visual programming

Validation

Bachelor of Information Systems
Institut Teknologi Del

Learning Objective(s)

This material should address the following question(s).

- What is validation?
- How to do validation?

Discussion Point

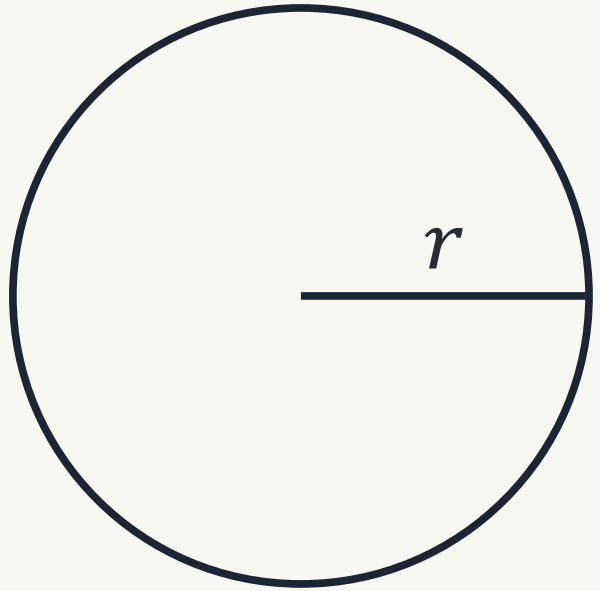
Validation:
The Core Concepts.

Problem

- To calculate the circumference of a circle, we use formula:

$$C = 2\pi r$$

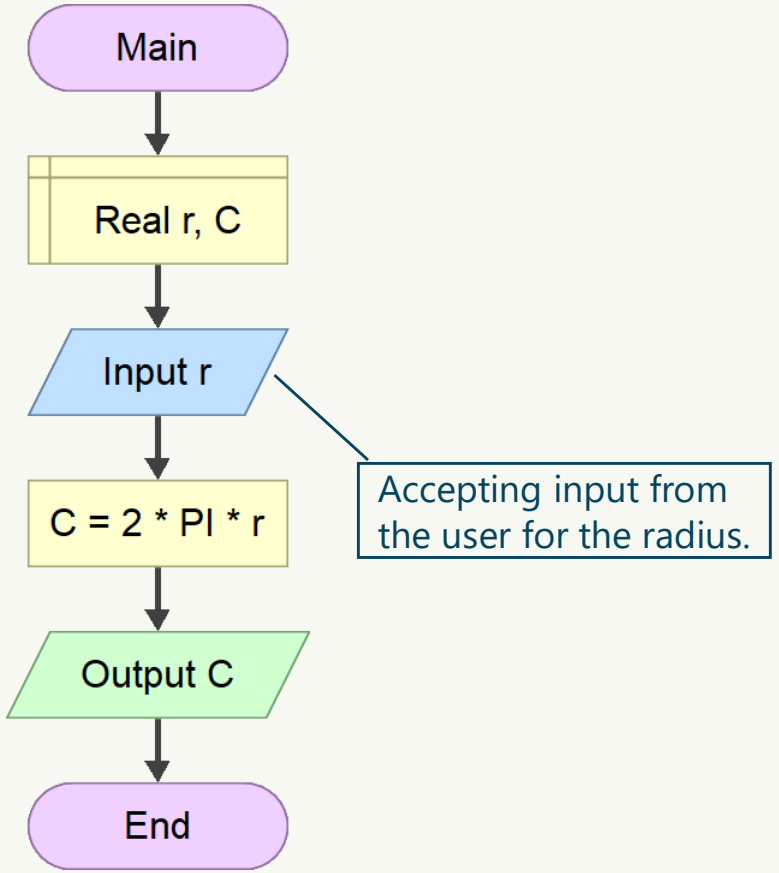
  - π is a constant, `3.14`
  - r is the circle radius.
  - C is the circumference.



Problem

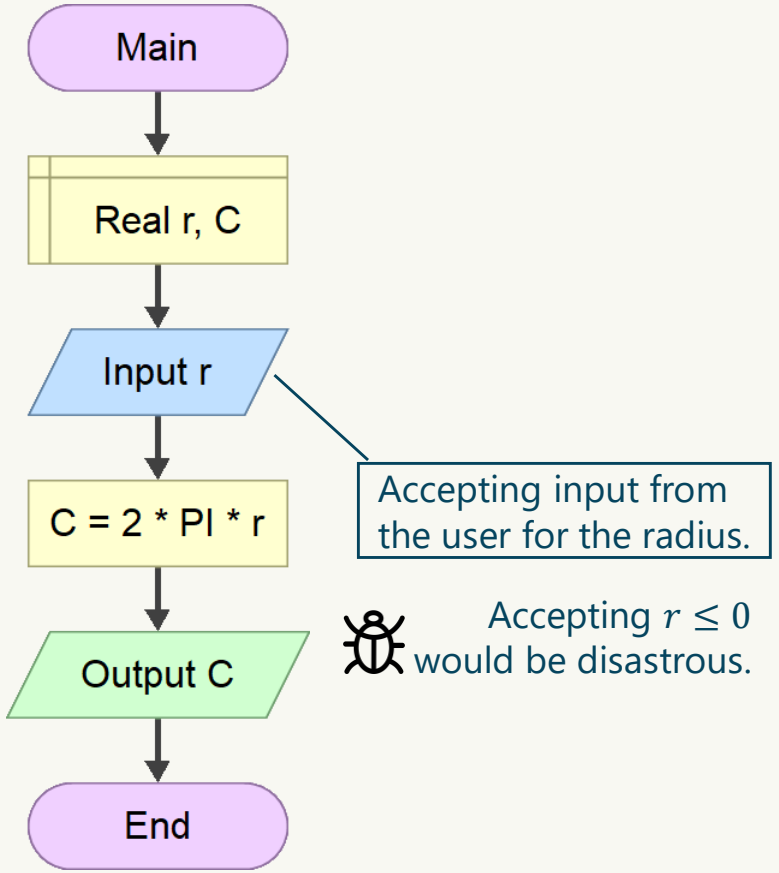
- The solution asks an input from the user for the radius.

$$C = 2\pi r$$



Problem

- The solution asks an input from the user for the radius.
- What if, the user enters $r \leq 0$.
  - `0`, `-5`, `-10`?



Problem

User input **cannot** be trusted.

How to prevent such things?

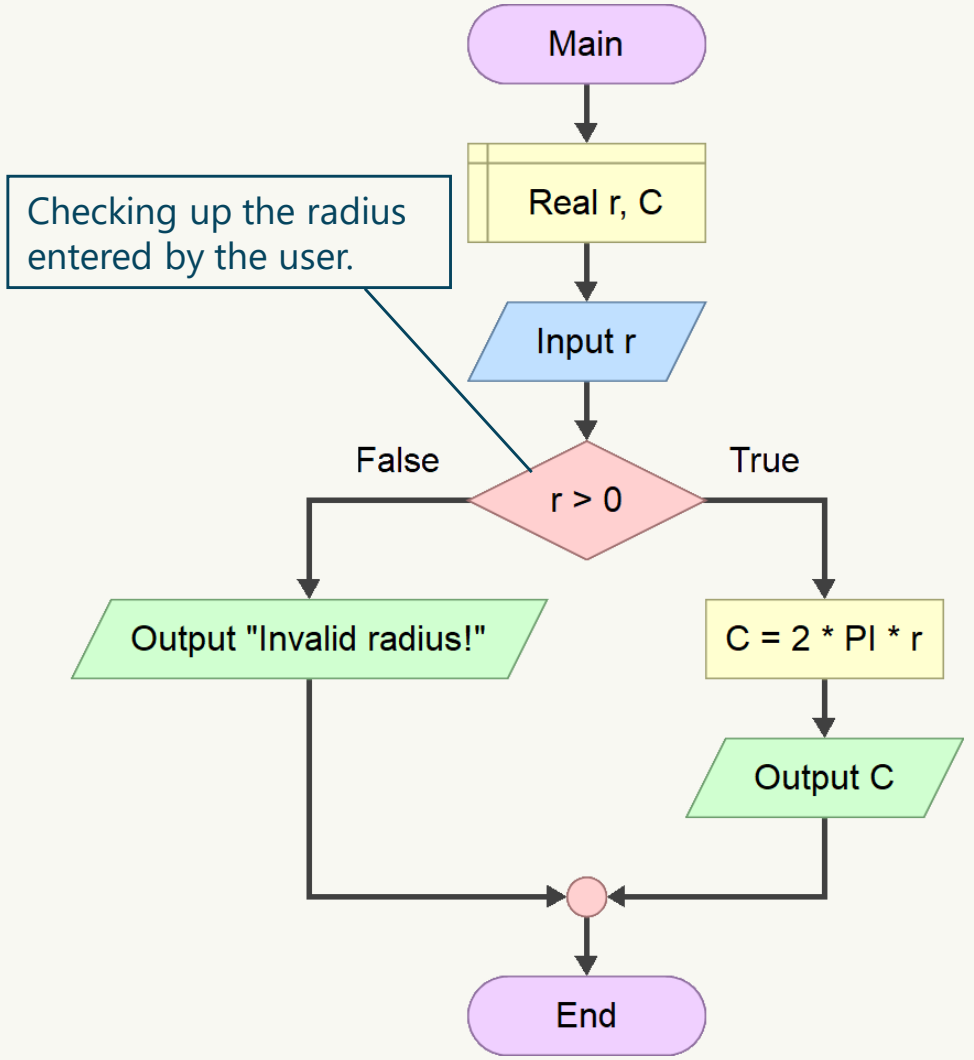
Definition

Validation is a mechanism to check the validity of values.

When the checking fails, the intended process should be halted and not proceed.

Validation

- To validate input, it is very common to use branching.
- In sophisticated languages, `Exception` is employed.



Final **Thoughts.**

Conclusion

1. Do not trust values entered by the user.
   - They might be dangerous to the solution.
2. Validating user input is a way to prevent invalid values.
   - Branching is the most basic way to validate input.

References

Wassberg, J. (2020). Computer Programming for Absolute Beginners. Packt.

– E O F –

Course Lecturer

Mario E. S. Simaremare
Institut Teknologi Del

@simaremare
@dasar-pemrograman

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