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1) CFG for OnClick() of Basic Calculator

OnClick (view view)

Switch (view.getId)

Id = 0

Id = 1   ...   Id = 9

O   1   9

Switch (view.getId)

integer.parse int = number

add   sub   div   mult   Clear   equals

answer TV = setText
(num 1 + Operation +
num 2)
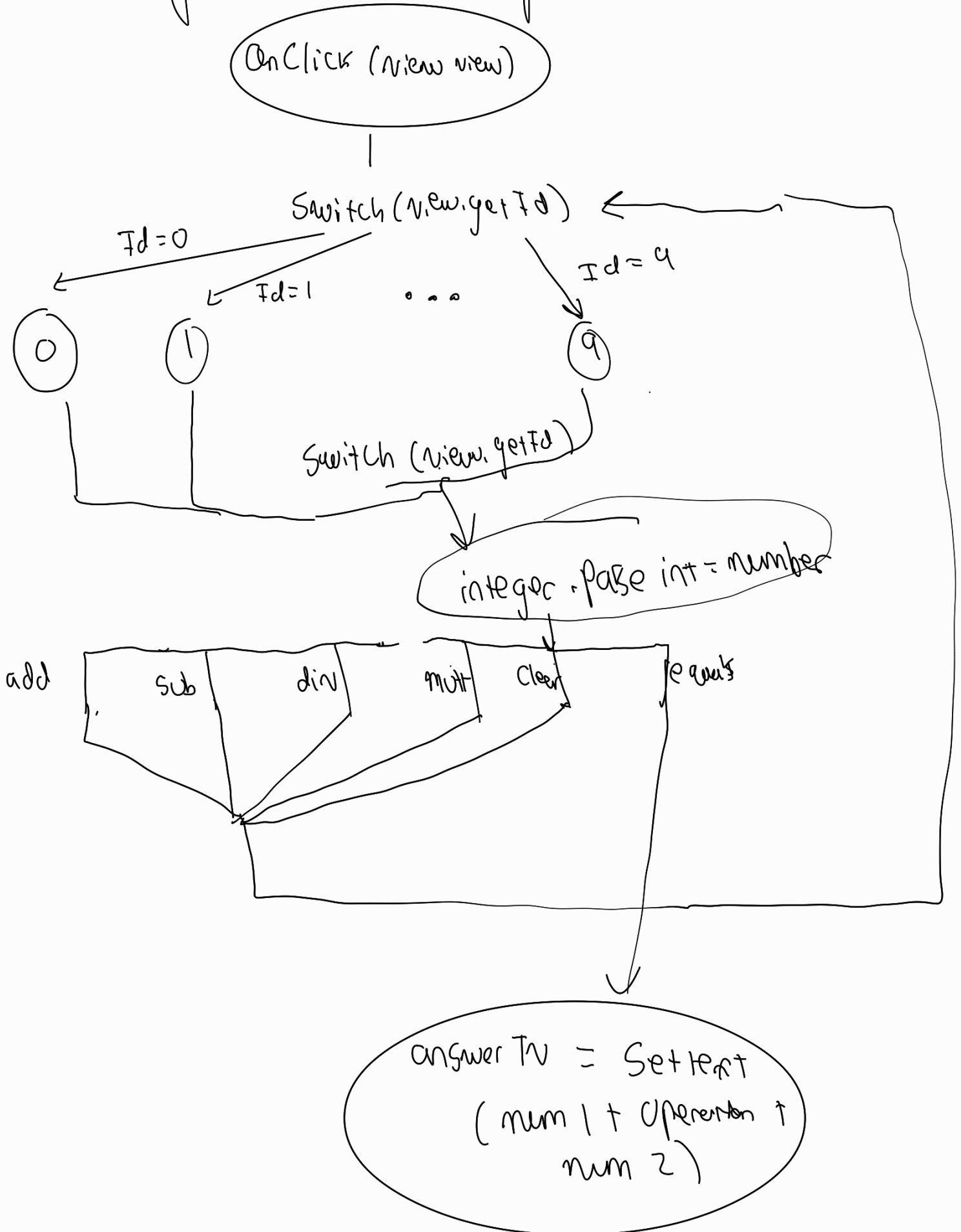
2) Node Coverage

TR:

Edges = { onclick (view, view), switch(view, g or 7 d) }

Nodes = { (0 ... 1) , + , - , $\times$, clear, equals)

total nodes executed E = 1 entry root +
1 switter + 11 Case nodes + 11 action
nodes + 11 Common = 35

Node coverage $\quad 35/36 \times 100$

$\quad = \boxed{97,22 \%}$

Tp = { [onclick, digit, btn, digit, . .
equals] }

3) edge coverage
{ [onclick, digt] }

[digit, action]

[common, digit)

[digit, common]

[digit, answer]

↓

total

$\frac{133}{134} = 99.25\%$

$TR = [E, S]$

$[S, C_1], [S, C_2] \ldots [S, C_{11}]$

$[C_1, A_{11}] \ldots [C_2, A_{11}]$

$\cdots$

$[C_{11}, A_{11}]$

$[A_1, 0] \ldots [A_{11}, 0]$

$[0, X]$

4) Edge pair coverage

[E , S , C]

[S , C , A]

[C , A , x]

Edge pair coverage

10 440

5)

```
                        ( Start )
                            |
                            | button click
                            |
                            v
        ┌──────────────── ( O )
        │                   |
        │                   | button click
        │                   v
   ( # )  ═══════════>    ( 1 )
   ( entry )                |
        │                   | button click
        │                   v
        v                 ( + )
  ( Symbol )  ══════════>
  ( entry )                 |
        │                   | button click
        │                   v
        v                 ( 2 )
  ( num )    ══════════>     |
  ( entry )                  | button click
        │                    v
        v                  ( - )
  ( Symbol )  ═══════════>    |
  ( entry )                   | button click
        │                     v
        v                   ( 3 )
  ( num )   ═══════════>      |  bc
  ( entry )                   v
        │                   ( / )
        │                     |  bc
        │                     v
        │                   ( x )
        v                     |  bc
                              v
```