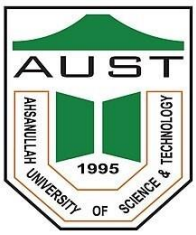

Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

Course No : **CSE4142**

Course Title : **Data Warehousing and Mining Lab**

Assignment No : **01**

Date of Submission : **12.05.2024**

Submitted To : **Mr. Saha Reno & Mr. Raiyan Jahangir**

Submitted By-

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ID: 20200204065

Section: B1

Original Training Dataset and Modified Training Dataset:

```
@relation weather

@attribute outlook {sunny, overcast, rainy}
@attribute temparature real
@attribute humidity real
@attribute windy {TRUE, FALSE}
@attribute play {yes, no}

@data
sunny, 85, 85, FALSE, no
sunny, 80, 90, TRUE, no
overcast, 83, 86, FALSE, yes
rainy, 70, 96, FALSE, yes
rainy, 68, 80, FALSE, yes
rainy, 65, 70, TRUE, no
overcast, 64, 65, TRUE, yes
overcast, 72, 90, TRUE, yes
sunny, 75, 85, TRUE, no
sunny, 88, 92, FALSE, no
overcast, 81, 88, FALSE, yes
rainy, 67, 78, TRUE, no
rainy, 72, 85, FALSE, yes
sunny, 79, 89, TRUE, no
overcast, 73, 90, TRUE, yes
rainy, 66, 75, FALSE, yes
sunny, 84, 91, FALSE, no
overcast, 80, 87, TRUE, yes
rainy, 69, 79, FALSE, yes
sunny, 77, 88, FALSE, no
sunny, 82, 93, TRUE, no
overcast, 78, 92, FALSE, yes
rainy, 71, 80, TRUE, no
rainy, 68, 77, TRUE, no
sunny, 85, 90, TRUE, no
overcast, 79, 85, FALSE, yes
sunny, 72, 86, FALSE, no
rainy, 70, 82, TRUE, no
```

```
@relation weather-weka.filters.unsupervised.attribute.

@attribute outlook {sunny,overcast,rainy}
@attribute temparature {'\'(-inf-66.4]\'','\'(66.4-68.
@attribute humidity {'\'(-inf-68.1]\'','\'(68.1-71.2]\
@attribute windy {TRUE,FALSE}
@attribute play {yes,no}

@data
sunny,'\'(83.2-85.6]\'','\'(83.6-86.7]\'',FALSE,no
sunny,'\'(78.4-80.8]\'','\'(89.8-92.9]\'',TRUE,no
overcast,'\'(80.8-83.2]\'','\'(83.6-86.7]\'',FALSE,yes
rainy,'\'(68.8-71.2]\'','\'(92.9-inf)\'',FALSE,yes
rainy,'\'(66.4-68.8]\'','\'(77.4-80.5]\'',FALSE,yes
rainy,'\'(-inf-66.4]\'','\'(68.1-71.2]\'',TRUE,no
overcast,'\'(-inf-66.4]\'','\'(-inf-68.1]\'',TRUE,yes
overcast,'\'(71.2-73.6]\'','\'(89.8-92.9]\'',TRUE,yes
sunny,'\'(73.6-76]\'','\'(83.6-86.7]\'',TRUE,no
sunny,'\'(85.6-inf)\'','\'(89.8-92.9]\'',FALSE,no
overcast,'\'(80.8-83.2]\'','\'(86.7-89.8]\'',FALSE,yes
rainy,'\'(66.4-68.8]\'','\'(77.4-80.5]\'',TRUE,no
rainy,'\'(71.2-73.6]\'','\'(83.6-86.7]\'',FALSE,yes
sunny,'\'(78.4-80.8]\'','\'(86.7-89.8]\'',TRUE,no
overcast,'\'(71.2-73.6]\'','\'(89.8-92.9]\'',TRUE,yes
rainy,'\'(-inf-66.4]\'','\'(74.3-77.4]\'',FALSE,yes
sunny,'\'(83.2-85.6]\'','\'(89.8-92.9]\'',FALSE,no
overcast,'\'(78.4-80.8]\'','\'(86.7-89.8]\'',TRUE,yes
rainy,'\'(68.8-71.2]\'','\'(77.4-80.5]\'',FALSE,yes
sunny,'\'(76-78.4]\'','\'(86.7-89.8]\'',FALSE,no
sunny,'\'(80.8-83.2]\'','\'(92.9-inf)\'',TRUE,no
overcast,'\'(76-78.4]\'','\'(89.8-92.9]\'',FALSE,yes
rainy,'\'(68.8-71.2]\'','\'(77.4-80.5]\'',TRUE,no
rainy,'\'(66.4-68.8]\'','\'(74.3-77.4]\'',TRUE,no
sunny,'\'(83.2-85.6]\'','\'(89.8-92.9]\'',TRUE,no
overcast,'\'(78.4-80.8]\'','\'(83.6-86.7]\'',FALSE,yes
sunny,'\'(71.2-73.6]\'','\'(83.6-86.7]\'',FALSE,no
rainy,'\'(68.8-71.2]\'','\'(80.5-83.6]\'',TRUE,no
```

Original Test Dataset and Modified Test Dataset:

```
@relation weather

@attribute outlook {sunny, overcast, rainy}
@attribute temparature real
@attribute humidity real
@attribute windy {TRUE, FALSE}
@attribute play {yes, no}

@data
sunny, 76, 83, FALSE, no
rainy, 65, 72, FALSE, yes
overcast, 77, 89, TRUE, yes
sunny, 83, 94, TRUE, no
rainy, 68, 81, TRUE, no
sunny, 78, 87, FALSE, no
overcast, 75, 86, FALSE, yes
rainy, 63, 75, TRUE, yes
sunny, 81, 90, TRUE, no
overcast, 76, 88, TRUE, yes
```

```
@relation weather-weka.filters.unsupervised.attribute.I

@attribute outlook {sunny,overcast,rainy}
@attribute temparature {'\'(-inf-66.4]\'','\'(66.4-68.8
@attribute humidity {'\'(-inf-68.1]\'','\'(68.1-71.2]\'
@attribute windy {TRUE,FALSE}
@attribute play {yes,no}

@data
sunny,'\'(83.2-85.6]\'','\'(83.6-86.7]\'',FALSE,no
sunny,'\'(78.4-80.8]\'','\'(89.8-92.9]\'',TRUE,no
overcast,'\'(80.8-83.2]\'','\'(83.6-86.7]\'',FALSE,yes
rainy,'\'(68.8-71.2]\'','\'(92.9-inf)\'',FALSE,yes
rainy,'\'(66.4-68.8]\'','\'(77.4-80.5]\'',FALSE,yes
rainy,'\'(-inf-66.4]\'','\'(68.1-71.2]\'',TRUE,no
overcast,'\'(-inf-66.4]\'','\'(-inf-68.1]\'',TRUE,yes
overcast,'\'(71.2-73.6]\'','\'(89.8-92.9]\'',TRUE,yes
sunny,'\'(73.6-76]\'','\'(83.6-86.7]\'',TRUE,no
sunny,'\'(85.6-inf)\'','\'(89.8-92.9]\'',FALSE,no
```

Model and Output: