|  |  |  |  |
| --- | --- | --- | --- |
|  | Nearest Neighbors | Training error | Validation error |
| Weighted | 3 | 0 | 26 |
| 5 | 0 | 26 |
| 10 | 0 | 34 |
| 20 | 0 | 34 |
| Unweighted | 3 | 10 | 28 |
| 5 | 18 | 30 |
| 10 | 26 | 32 |
| 20 | 28 | 36 |

Part -1

Bad

Average

Good

Average

Bad

Part 2

|  |  |  |  |
| --- | --- | --- | --- |
|  | Nearest Neighbors | Training error | Validation error |
| Weighted | 2 | 0 | 36.25 |
| 3 | 0 | 32.5 |
| 4 | 0 | 31.25 |
| 5 | 0 | 22.5 |
| 6 | 0 | 22.5 |
| 7 | 0 | 25 |
| 8 | 0 | 27.5 |
| 9 | 0 | 32.5 |
| 10 | 0 | 35 |
| Unweighted | 2 | 15 | 42.5 |
| 3 | 15 | 32.5 |
| 4 | 17.5 | 33.75 |
| 5 | 17.5 | 30 |
| 6 | 17.5 | 27.5 |
| 7 | 17.5 | 31.25 |
| 8 | 17.5 | 35 |
| 9 | 25 | 38.75 |
| 10 | 30 | 42.5 |

Medium risk

Low risk

Undetermined

High risk

Medium risk

High risk

High risk

Undetermined

Medium risk

Medium risk

Part 3

|  |  |  |
| --- | --- | --- |
|  | Training error | Leave one out error |
| Class error | 0 | 42.30 |
| Gini measure |  |  |

Part 4

|  |  |  |
| --- | --- | --- |
|  | Training error | Leave one out error |
| Class error | 2.38 | 45.23 |
| Gini measure |  |  |