File - main

```
D:\Python3.7\python.exe E:/PROJECT/PROJECT_PYTHON/Mini-ML-Air-BnB/com/frogobox/main.py
Name       : Muhammad Faisal Amir
NIM        : 1301198497
Class      : IFX-43-GAB
Major      : S1 Informatika 2019
University : Telkom University
------------------------------------------------------------------------
Dataset : AIR BNB
Date : 2020-04-09
------------------------------------------------------------------------
 -- Column already specified --
------------------------------------------------------------------------
['price', 'minimum_nights', 'number_of_reviews', 'availability_365']
------------------------------------------------------------------------
Result Clustering : result/2020-04-09-airbnb-clustering-kmeans.csv
------------------------------------------------------------------------
       price  minimum_nights  number_of_reviews  availability_365    class
0         90              62                143               220  class_1
1         26               5                 25               297  class_1
2        180               6                  6               137  class_1
3        120              30                  0               365  class_1
4         90              60                 48               159  class_1
...      ...             ...                ...               ...      ...
22547    100              28                  0                90  class_2
22548     20               1                  0                78  class_2
22549     85               3                  0                15  class_2
22550     99               1                  0                 6  class_2
22551     45               5                  0                21  class_2

[22552 rows x 5 columns]


------------------------------------------------------------------------
Result Classification : result/2020-04-09-airbnb-classificaction-knn.csv
------------------------------------------------------------------------
       price  minimum_nights  number_of_reviews  availability_365    class
0         69               1                  0                81  class_2
1        120               5                 24                20  class_2
2         60               5                 41                35  class_2
3         18              30                  0               307  class_1
4         30               1                  1                 0  class_2
...      ...             ...                ...               ...      ...
6761      30               1                  0                 0  class_2
6762      45               7                  4                 0  class_2
6763      49               2                 12                34  class_2
6764     110              90                123               329  class_1
6765     100               1                  4                 0  class_2

[6766 rows x 5 columns]


------------------------------------------------------------------------
Result Confusion Matrix :
------------------------------------------------------------------------
[[1513    7]
 [  29 5217]]


------------------------------------------------------------------------
Result Classification Report :
------------------------------------------------------------------------
              precision    recall  f1-score   support

     class_1       0.98      1.00      0.99      1520
     class_2       1.00      0.99      1.00      5246

    accuracy                           0.99      6766
   macro avg       0.99      0.99      0.99      6766
weighted avg       0.99      0.99      0.99      6766


------------------------------------------------------------------------
 --     Column random       --
------------------------------------------------------------------------
[3, 4, 5, 9]
['longitude', 'price', 'minimum_nights', 'availability_365']
------------------------------------------------------------------------
Result Clustering : result/2020-04-09-airbnb-clustering-kmeans-random.csv
------------------------------------------------------------------------
       longitude  price  minimum_nights  availability_365    class
0      13.417579   90.0            62.0             220.0  class_1
1      13.349065   26.0             5.0             297.0  class_1
2      13.416047  180.0             6.0             137.0  class_1
3      13.457850  120.0            30.0             365.0  class_1
4      13.435102   90.0            60.0             159.0  class_1
...          ...    ...             ...               ...      ...
22547  13.354795  100.0            28.0              90.0  class_2
22548  13.341738   20.0             1.0              78.0  class_2
22549  13.411999   85.0             3.0              15.0  class_2
22550  13.378688   99.0             1.0               6.0  class_2
```

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22551  13.424447   45.0          5.0          21.0  class_2

[22552 rows x 5 columns]


------------------------------------------------------------------------
Result Classification : result/2020-04-09-airbnb-classificaction-knn-random.csv
------------------------------------------------------------------------
      longitude  price  minimum_nights  availability_365    class
0     13.398792   37.0            21.0               0.0  class_2
1     13.431420   45.0             3.0               0.0  class_2
2     13.425511   23.0             1.0               0.0  class_2
3     13.480602   40.0             1.0             351.0  class_1
4     13.513353   50.0             3.0             322.0  class_1
...         ...    ...             ...               ...      ...
6761  13.437638   70.0             1.0               0.0  class_2
6762  13.436738   12.0             2.0               0.0  class_2
6763  13.380381   25.0            11.0               0.0  class_2
6764  13.409690   90.0             3.0             298.0  class_1
6765  13.438474   50.0             1.0               0.0  class_2

[6766 rows x 5 columns]


------------------------------------------------------------------------
Result Confusion Matrix :
------------------------------------------------------------------------
[[1445    8]
 [  46 5267]]


------------------------------------------------------------------------
Result Classification Report :
------------------------------------------------------------------------
              precision    recall  f1-score   support

     class_1       0.97      0.99      0.98      1453
     class_2       1.00      0.99      0.99      5313

    accuracy                           0.99      6766
   macro avg       0.98      0.99      0.99      6766
weighted avg       0.99      0.99      0.99      6766


Process finished with exit code 0
```