

Anti Pattern

Team 5 Pattern Panda
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System and Users

- System
 - Scratch like blocks for building regular expressions
- Users
 - College professor - may be familiar with regex or not
 - High school teachers - may be familiar with regex or not

UI Demonstration: Blockly Canvas

PatternDB Tutorial

The image shows a Blockly Canvas interface for building a regular expression. The blocks are arranged vertically in the following order:

- Expression:** A green block with a tab on the left.
- Text:** A blue block with a tab on the left.
- Include a-z A-Z 0-9:** A purple block with three checkboxes for 'a-z', 'A-Z', and '0-9', all of which are checked.
- Exclude a-z A-Z 0-9:** A green block with three checkboxes for 'a-z', 'A-Z', and '0-9', all of which are checked.
- Ran Incl From To:** A green block with two input fields for 'From' and 'To'.
- Include Whitespace s cr:** A brown block with three checkboxes for 's', 'r', and 'c', all of which are checked.
- Or:** A large purple block with a tab on the left.
- Repeat 0 to Infinity times:** A yellow-green block with a 'Repeat' field set to '0' and a 'times' field set to 'Infinity'.
- Anything:** A blue block with a tab on the left.

On the right side of the canvas, there is a vertical toolbar with the following icons from top to bottom:

- A target icon.
- A plus sign icon.
- A minus sign icon.
- A trash can icon.

Generated String:

Instruction: Block Types

Expression: 

Block for start of an expression

Text: 

Block for matching a string exactly as entered

Include a-z A-Z 0-9

Block for matching exactly 1 character that satisfies the checked criteria

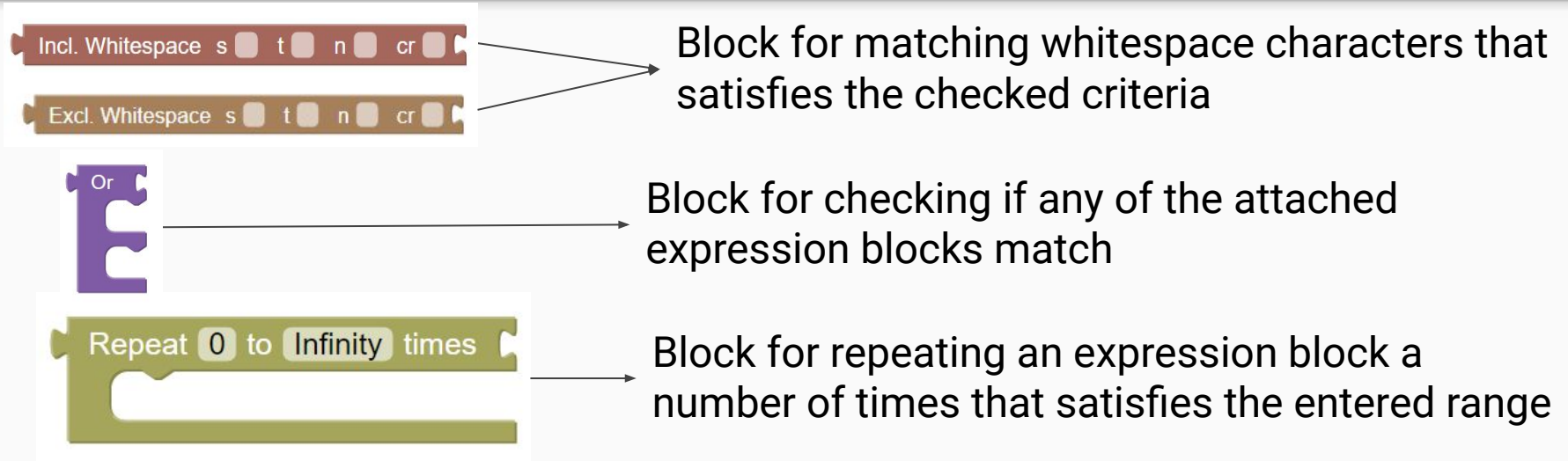
Exclude a-z A-Z 0-9

Range Incl. From To

Block for matching exactly 1 character that satisfies the entered range

Range Excl. From To

Instruction: Block Types



Instruction: Using the App

- Users may connect any numbers of blocks to create the regular expression they desire.
- Users enter test cases and select whether they expect a test to pass or fail.
- When satisfied, the user can generate the regex for their own use.

Potential Usability Concerns

- Regex blocks may become too long to fit on canvas or too small to read if zoomed out too much
- Users unfamiliar with regular expressions may have a steep learning curve
 - A strong tutorial is required
 - Possibly require multiple forms of tutorial

Project Progress

Finished:

- Most of the regex blocks
- Regex generation from the blocks

Plan to Finish:

- User defined test cases
- Polished tutorial page
- Error handling warnings
- Tooltips