

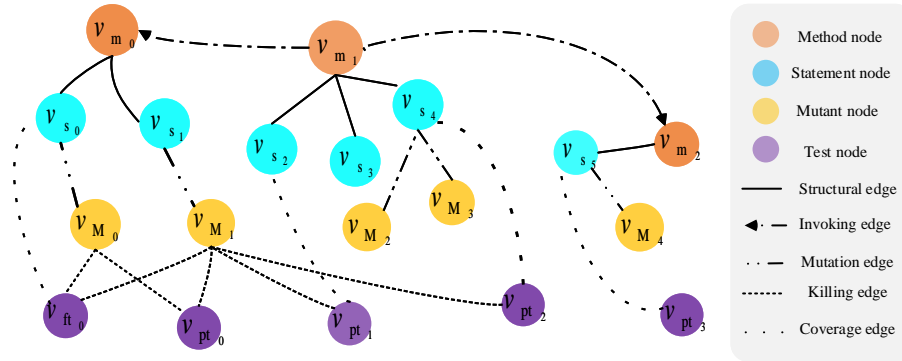
Table 2: The motivating example Lang-1 for SBFL

The highlighted line indicates the faulty method and corresponding suspiciousness and rank. The suspiciousness was calculated based on SBFL through Dstar<sup>2</sup>.

$m_{ID}$	Method Signature	Coverage					SBFL		SBFL <sub>G</sub>	
		$ft_0$	$pt_0$	$pt_1$	$pt_2$	$pt_3$	Sus	Rank	Sus	Rank
$m_0$	org/apache/commons/lang3/StringUtils@isBlank	*	*	*	*	-	0.33	3	0.41	2
$m_1$	org/apache/commons/lang3/math/NumberUtils@createNumber	*	*	*	*	-	<b>0.33</b>	<b>3</b>	<b>0.53</b>	<b>1</b>
$m_2$	org/apache/commons/lang3/math/NumberUtils@createInteger	*	*	*	-	*	0.33	3	0.38	3

Table 3: The motivating example Lang-1 for MBFL. The highlighted line is the faulty method and corresponding suspiciousness and rank. The suspiciousness was calculated based on MBFL through Dstar<sup>2</sup>.

$m_{ID}$	$M_{ID}$	Killed information					MBFL		MBFL <sub>G</sub>	
		$ft_0$	$pt_0$	$pt_1$	$pt_2$	$pt_3$	Sus	Rank	Sus	Rank
$m_0$	$M_0$	*	*	-	-	-	1.0	2	1.25	2
	$M_1$	*	*	*	*	-				
$m_1$	$M_2$	*	*	-	-	-	<b>1.0</b>	<b>2</b>	<b>1.60</b>	<b>1</b>
	$M_3$	*	*	-	-	-				
$m_2$	$M_4$	-	-	-	-	-	0	3	0	3



	0	1	2	0	1	2	3	4	5	0	1	2	3	4	0
0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1
2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1
5	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0
0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0
1	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0
2	0	0	0	1	1	1	1	1	0	0	1	0	0	0	0
3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

$$w(m_i) = PR_f(m_i) - \alpha PR_p(m_i)$$

$$\frac{w(m_i)}{\sum_{j=1}^n w(m_j)}$$

m0	0.04885283081648589	0.03225563007820329	0.0166	0.25
m1	0.10654562577236978	0.06709466945258682	0.0395	0.60
m2	0.02796520745738158	0.01776858032376580	0.0102	0.15