

CS5760: Usability Testing Plan

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Test Scenario 1

Scenario Description

This scenario consists of five trials for the participant to complete. The trials will get more and more difficult. Each trial will consist of a vague instruction to create a simple or complex regular expression.

Trials

1. Literal String

Instruction:

Use a Text Block to generate a regex string to capture the literal string of "Apple".

Expected Solution:



2. String that starts with 'a'

Instruction:

Generate a regex to capture any string that starts with 'a'.

Expected Solution:

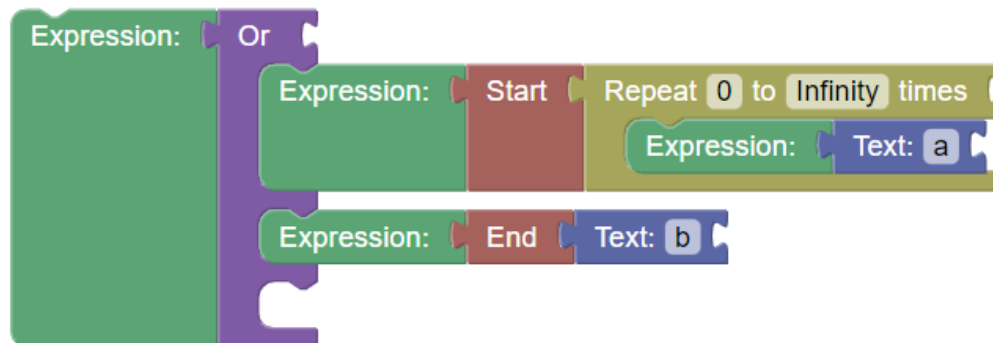


3. String that starts with any number of 'a' or ends with 'b'

Instruction:

Generate a regex to capture any string that starts any number of 'a' or ends with 'b'.

Expected Solution:

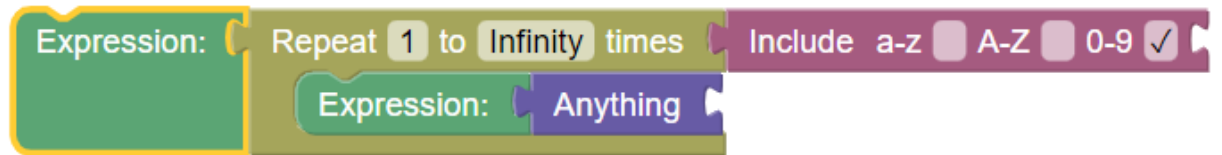


4. String that includes a number after the first character

Instruction:

Generate a regex to capture strings that include a number somewhere after the first character.

Expected Solution:



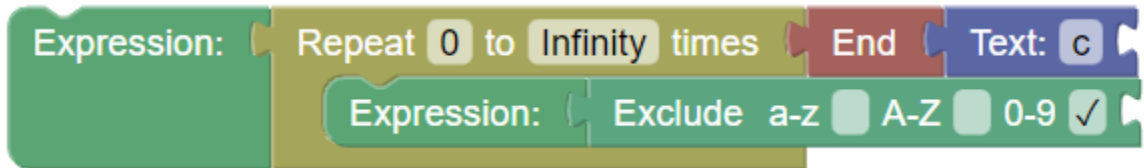
A Scratch-style block for generating a regex. It consists of several connected segments: a green 'Expression:' block, a yellow 'Repeat 1 to Infinity times' block, a purple 'Include' block with checkboxes for 'a-z', 'A-Z', and '0-9' (the '0-9' checkbox is checked), and a blue 'Expression: Anything' block.

5. String that ends with 'c' and contains no numbers

Instruction:

Generate a regex to capture any string that starts with 'a'.

Expected Solution:



A Scratch-style block for generating a regex. It consists of several connected segments: a green 'Expression:' block, a yellow 'Repeat 0 to Infinity times' block, a red 'End' block, a blue 'Text: c' block, and a green 'Exclude' block with checkboxes for 'a-z', 'A-Z', and '0-9' (the '0-9' checkbox is checked).

Test Scenario 2

Scenario Description

This scenario consists of five trials for the participant to complete. Each trial will consist of a vague instruction to create a simple or complex regular expression.

Trials

The trials have the same content and instructions as Test Scenario 1 (see previous 2 pages). However, the order in which the trials are administered are randomized. This means that each participant who gets Test Scenario 2 may have a different order than the other participants who get Scenario 2.

Goals

These first goals are the same for both scenarios.

1. Determine how easy the interface is to understand - Progressively harder scenarios should provide a strong metric.
2. Identify major issues with the prototype to be altered for the next iteration.
3. Understand how users can navigate the app without the existence of a tutorial.

Test Scenario 2

1. This scenario has the additional goal to see whether or not the order of “progressively more difficult” has an impact on the user’s learning experience.

Software/Equipment Required

It is the same for both test scenarios.

1. A laptop/computer with internet capabilities
2. Zoom (application) with screen-record capabilities
3. Access to the web application

Quantitative Measurements

Test Scenarios

1. Time to complete test scenarios
2. Number of resets on test scenarios
3. Number of test scenarios completed
4. Number of unnecessary blocks
5. Number of glances at the tutorial
6. Number of sighs
7. Number of complaints

Questionnaire

1. Likert scale questions
 - a. Levels of difficulty
2. What class year are you?

Task List

1. Participant reads the vague instructions for the first trial.
2. Participant experiments with blocks until they get what they think is the correct combination.
3. Participant declares they are done with that trial.
4. This process repeats for all five trials.

Post-Interview Questionnaire

Post test questions (given after the all the trials are completed):

1. Please indicate your level of agreement to the follow statement:

Overall, this application was easy to perform each task.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

2. Please indicate your level of agreement to the follow statement:

I enjoy using this application.

1. Very much
2. A little bit
3. Neutral
4. Not very much
5. Not at all

3. Please indicate your level of agreement to the follow statement:

I would use this application again.

1. Strongly agree

2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

4. Please indicate your level of agreement to the follow statement:

The text on the application was easy to read.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

5. Please indicate your level of agreement to the follow statement:

The tutorial was helpful in understanding the application

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

6. How did the tasks make you feel?

7. What was the most frustrating part?

8. What did you feel was the easiest part of the test?

9. What class year are you?

Test Set-Up Details

1. A computer with access to the web application
2. Set-up Zoom and screen record
3. Paper/pencil materials printed and ready for administration.