**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 |

**Part 9 – Jenkins (A Brief Note)**

Jenkins is an open source tool and it’s used for continuous integration purposes. It continuously tests projects which can help developers integrate changes easily and can get the latest build of the project. It’s written in Java so it makes it easy to use on most platforms.

Jenkins is an automated testing tool so when a developer is doing continuous integration, Jenkins can help with testing the latest build to ensure it works fine and doesn’t throw back any errors or bugs.