| Equivalence Class Design | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Valid EC |  |  |  |  | | Invalid EC | |  |  |
| EC ID | Condition | | | |  | EC ID | Condition | | |
| I1 | {x1: 1000 <= x1 <= 5000} | | | |  | NI1 | {x1: x1 < 1000} | | |
| M1 | {x2: 300 <= x2 <= 800} | | | |  | NI2 | {x1: 5000 < x1} | | |
| C1 | {x3: 500 <= x3 <= 3000} | | | |  | NM1 | {x2: x2 < 300} | | |
|  |  | | | |  | NM2 | {x2: 800 < x2} | | |
|  |  | | | |  | NC1 | {x3: x3 < 500} | | |
|  |  | | | |  | NC2 | {x3: 3000< x3} | | |
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| **Test Case Design and Test Results** | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | |  |  |  |  | |  |  | | |
| **Project Name:** | Income | | | | | | | **Project ID:** | | Lab5-1 | | | |
| **Test Strategy:** | Strong Robust Equivalence Class Testing | | | | | | | **Designer**: | | ณธฬ จันทร์หอม | | | |
| **Test Environment:** | | จำนวน Test case = 3 \* 3 \* 3 = 27 case, หาก input invalid จะให้ผลลัพธ์คือ -1.0 | | | | | | | | | | | |
|  |  | | | |  |  |  |  | |  |  | | |
| **Test Case ID** | **Input** | | | **Expected Result** | | | | | **Actual Result** | | | **Status (Pass/Fail/No run)** |
| Impeller | motor | cover |
| TC01 | 500 | 150 | 250 | -1.0 | | | | | -1.0 | | | Pass |
| TC02 | 500 | 150 | 1000 | -1.0 | | | | | -1.0 | | | Pass |
| TC03 | 500 | 150 | 6000 | -1.0 | | | | | -1.0 | | | Pass |
| TC04 | 500 | 600 | 250 | -1.0 | | | | | -1.0 | | | Pass |
| TC05 | 500 | 600 | 1000 | -1.0 | | | | | -1.0 | | | Pass |
| TC06 | 500 | 600 | 6000 | -1.0 | | | | | -1.0 | | | Pass |
| TC07 | 500 | 1600 | 250 | -1.0 | | | | | -1.0 | | | Pass |
| **Test Case ID** | **Input** | | | **Expected Result** | | | | | **Actual Result** | | | **Status (Pass/Fail/No run)** |
| Impeller | motor | cover |
| TC08 | 500 | 1600 | 1000 | -1.0 | | | | | -1.0 | | | Pass |
| TC09 | 500 | 1600 | 6000 | -1.0 | | | | | -1.0 | | | Pass |
| TC10 | 2000 | 150 | 250 | -1.0 | | | | | -1.0 | | | Pass |
| TC11 | 2000 | 150 | 1000 | -1.0 | | | | | -1.0 | | | Pass |
| TC12 | 2000 | 150 | 6000 | -1.0 | | | | | -1.0 | | | Pass |
| TC13 | 2000 | 600 | 250 | -1.0 | | | | | -1.0 | | | Pass |
| TC14 | 2000 | 600 | 1000 | 58,000 | | | | | 58,000 | | | Pass |
| TC15 | 2000 | 600 | 6000 | -1.0 | | | | | 158,000 | | | Fail |
| TC16 | 2000 | 1600 | 250 | -1.0 | | | | | -1.0 | | | Pass |
| TC17 | 2000 | 1600 | 1000 | -1.0 | | | | | 88,000 | | | Fail |
| TC18 | 2000 | 1600 | 6000 | -1.0 | | | | | 188,000 | | | Fail |
| TC19 | 10000 | 150 | 250 | -1.0 | | | | | -1.0 | | | Pass |
| TC20 | 10000 | 150 | 1000 | -1.0 | | | | | -1.0 | | | Pass |
| TC21 | 10000 | 150 | 6000 | -1.0 | | | | | -1.0 | | | Pass |
| TC22 | 10000 | 600 | 250 | -1.0 | | | | | -1.0 | | | Pass |

| **Test Case ID** | **Input** | | | **Expected Result** | **Actual Result** | **Status (Pass/Fail/No run)** |
| --- | --- | --- | --- | --- | --- | --- |
| Impeller | motor | cover |
| TC23 | 10000 | 600 | 1000 | -1.0 | 138,000 | Fail |
| TC24 | 10000 | 600 | 6000 | -1.0 | 238,000 | Fail |
| TC25 | 10000 | 1600 | 250 | -1.0 | -1.0 | Pass |
| TC26 | 10000 | 1600 | 1000 | -1.0 | 168,000 | Fail |
| TC27 | 10000 | 1600 | 6000 | -1.0 | 268,000 | Fail |

| **Scenario ID** | **Scenario Name** | **Test Case#** | **Pass** | **Fail** | **No run** | **Block** | **Remark** | **Defect ID** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EC-Lab5-01 | Income | 27 | 20 | 7 | 0 | 0 | 0 |  |
| รวม | | 27 | 20 | 7 | 0 | 0 | 0 |  |