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Introduction to Programming

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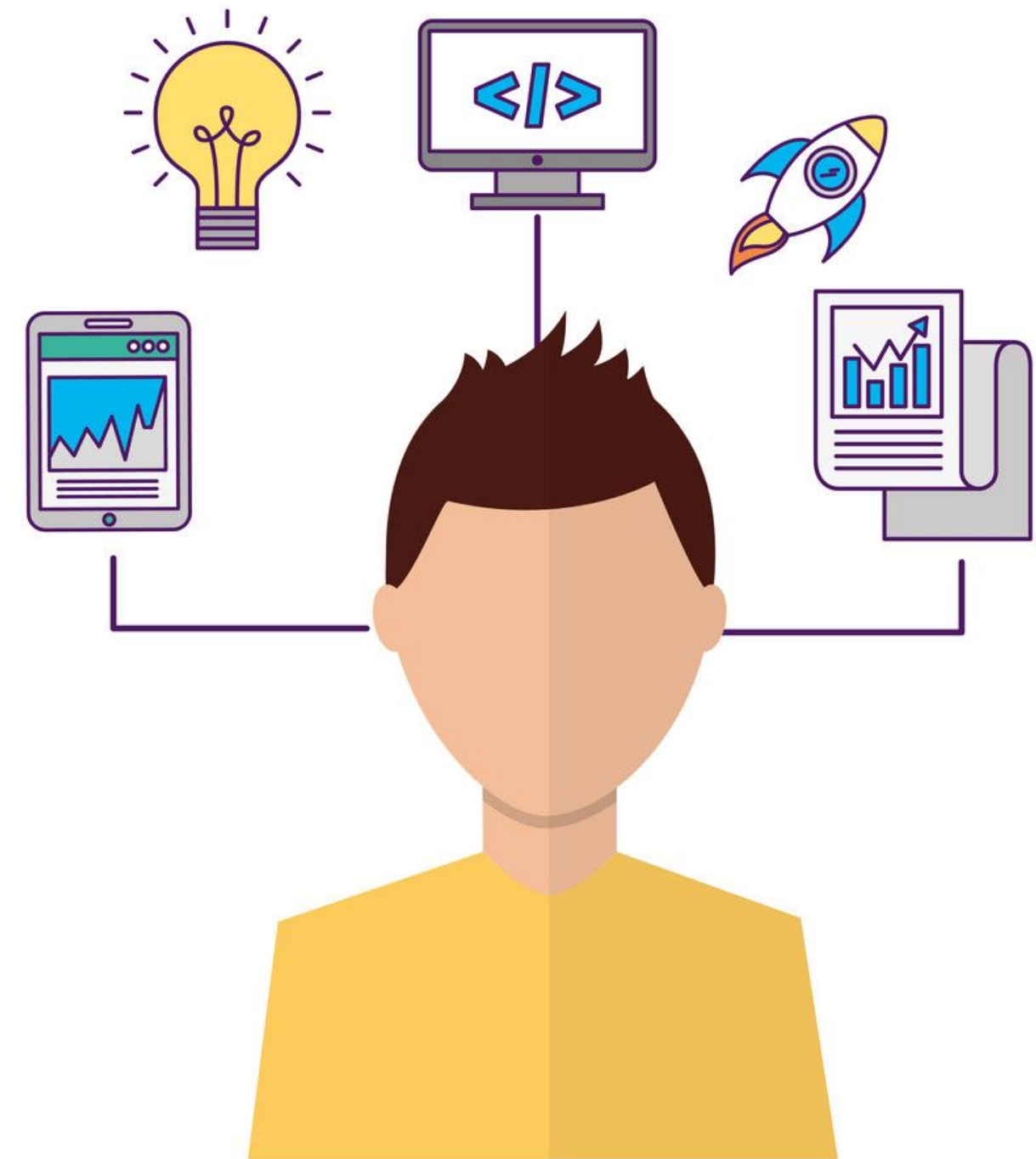
CSA101 : Problem Solving with Programming

What is Programming ?



Definition :

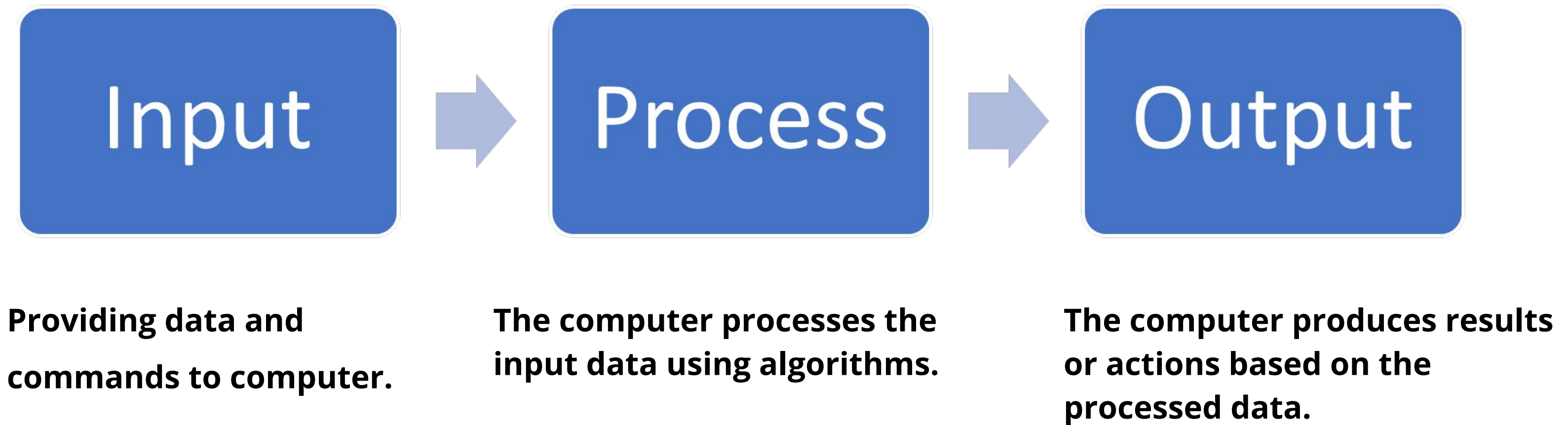
Programming is the **process of creating instructions** for computers to perform specific tasks.



Programming Analogy :



Programming Analogy :



Example : Making a cup of Coffee



Example : Making a cup of Coffee

Input: Adding coffee grounds and water into a coffee machine.



Example : Making a cup of Coffee

Process: The coffee machine brewing the coffee.



Example : Making a cup of Coffee

Output: A freshly brewed cup of coffee being poured into a mug.



Example : Making a cup of Coffee

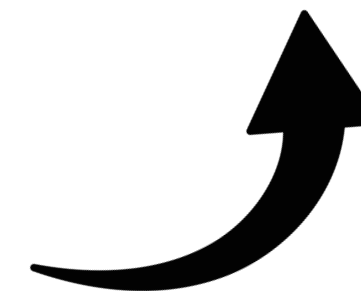
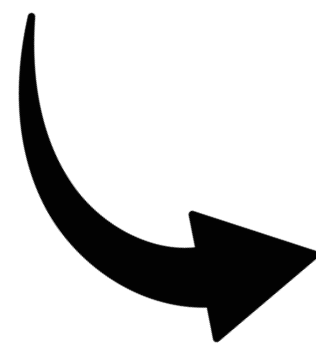
Input



Output



Process



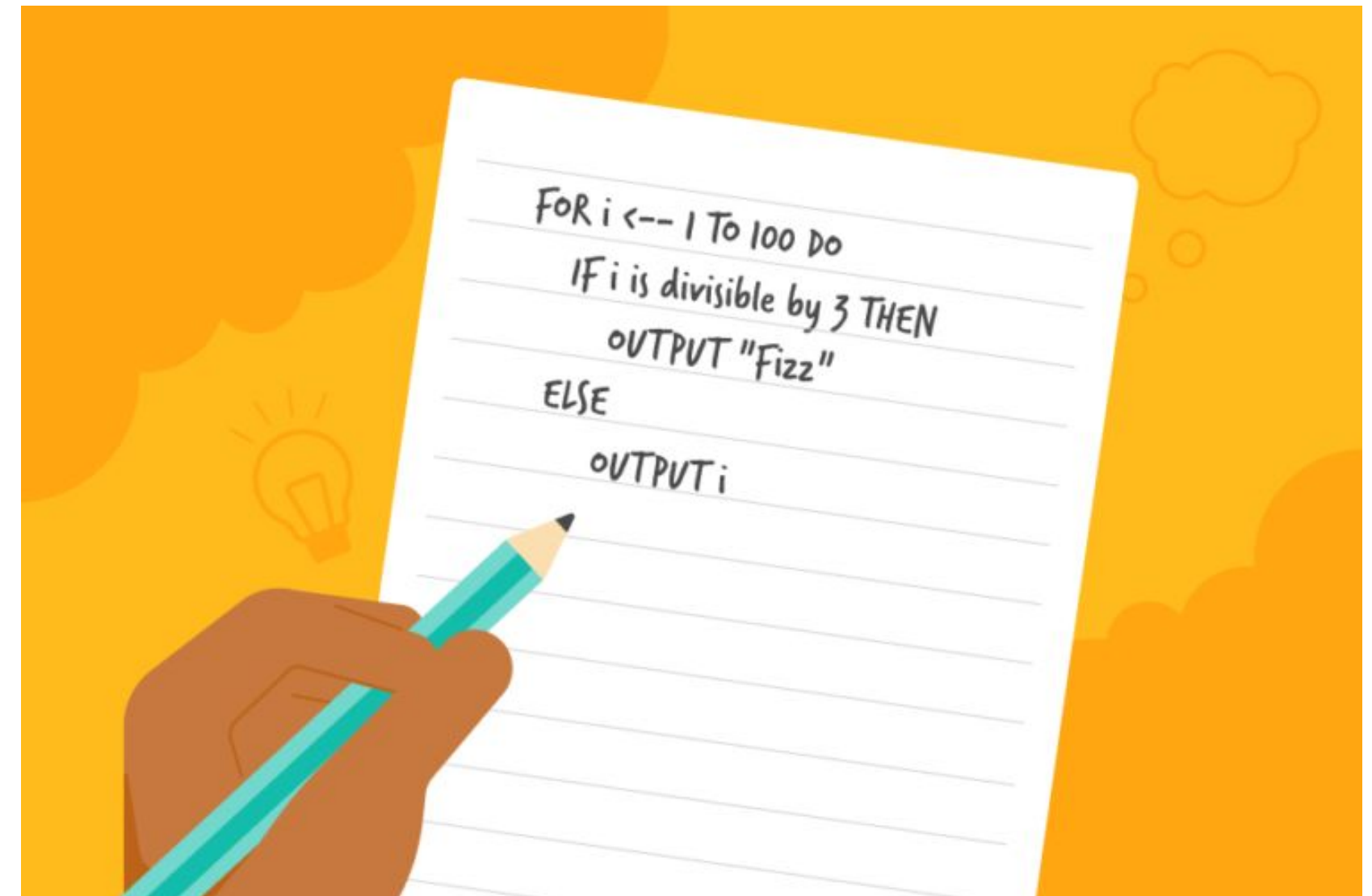
Pseudocode in Programming

What is Pseudocode ?



Pseudocode :

Pseudocode is a simplified, plain-language description of the **steps in a program**, used to plan and communicate ideas before writing actual code.

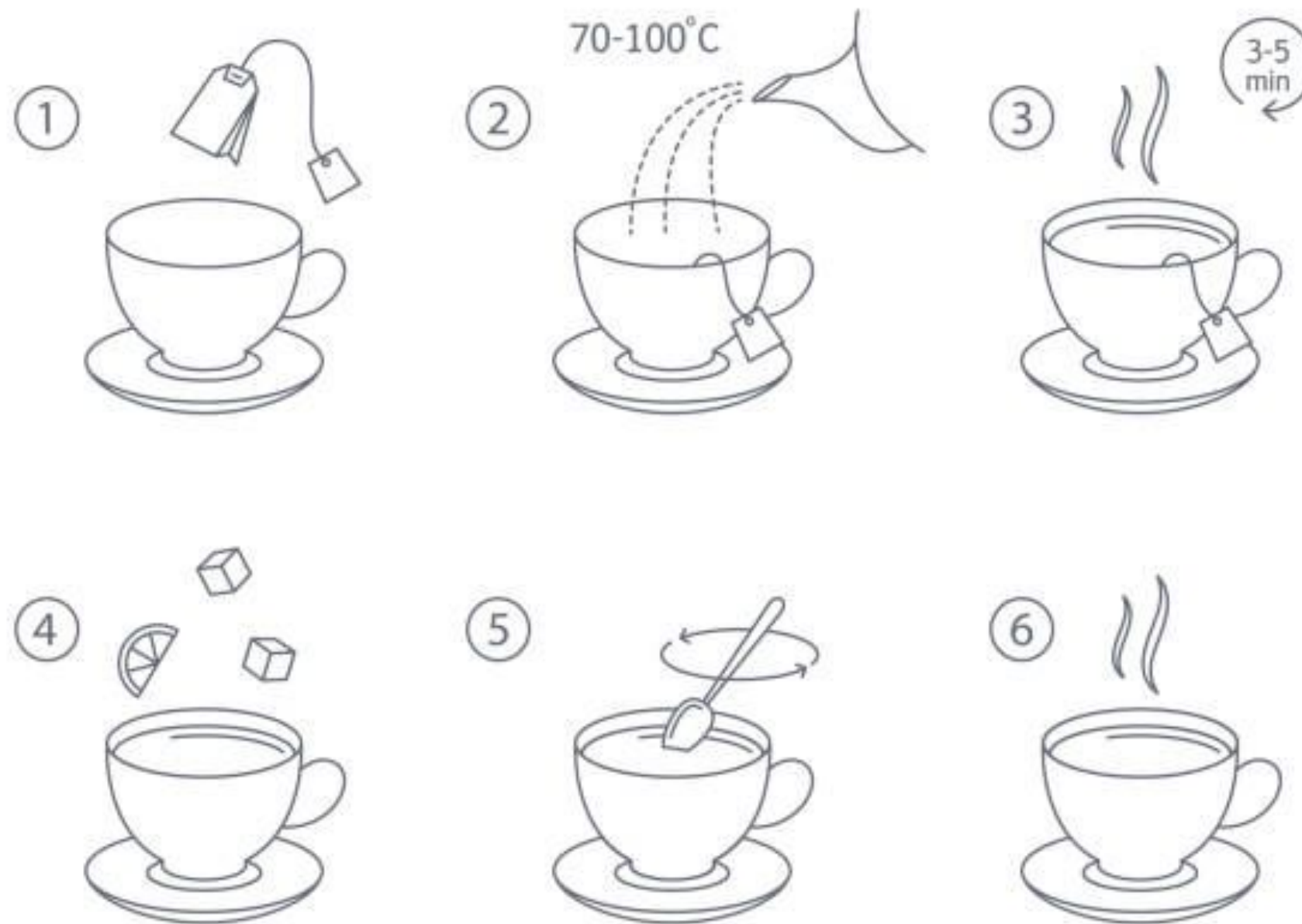


Classroom Activity

Let's make coffee :)

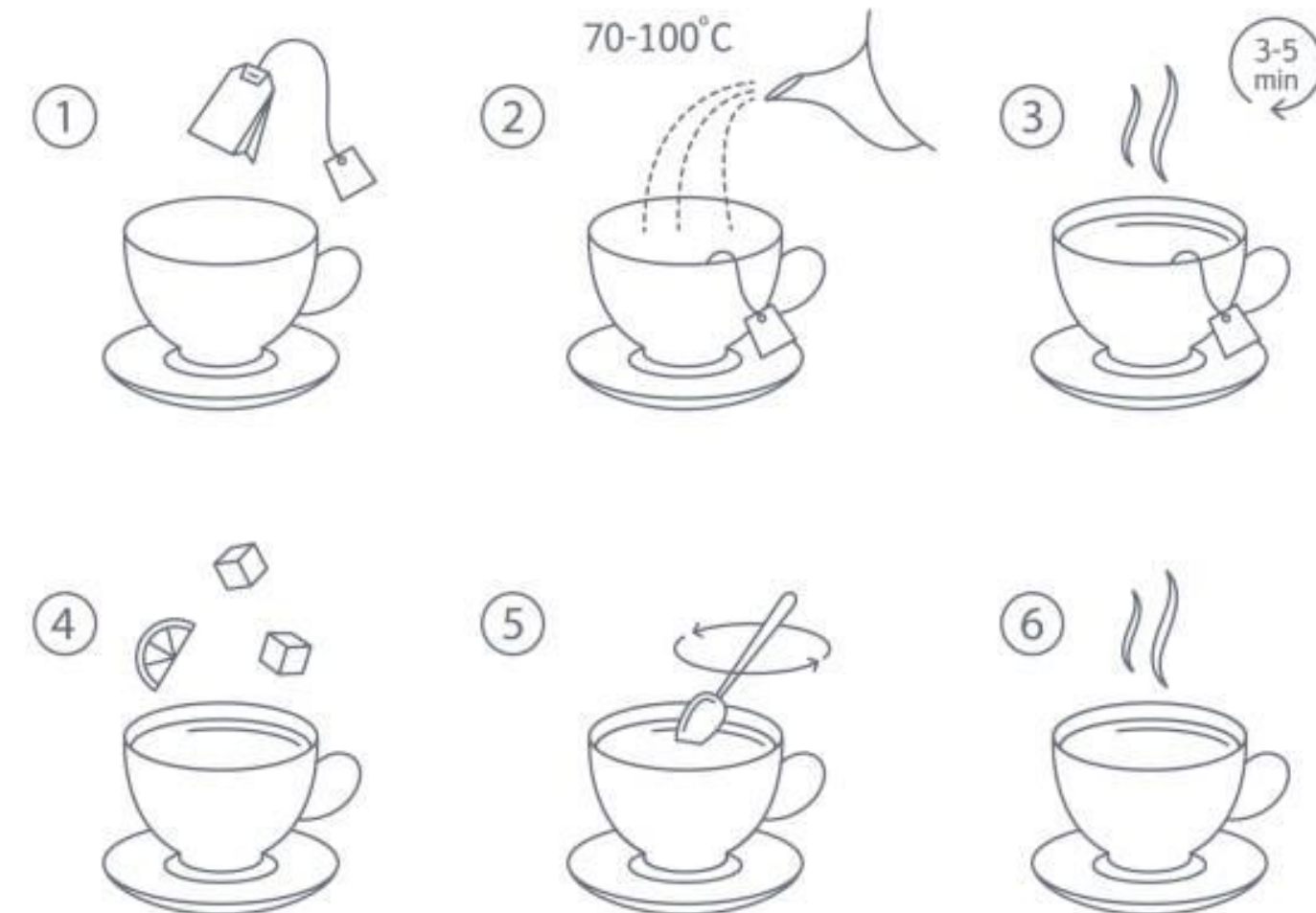


Steps for making a cup of Coffee :



Steps for making a cup of Coffee :

1. Start
2. Boil water
3. Add coffee bag to cup
4. Pour boiling water into cup
5. Decide: Do you want to add milk?
 - Yes: Add milk
 - No: Skip to next step
6. Stir the coffee
7. End





Game Time!

Tortoise Water Game

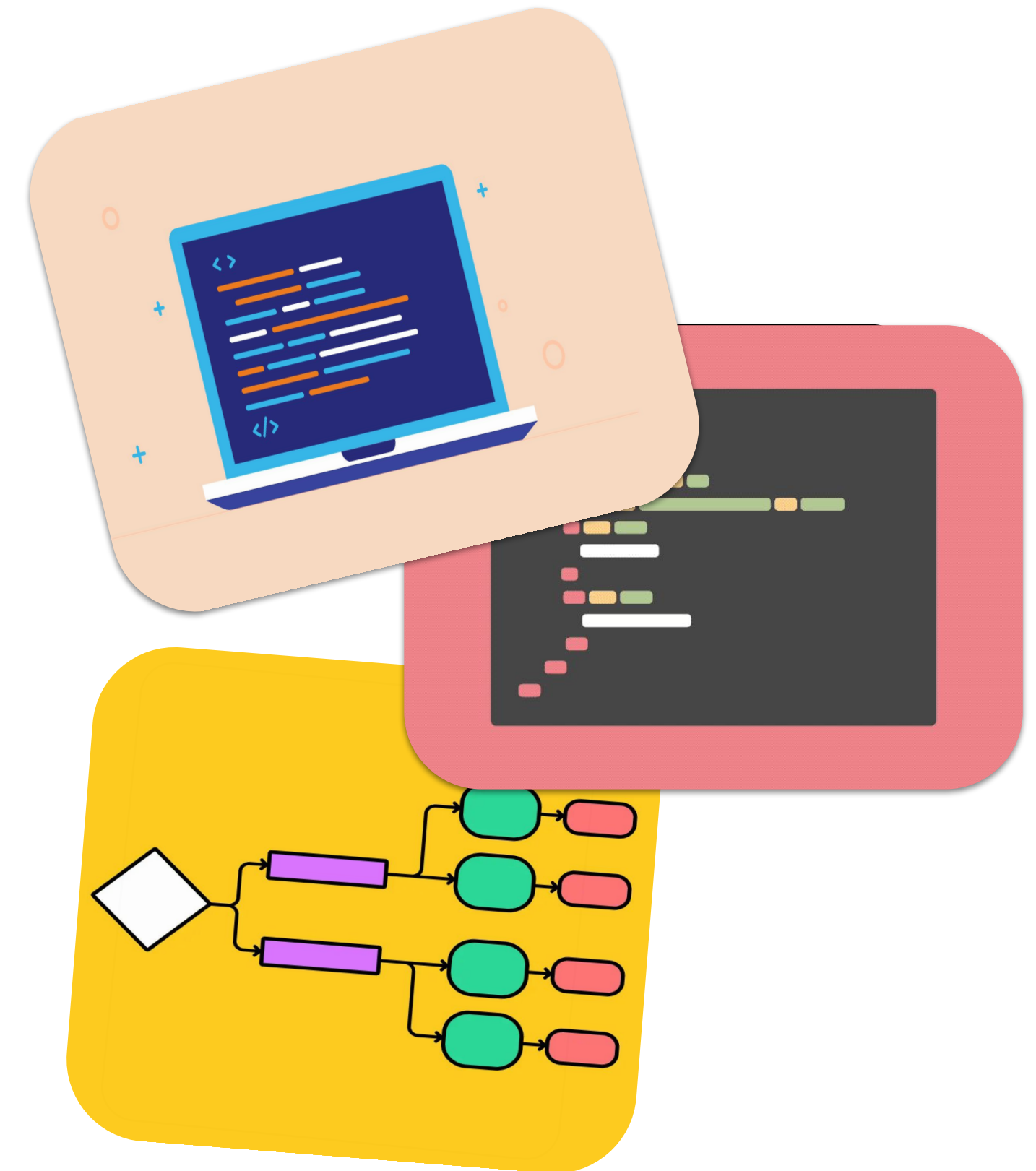


Boat to the Shore



Summary

- **Programming** - Instructions for computers to perform specific tasks.
- **Pseudocode** - Plain-language description of the steps in a program





Thank You!