part of what makes problem-solving so valuable is that practicing this skill lets you find the root cause of an issue so you can approach it effectively.

➦ **EXAMPLE** At Poodle Jumper, the problem-solving process starts by making sure we understand the problem. How do we know it's a problem? Is there one problem, or five? Can it be solved? Why is it a problem? We ask "why" a lot to get to the root cause. When the problem identification is complete, that is when you can start thinking about solutions and how to take those big ideas and break them into testable steps—this is where your next skill, innovation, will come in handy.

"One thing is sure. We have to do something. We have to do the best we know how at the moment....If it doesn't turn out right, we can modify it as we go along."

text-align: right;>-Franklin D. Roosevelt, 32nd President of the United States</div>

Source: National Association of Colleges and Employers. (2014). Career Readiness Competencies: Employer Survey Results. Retrieved from <https://www.nacweb.org/career-readiness/competencies/career-readiness-competencies-employer-survey-results/>



TERMS TO KNOW

Problem-Solving

The ability to identify and frame problems, explore ideas, and create effective, ethical, and evidence-based solutions.