

Zadanie: Indywidualne testowanie SPA przez poszczególnych studentów w Zespole – Iteracja 3

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Tablica testów pojedynczych relacji:

Relacja	Liczba testów
Follows	5
Follows*	5
Modifies	10
Next	5
Parent	5
Parent*	5
Uses	5

Tablica testów dwóch lub więcej relacji

Modifies + Uses	5
Follows + Parent	5
Uses + Parent	5
Follows + Uses	5

Kod programu SIMPLE:

```
procedure Circle {  
  t = 1;  
  a = t + 10;  
  d = t * a + 2;  
  call Triangle;  
  b = t + a;  
  call Hexagon;  
  b = t + a;  
  if t then {  
    k = a - d;  
    while c {  
      d = d + t;  
      c = d + 1; }  
    a = d + t; }  
  else {  
    a = d + t;  
    call Hexagon;  
    c = c - 1; }  
  call Rectangle; }  
  
procedure Rectangle {  
  while c {  
    t = d + 3 * a + c;  
    call Triangle;  
    c = c + 20; }  
  d = t; }  
  
procedure Triangle {  
  while d {  
    if t then {  
      d = t + 2; }  
    else {  
      a = t * a + d + k * b; }}  
  c = t + k + d; }  
  
procedure Hexagon {  
  t = a + t; }
```

Testy pojedynczych relacji:

```
while w;  
Select w such that Modifies (w,"d")  
10, 18, 23  
  
while w;  
Select w such that Modifies (w,"c")  
10, 18  
  
variable v;  
Select v such that Modifies (28,v)  
t  
  
variable v;  
Select v such that Modifies (3,v)  
d  
  
variable v;  
Select v such that Modifies (4,v)  
a, d, c  
  
variable v;  
Select v such that Modifies (6,v)  
t  
  
while w; variable v;  
Select w such that Modifies (w, v)  
18, 23, 10  
  
variable v;  
Select v such that Modifies (18,v)  
t, a, d, c  
  
variable v;  
Select v such that Modifies (24,v)  
a, d  
  
variable v;  
Select v such that Modifies (28,v)  
t  
  
stmt s;  
Select s such that Parent (s,10)  
8  
  
stmt s;  
Select s such that Parent (s,20)  
18  
  
stmt s;  
Select s such that Parent (s,11)  
10  
  
stmt s;  
Select s such that Parent (9,s)  
none  
  
stmt s;  
Select s such that Parent (s,2)  
none
```

```
while w;
Select w such that Parent* (w,9)
none

while w;
Select w such that Parent* (w,11)
10

while w;
Select w such that Parent* (w,13)
none

stmt s; while w;
Select w such that Parent* (s,11)
10, 18, 23

while w;
Select w such that Parent* (w,21)
18

stmt s;
Select s such that Follows (s,12)
11

stmt s;
Select s such that Follows (s,13)
10

stmt s;
Select s such that Follows (s,23)
none

assign a;
Select a such that Follows (a,8)
7

assign a;
Select a such that Follows (a,13)
none

t, a, d, b, k, c

variable v;
Select v such that Uses (23,v)
t, a, d, b, k

stmt s;
Select s such that Uses (s,"d")
4, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 23, 24, 26, 27

prog_line n2;
Select BOOLEAN such that Next (1,2)
true

prog_line n2;
Select BOOLEAN such that Next (6,8)
false

prog_line n2;
Select BOOLEAN such that Next (8,9)
```

```
true

prog_line n2;
Select BOOLEAN such that Next (12,10)
true

prog_line n2;
Select BOOLEAN such that Next (10,11)
true
stmt s;
Select s such that Follows* (s,1)
none

assign a;
Select a such that Follows* (a,10)
9

assign a;
Select a such that Follows* (a,12)
11

stmt s; while w;
Select w such that Follows* (w, s)
10, 18, 23

stmt s;
Select s such that Follows* (s,19)
none

stmt s;
Select s such that Uses (s,"c")
8, 10, 16, 17, 18, 19, 21

variable v;
Select v such that Uses (10,v)
t, d, c

variable v;
Select v such that Uses (18,v)
```

Testy dwóch lub więcej relacji:

```
assign a;  
Select a such that Modifies (a,"a") and Uses (a, "a")  
26
```

```
procedure p;  
Select p such that Modifies (p,"c") and Uses (p,"a")  
Rectangle, Triangle
```

```
assign a;  
Select a such that Modifies (a,"d") and Uses (a, "d")  
11
```

```
assign a;  
Select a such that Modifies (a,"c") and Uses (a, "c")  
16, 21
```

```
assign a;  
Select a such that Modifies (a,"b") and Uses (a, "b")  
none
```

```
stmt s; while w;  
Select s such that Follows(s, 4) and Parent(w, s)  
none
```

```
stmt s; while w;  
Select s such that Follows(w, s) and Parent(w, s)  
none
```

```
assign a; stmt s; while w;  
Select a such that Follows(a, s) and Parent(w, a)  
none
```

```
stmt s; while w;  
Select s such that Follows(s, w) and Parent(w, 8)  
none
```

```
procedure p; stmt s; while w;  
Select p such that Follows(w, s) and Parent(s, 2)  
none
```

```
stmt s; while w;  
Select s such that Uses(s, w) and Parent(w, 11)  
none
```

```
stmt s; while w;  
Select s such that Uses(s, 4) and Parent(w, s)  
none
```

```
stmt s; while w;  
Select s such that Uses(w, s) and Parent(w, s)  
none
```

```
procedure p; stmt s; while w;  
Select p such that Uses(w, s) and Parent(s, 5)  
none
```

```
assign a; stmt s; while w;  
Select a such that Uses(a, s) and Parent(w, a)  
none
```

```
stmt s; while w;  
Select s such that Follows(s, w) and Uses(w, 11)  
none
```

```
procedure p; stmt s; while w;  
Select p such that Follows(w, s) and Uses(s, 5)  
none
```

```
stmt s; while w;  
Select s such that Follows(w, s) and Uses(w, s)  
none
```

```
assign a; stmt s; while w;  
Select a such that Follows(a, s) and Uses(w, a)  
none
```

```
stmt s; while w;  
Select s such that Follows(s, 4) and Uses(w, s)  
none
```