RascalTests
TestSoftwareEvolution

Name RascalTests/TestSoftwareEvolution

Description This test assesses basic Rascal skills. In each exercise you have to select a choice or fill in a text field. Push the **Give answer** button when you have completed your answer.

When you make an error, you can push the **I want another question** button for a similar question (if available). You can repeat this until you have the right answer or you give up.

You pass when you have more than 60% of the questions right.

Pitfalls This assessment software is still experimental; please bear with us and take the following into account:

- Answers are not recorded: show at the end of the session all your answers to the instructor.
- *Do not go to another page of the tutor since all your answers will be erased* (precaution: record your answers yourself)
- Always push the **Give answer** button when you are ready (a newline in the text box will not work).

  Be aware: in the web version, there are no questions visible: use the Eclipse version instead

Questions

Question [1]. ✓ ... More kudos Sets can be used to represent a sequence of values when
○ The values have duplicates.
● The values have no duplicates and no order.
○ The values are unordered.

Give answer I want another question

Question [2]. ✓ The type of a list is determined by:
○ The upperbound of the type of two arbitrary elements.
○ The type of the first element that was first added to the list.
● The upperbound of the type of all elements.

Give answer I want another question

Question [3]. ✓
The type of `{"Prune"}` is set[str]

Give answer I want another question

Question [4]. ✓ ... The whole moon and the entire sky are reflected in one dewdrop on the grass.
The type of `[9, -13, 15, -7]` is list[int]

Give answer I want another question

Question [5]. ✓
The type of `("Raspberry": false, "C-3PO": true)` is map[str,bool]

Give answer I want another question

Question [6]. ✓ ... Go on like this!
The type of `{-19,` 2,15 `}` is `set[int]`

Give answer I want another question

Question [7]. ✓ ... A journey of a thousand miles begins with a single step.
The type of `("Darth Sidious":` 2 `)` is `map[str,int]`

Give answer I want another question

Question [8]. ✓
The type of `{-6, 17, 13, 2, -5}` is set[int]

Give answer I want another question

Question [9]. ✓ ... Another one down!
The type of `{-16, "Countess Darling Von Darling", -16}` is
set[value]

Give answer I want another question

Question [10]. ✓
The type of `{<"J", -19, |file:///home/paulk/pico.trm|(0,1,<2,3>,<4,5>)>}` is
rel[str,int,loc]

Give answer I want another question

Question [11]. ✓
The type of `{<3, -12>}` is rel[int,int]

Give answer I want another question

Question [12]. ✓ Determine the number of elements in a list
Given

```
import List;
text = ["abc", "def", "ghi"];
```

```
size (text) == 3;
```

Give answer I want another question

Question [13]. ✓ Determine the number of strings that contain "a".
Fill in

```
text = ["andra", "moi", "ennepe", "Mousa", "polutropon"];
public int count(list[str] text){
  n = 0;
  for(s <- text)
    if(/.*a.*/ := s)
      n +=1;
  return n;
}
```

and make the following true:

```
count(text) == 2;
```

Give answer I want another question

Question [14]. ✓ Return the strings that contain "o".
Fill in

```
text = ["andra", "moi", "ennepe", "Mousa", "polutropon"];
public list[str] find(list[str] text){
  return
    for(s <- text)
      if(/o/ := s)
        append s ;
}
```

and make the following true:

```
find(text) == ["moi", "Mousa", "polutropon"];
```

Give answer I want another question

Question [15]. ✓ Complete this function that finds duplicates in a list of strings
Fill in

```
text = ["the", "jaws", "that", "bite", "the", "claws", "that", "catch"];
public list[str] duplicates(list[str] text){
    m = {};
    return
      for(s <- text)
        if({*str x, s, *str y} := m                    )
           append s;
        else
           m += s;
}
```

and make the following true:

```
duplicates(text) == ["the", "that"];
```

Give answer

I want another question

Question [16]. ✓ Complete this function that tests that a list of words forms a palindrome. A palindrome is a word that is symmetrical
Fill in

```
import List;
public bool isPalindrome(list[str] words){
  return words == reverse(words)                   ;
}
```

and make the following true:

```
isPalindrome(["a", "b", "b", "a"]) == true;
```

Give answer

I want another question

[**Edit**] | [**New Subconcept**] | [**Recompile Course**] | [**Warnings**]

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Rascal/Libraries/analysis/m3/Core/containment
2 comments • 3 years ago•
Jurgen Vinju — I think there is perhaps a confusion of terms, but I am not sure. Here's an explanation that may help.* Containment is about things you can declare which are

Test/CallAnalysis
3 comments • 3 years ago•
Jurgen Vinju — I think this is because this is the Test course that we have online for playing around with the tutor itself. The file is just missing. I would recommend the other courses :-)

Rascal/Expressions/Values/ListRelation
2 comments • 4 years ago•
rascalmpl — Copy and paste victim, list relations are relatively new, I wouldn't expect this level of trick questions in the test tomorrow.

Rascal/Libraries/Prelude/ListRelation/index
1 comment • 4 years ago•
Cigdem Aytekin — The output in this page is an error message, probably more imports are needed for example to run: like import List?

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