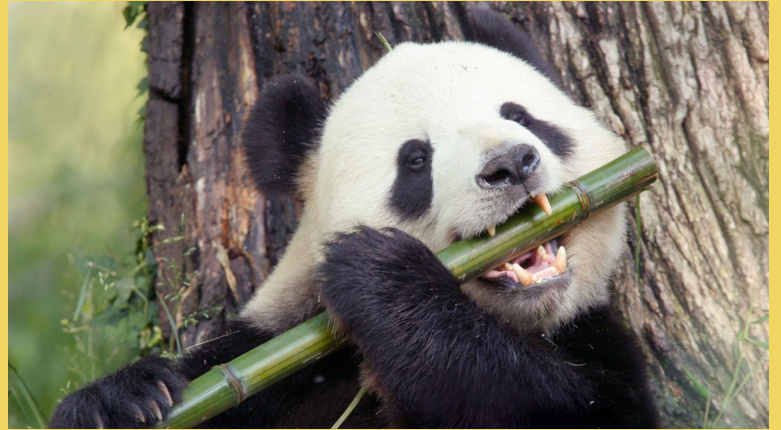


# Anti Pattern

Team 5 Pattern Panda  
02/07/2023

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# User Stakeholders and Environment

Users:

- College professor - may be familiar with regex or not
- High school teachers - may be familiar with regex or not

Environment:

Users will be using the app on web browser in either research or classroom environment.

# Use Scenario Persona

Name: Dr. X

Age: 35

Residence: Michigan Tech (Houghton, MI)

Job: Adjunct professor in College of Computing

Goal: Using the app to create antipatterns

# Nominal Use Scenario

# Use Scenario Step One: Logging In

**PatternDB**

Tutorial

Login



**Michigan Tech**

Username

Password

Dr. X starts by logging in with his Michigan Tech SSO credentials.

# Use Scenario Step Two: Regex Creation Page

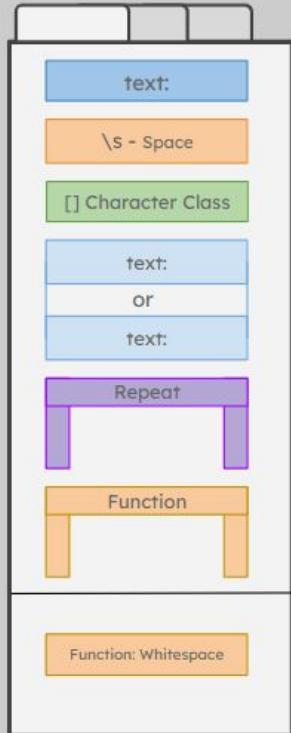
PatternDB

Tutorial

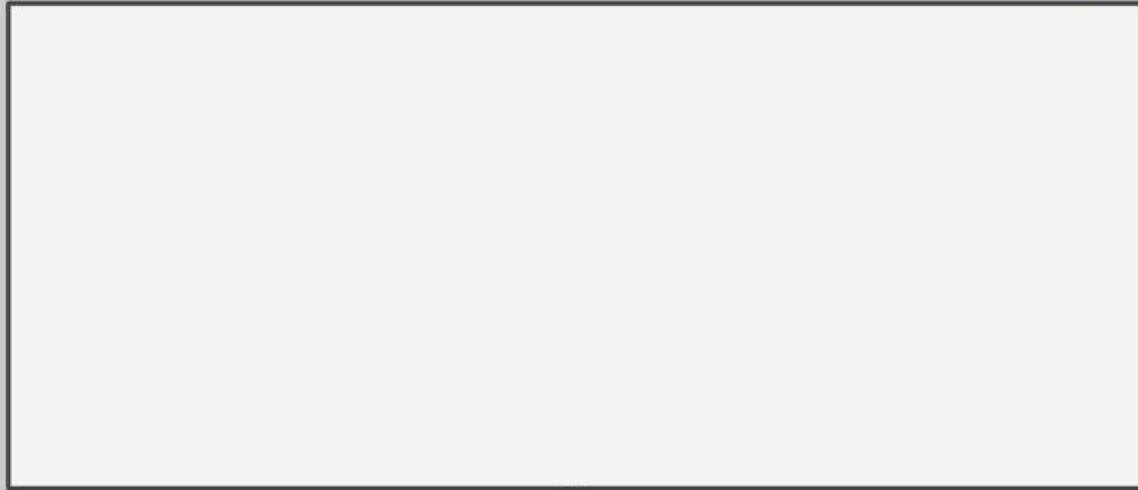
User12345

Advanced

Export



A vertical palette of regex building blocks. At the top are three small grey tabs. Below them are several colored boxes: a blue box labeled 'text:', an orange box labeled '\S - Space', a green box labeled '[] Character Class', a blue box labeled 'text:', a white box labeled 'or', another blue box labeled 'text:', a purple box labeled 'Repeat' with a table-like structure, an orange box labeled 'Function' with a table-like structure, and finally an orange box labeled 'Function: Whitespace'.



A large, empty rectangular area for creating or editing a regular expression.

Test Cases	Expected	Actual

Dr. X lands on the creation page.

# Use Scenario Step Three: Creating Test Cases

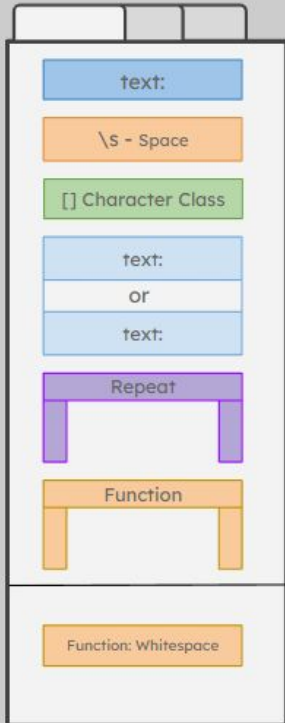
PatternDB

Tutorial

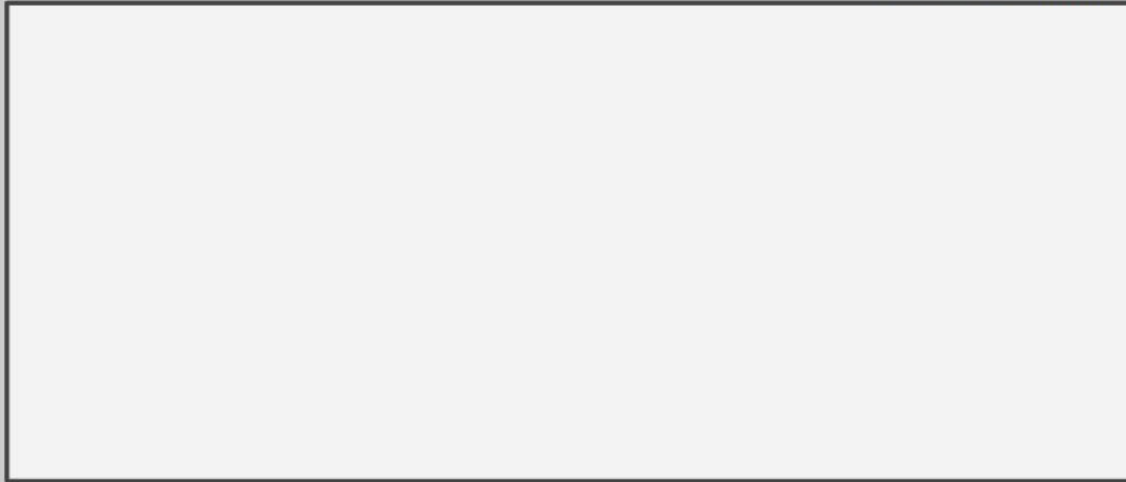
User12345

Advanced

Export



A sidebar for the PatternDB pattern editor. It contains several components: three small grey boxes at the top; a blue box labeled 'text:'; an orange box labeled '\S - Space'; a green box labeled '[] Character Class'; a blue box labeled 'text:' followed by a white box labeled 'or' and another blue box labeled 'text:'. Below these is a purple 'Repeat' structure with two vertical bars. Next is an orange 'Function' structure with two vertical bars. At the bottom is an orange box labeled 'Function: Whitespace'.



A large, empty rectangular area for editing patterns, currently blank.

Test Cases	Expected	Actual
import java.*;	✓	
import java.util.*;	✓	
import java.math.*;	✓	
import java.util.Scanner;	X	

Dr. X enters positive and negative test cases.

# Use Scenario Step Four: Creating RegEx With Blocks

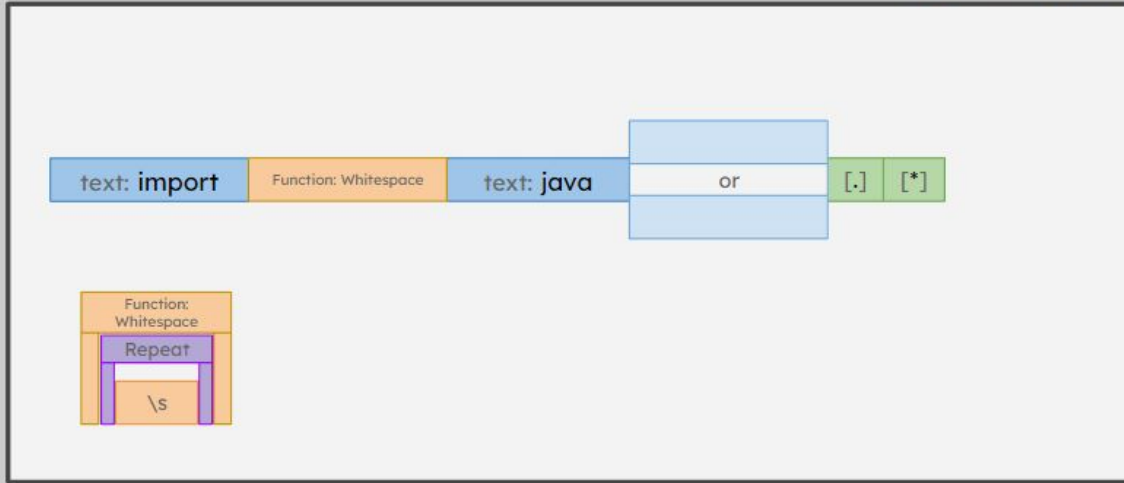
PatternDB

Tutorial

User12345

Advanced

Export



Test Cases	Expected	Actual
import java.*;	✓	
import java.util.*;	✓	
import java.math.*;	✓	
import java.util.Scanner;	X	

Dr. X builds his RegEx with given blocks within the app.



# Use Scenario Step Five: Test Cases Display Success or Failure

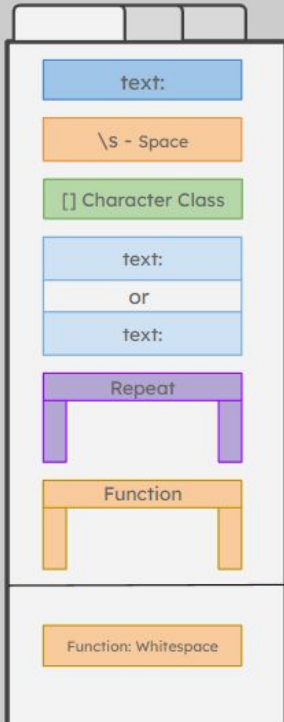
PatternDB

Tutorial

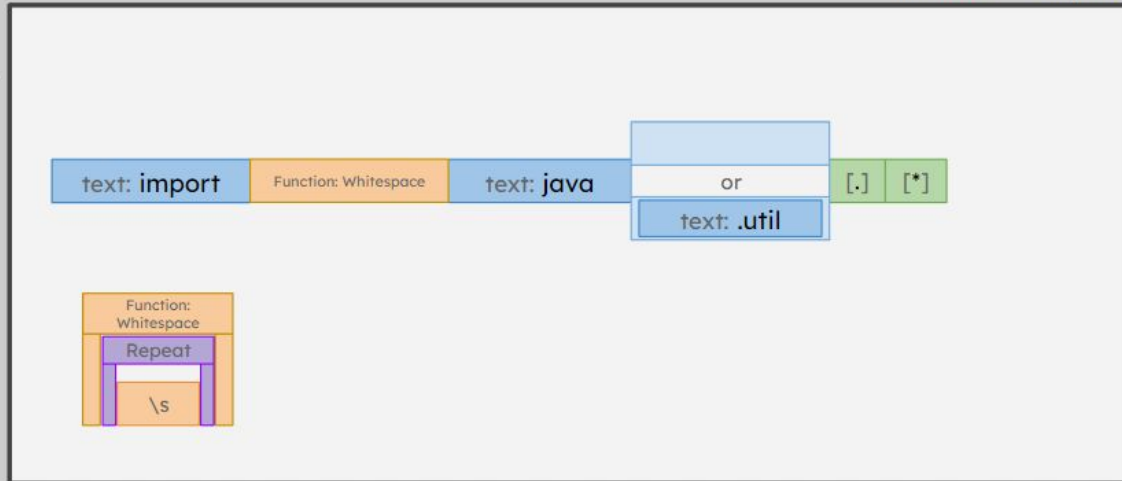
User12345

Advanced

Export



A vertical palette of components for building a query. It includes: 'text:' (blue box), '\s - Space' (orange box), '[] Character Class' (green box), 'text:' (blue box), 'or' (white box), 'text:' (blue box), 'Repeat' (purple box), 'Function' (orange box), and 'Function: Whitespace' (orange box).



Test Cases	Expected	Actual
import java.*;	✓	✓
import java.util.*;	✓	✓
import java.math.*;	✓	X
import java.util.Scanner;	X	X

The app returns the actual result of the test cases.

# Error Handling Use Scenario

# Error Handling Use Scenario

Dr. X accidentally disconnected a set of blocks from the full regular expression. Because the app is made to construct one regular expression, it does not match either set of blocks against the test cases. To alert them of the issue, the regex creation canvas border is colored red. This creates visual feedback that does not impose during the normal construction process.

# Error Handling Use Scenario: Invalid RegEx Format

PatternDB

Tutorial

User12345

Advanced

Export

- text:
- \s - Space
- [] Character Class
- text:
- or
- text:
- Repeat
- Function
- Function: Whitespace



Test Cases	Expected	Actual
<code>import java.*;</code>	✓	
<code>import java.util.*;</code>	✓	
<code>import java.math.*;</code>	✓	
<code>import java.util.Scanner;</code>	X	

Dr. X accidentally disconnected a set of blocks from the full regular expression.

# Error Handling Use Scenario: Error Alert

PatternDB

Tutorial

User12345

Advanced

Export

A vertical sidebar menu containing several icons for building a regex pattern. From top to bottom: a blue box labeled 'text:', an orange box labeled '\s - Space', a green box labeled '[] Character Class', a blue box labeled 'text:', a white box labeled 'or', another blue box labeled 'text:', a purple box labeled 'Repeat' with a bracket-like structure, an orange box labeled 'Function' with a bracket-like structure, and finally an orange box labeled 'Function: Whitespace'.

The main canvas shows a partial regex construction: 'text: import' followed by 'Function: Whitespace' and 'text: java'. To the right, there is an 'or' block containing 'text: .util'. Further right are two green boxes containing '[' and ']' characters. A red border highlights the entire canvas area.

Test Cases	Expected	Actual
import java.*;	✓	
import java.util.*;	✓	
import java.math.*;	✓	
import java.util.Scanner;	X	

The regex creation canvas border is colored red for visual feedback.

# Usability Goals and Concerns

## Usability Challenges:

- Ensure the tutorial is well-presented and helpful under limited time
- Maintain clear labeling on blocks

## Concerns:

- App may not support all regex flavors or programming languages
- Blocks may overflow the screen horizontally