**Data Binning**

For making data smooth

The purpose of data smoothing is to eliminate noise and “smooth out” the data functions.

Example: 4,8,15,15,21,30,31,36,38

We have to sorting number from small to large..

1.Equal partitioned bin:

**Bin 1:** 4,8,15

**Bin 2:** 15,21,30

**Bin 3:** 31,36,40

2.Bin mean:

**Bin1:** 9,9,9 [N:B:We have to mean number]

**Bin2:** 22,22,22

**Bin3:** 35,35,35

3.Bin boundaries:

**Bin 1:** 4,4,15

**Bin 2:** 15,15,30

**Bin 3:** 31,40,40

[N:B:We have to same “1st” and “last” digit..we need to change middle point.And these middle number will be the replace number of nearest number from these.

**Example-2**

Data: 8,16,9,15,21,24,30,26,27,30,30,34

We have put 4 numbers of each bin......

After sorting:8,9,15,16,21,21,24,26,27,30,30,34

1.Equal partitioned:

**Bin 1:** 8,9,15,16

**Bin 1:** 21,21,24,26

**Bin 1:** 27,30,30,34

2.Bin mean:

**Bin1:** 12,12,12,12

**Bin2:** 23,23,23,23

**Bin3:** 30,30,30,30

3.Bin boundaries:

**Bin 1:** 8,8,16,16

**Bin 1:** 21,21,26,26

**Bin 1:** 27,27,27,34

**Example-3**

Data: 8,16,9,15,21,24,30,26

We have put 3 numbers of each bin......

After sorting:8,9,15,16,21,21,24,26

1.Equal partitioned:

**Bin 1:** 8,9,15

**Bin 2:** 16,21,21

**Bin 3:** 24,26

2.Bin mean:

**Bin 1:** 10.66,10.66,10.66

**Bin 2:** 19.33,19.33,19.33

**Bin 3:** 25,25

3.Bin boundaries:

**Bin 1:** 8,8,15

**Bin 2:** 16,21,21

**Bin 3:** 24,26