Online Test 1, Question 4

Due on 2021-03-09, 12:00 IST

Question 4

A list is a decreasing if each element is strictly smaller than the preceding one. For instance `[]`, `[7]`, `[11,8]` and `[89,63,44,19,3]` are decreasing, while `[3,18,4]` and `[23,14,14,3]` are not. Here is a recursive function to check if a list is decreasing. You have to fill in the missing argument for the recursive call.

```
def decreasing(l):
  if l==[] or len(l) == 1:
    return(True)
  else:
    return(...)
```

Sample Test Cases

	Input	Output
Test Case 1	`decreasing([17,16])`	`True`
Test Case 2	`decreasing([-1,-2,-3])`	`True`
Test Case 3	`decreasing([83,59,44,44,23,19])`	`False`
Test Case 4	`decreasing([23,14,3,14,3,23])`	`False`
Test Case 5	`decreasing([11,8,7])`	`True`
Test Case 6	`decreasing([3,18,4])`	`False`

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```
def decreasing(l):
  if l==[] or len(l) == 1:
    return(True)
  else:
    return(
       # Complete the recursive call below this line
           l[0] > l[1] and decreasing(l[1:])
       # Complete the recursive call above this line
    )

import ast

def tolist(inp):
  inp = ast.literal_eval(inp)
  return(inp)

fncall = input()
lparen = fncall.find("(")
rparen = fncall.rfind(")")
fname = fncall[:lparen]
farg = fncall[lparen+1:rparen]

if fname == "decreasing":
  arg = tolist(farg)
  print(decreasing(arg))
```

- **Week 7: Classes, objects and user defined datatypes ()**
- **Week 7 Quiz ()**
- **Week 8: Dynamic programming, wrap-up ()**
- **Week 8 Programming Assignment ()**
- **Text Transcripts ()**
- **Books ()**
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- **Online Programming Test - Sample ()**
- **Online Programming Test 1, 01 Dec 2020, 10:00-12:00 ()**
- **Online Programming Test 2, 01 Dec 2020, 20:00-22:00 ()**
- **Online Programming Test 1, 09 Mar 2021, 10:00-12:00 ()**

- Online Test 1, Question 1 (/noc20_cs26/progassignment?name=148)
- Online Test 1, Question 2 (/noc20_cs26/progassignment?name=149)
- Online Test 1, Question 3 (/noc20_cs26/progassignment?name=151)
- **Online Test 1, Question 4 (/noc20_cs26/progassignment?name=152)**
- Online Test 1, Question 5 (/noc20_cs26/progassignment?name=155)
- Online Test 1, Question 6 (/noc20_cs26/progassignment?name=156)
- Online Test 1, Question 7 (/noc20_cs26/progassignment?name=157)
- Online Test 1, Question 8 (/noc20_cs26/progassignment?name=158)

Online Programming Test 2, 09 Mar 2021, 20:00-22:00 ()