**Part 3 – Cyclomatic Complexity**

V(G) = E-N + 2

* V(G) = 15 – 11 + 2
* V(G) = 6

Therefore:

* Code is structured and well written
* It has High Testability
* Its Cost and Effort is less

**Part 4 – Test Cases**

|  |  |  |
| --- | --- | --- |
| **AGE** | **GENDER** | **PREMIUM** |
| 15 | Male | 0 |
| 15 | Female | 0 |
| 25 | Male | 6 |
| 25 | Female | 5 |
| 39 | Male | 5 |
| 35 | Female | 2.5 |
| 60 | Male | 0.75 |
| 60 | Female | 0.375 |
| 35 | Agender | 0 |

**Part 6 – Equivalence Partitioning and Boundary Value Analysis**

|  |  |  |
| --- | --- | --- |
| **Equivalence Partitioning** | | |
| **Valid** | | |
| Range | Premium | Value |
| x >= 18 && x <= 30 | 5.0 | 20 |
| x >= 31 | 2.50 | 35 |
| x >= 50 | 0.15 | 55 |
| **Invalid** | | |
| **Range** | **Value** |  |
| x >= 18 && x <= 30 | -20 | Can’t have negative values |
| x >= 31 | “Thirty-two” | Value must be an int |

|  |  |
| --- | --- |
| **Boundary Value Analysis** | |
| **Value** | **x >= 18 && x <= 30** |
| 17 | False |
| 18 | True |
| 25 | True |
| 31 | False |
| **Value** | **x >= 31** |
| 30 | False |
| 31 | True |
| 35 | True |
| **Value** | **x >= 50** |
| 49 | False |
| 50 | True |
| 51 | True |

**Jenkins**

Jenkins is used to check code committed