



Curtin University

What is Programming?

ISYS5002, School of Marketing and Management

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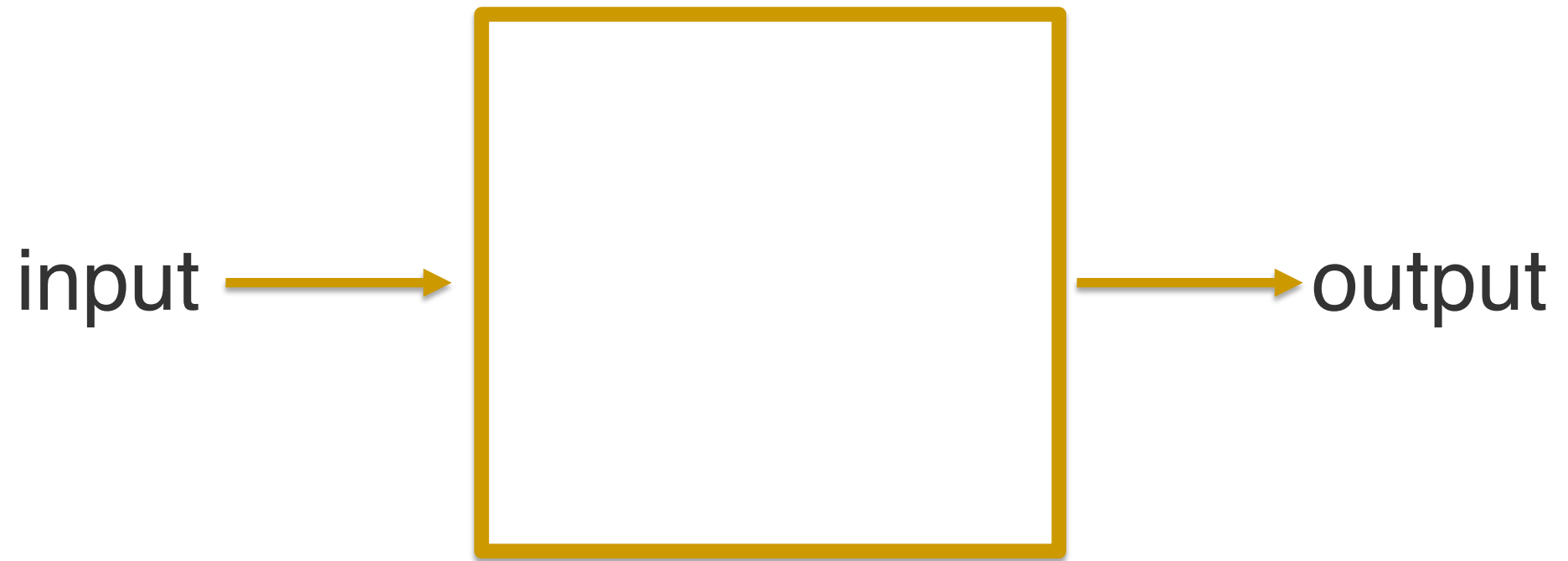
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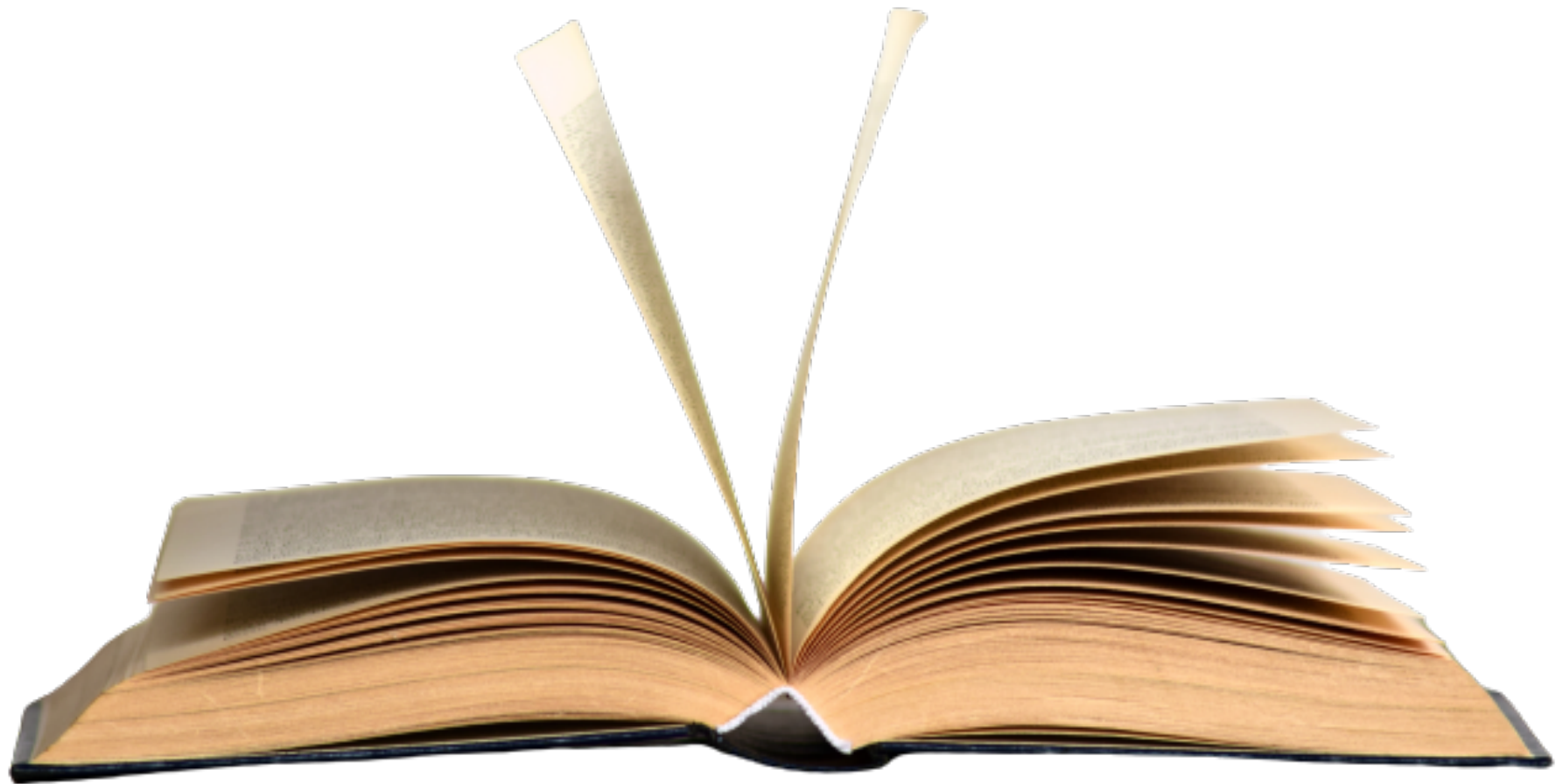


I acknowledge the traditional custodians of the land on which I work and live, and recognise their continuing connection to land, water and community. I pay respect to elders past, present and emerging.





algorithms



ISYSS5002 – What is Programming?

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Is this algorithm, turning the pages, step by step, looking for the definition of “Programming” correct?



Instead of looking for the definition one page at a time, lets do two, four, six, eight, pages at a time. It it is faster. Is this algorithm correct?

Pseudocode

The following example is inspired from Harvard's CS50x OpenCourseWare, see <https://cs50.harvard.edu/x/2021/weeks/0/>

Pseudocode

Pick up dictionary

Open to middle of dictionary

Look at page

If word is on page

 Read definition

Else if word is earlier in book

 Open to middle of left half of book

 Go back to line 3

Else if word is later in book

 Open to middle of right half of book

 Go back to line 3

Else

 Quit



Functions

Pick up dictionary

Open to middle of dictionary

Look at page

If word is on page

Read definition

Else if word is earlier in book

Open to middle of left half of book

Go back to line 3

Else if word is later in book

Open to middle of right half of book

Go back to line 3

Else

Quit

Selection

Pick up dictionary

Open to middle of dictionary

Look at page

If word is on page

read definition

Else if word is earlier in book

Open to middle of left half of book

Go back to line 3

Else if word is later in book

Open to middle of right half of book

Go back to line 3

Else

Quit

Boolean Expressions

Pick up dictionary

Open to middle of dictionary

Look at page

If **word is on page**

 read definition

Else if **word is earlier in book**

 Open to middle of left half of book

 Go back to line 3

Else if **word is later in book**

 Open to middle of right half of book

 Go back to line 3

Else

 Quit



Loops

Pick up dictionary

Open to middle of dictionary

Look at page

If word is on page

 read definition

Else if word is earlier in book

 Open to middle of left half of book

Go back to line 3

Else if word is later in book

 Open to middle of right half of book

Go back to line 3

Else

 Quit

Fundamentals

- Functions
- Conditions
- Boolean expressions
- Loops