

Programming Technique II – SCJ1023

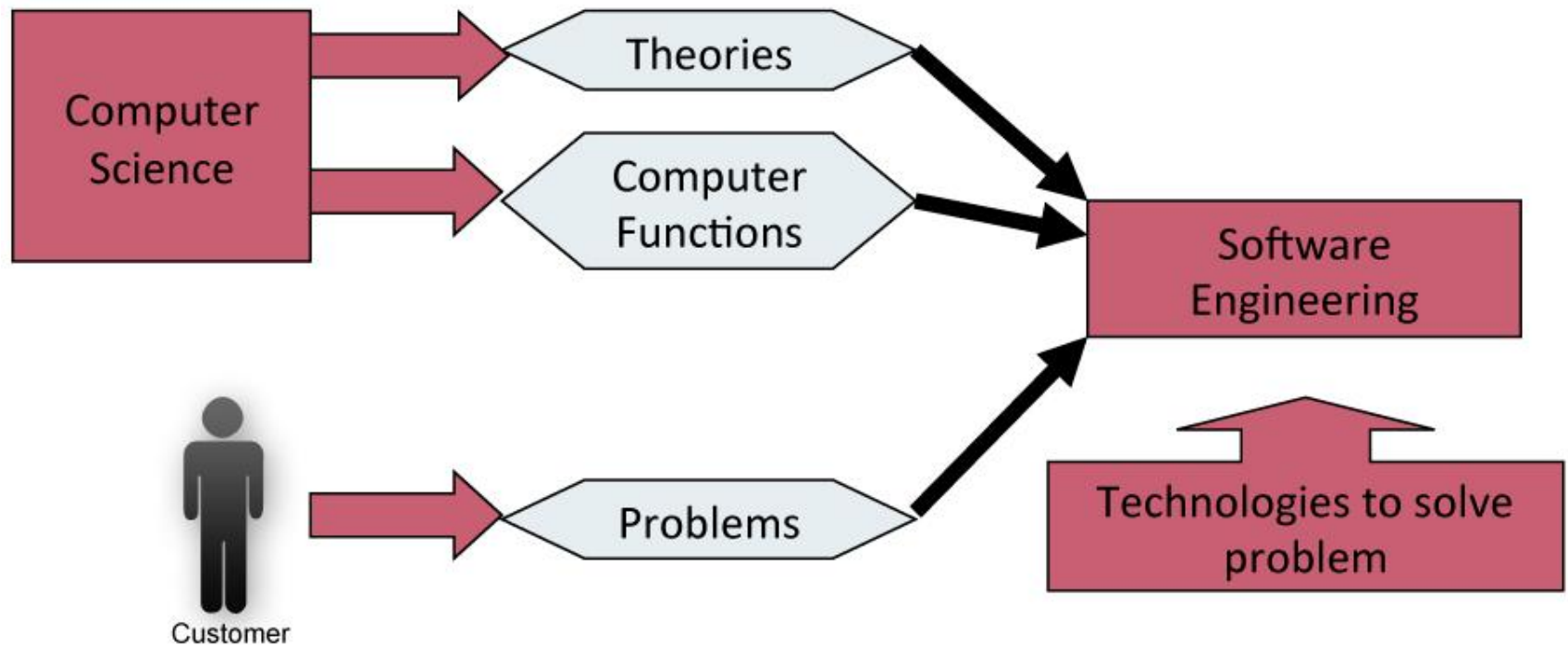
Software Engineering Principles in software development

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What is Software Engineering?

- Software Engineering (SE) involves design, develop and document of software by applying technologies & practices from other fields.

Relationship of Software Engineering and Computer Science



What is Problem Solving?

- The process of identifying a **problem** and developing a computer code to **solve** the problem.
- Software engineers and software developers are the people responsible to solve programming problems by using the **software development method**.

What is a solution?

- Consists of 2 components:
 1. Algorithms
 2. ways to store data
- **Algorithm** is a specification that is done step-by-step to solve a problem.
- An algorithm often performs on actions that operate on a collection of **data**.

Quality of solution

- Correctness of the solution
- Efficiency
- Effectiveness
- Ease of Use
- Cost of modifying and expanding it

The system development method

- System Requirements phase
- Analysis phase
- Design phase
- Coding phase
- Testing phase
- Maintenance phase