Nama : Surtina A Pardede

NIM : 11418048

Kelas : 43TRPL 2

**Satisfibility Relation**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | r1 | r2 | r3 | r4 | r5 | r6 | r7 | r8 | r9 | r10 | r11 | r12 |
| t1 | ✖ |  | ✖ |  |  |  |  |  |  |  |  | ✖ |
| t2 |  |  | ✖ |  |  |  |  |  |  |  |  |  |
| t3 | ✖ |  |  |  |  |  |  |  |  |  |  |  |
| t4 |  | ✖ |  |  |  |  |  |  | ✖ |  |  | ✖ |
| t5 |  |  | ✖ | ✖ |  |  |  |  |  |  |  |  |
| t6 | ✖ |  |  | ✖ |  | ✖ |  | ✖ |  | ✖ |  | ✖ |
| t7 |  |  |  |  | ✖ |  | ✖ |  | ✖ |  | ✖ |  |
| t8 | ✖ |  | ✖ | ✖ |  | ✖ |  | ✖ |  | ✖ |  | ✖ |
| t9 |  |  | ✖ |  |  | ✖ | ✖ |  |  |  | ✖ |  |
| t10 |  |  | ✖ |  |  | ✖ |  |  |  | ✖ |  | ✖ |

**Heuristic GRE**

1. Test Suite, T={t1,…,t10}
2. Testing Requirement, R={r1,…,r12}

E : Essential

R: Redundancy

G: Greedy

1. **Essential**

**E : Select t4 dan t7**

**Mark : r2,r9,r12,r5,r7,r11**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | r1 |  | r3 | r4 |  | r6 |  | r8 |  | r10 |  |  |
| t1 | ✖ |  | ✖ |  |  |  |  |  |  |  |  |  |
| t2 |  |  | ✖ |  |  |  |  |  |  |  |  |  |
| t3 | ✖ |  |  |  |  |  |  |  |  |  |  |  |
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| t5 |  |  | ✖ | ✖ |  |  |  |  |  |  |  |  |
| t6 | ✖ |  |  | ✖ |  | ✖ |  | ✖ |  | ✖ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| t8 | ✖ |  | ✖ | ✖ |  | ✖ |  | ✖ |  | ✖ |  |  |
| t9 |  |  | ✖ |  |  | ✖ |  |  |  |  |  |  |
| t10 |  |  | ✖ |  |  | ✖ |  |  |  | ✖ |  |  |

1. **Redudancy**

**R : Remove t1,t2,t3,t5,t6,t9,10**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | r1 | r2 | r3 | r4 |  | r6 |  | r8 |  | r10 |  |  |
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| t8 | ✖ |  | ✖ | ✖ |  | ✖ |  | ✖ |  | ✖ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
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1. **Essential**

**E : Select t8**

**Mark : r1,r3,r4,r6,r8,r10**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | r1 | r2 | r3 | r4 | r5 | r6 | r7 | r8 | r9 | r9 | r10 | r11 |
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Summary:

* E : Select t4 dan t7
* Mark : r2,r5,r7,r9,r11,r12
* R : t1,t2,t3,t5,t6,t9,10
* E : Select t8
* Mark : r1,r3,r4,r6,r8,r10

**Solusi:**

1. The representative set is : **t4, t7, t8.**
2. Hasil

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | r1 | r2 | r3 | r4 | r5 | r6 | r7 | r8 | r9 | r10 | r11 | r12 |
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| t4 |  | ✖ |  |  |  |  |  |  | ✖ |  |  | ✖ |
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| t7 |  |  |  |  | ✖ |  | ✖ |  | ✖ |  | ✖ |  |
| t8 | ✖ |  | ✖ | ✖ |  | ✖ |  | ✖ |  | ✖ |  | ✖ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
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