```
PS C:\Users\91799\OneDrive\Desktop\Prog langs\Cognizance> python
Modified file contents:
1,Aaa,3.5,Maths
2,Bbb,4.2,Physics
3,Ccc,7.62,Chemistry
4,Ddd,9.55,Biology
5, Eee, 4.0, Social
6,Fff,7.6,English
7,Ggg,3.111,Maths
8,Hhh,9.99,Physics
9, Iii, 1.23, Civics
```

PS C:\Users\91799\OneDrive\Desktop\Prog langs\Cognizance> python Missing values in the given csv file are: Id0 **MSSubClass** 0 **MSZoning** 0 LotFrontage 14 LotArea 0 Street 0 Alley 93 LotShape 0 LandContour 0 **Utilities** 0 LotConfig 0 LandSlope 0 Neighborhood 0 Condition1 0 Condition2 0 BldgType 0 **HouseStyle** 0 OverallQual 0 OverallCond 0 YearBuilt 0 YearRemodAdd 0 RoofStyle 0 RoofMat1 0 Exterior1st 0 Exterior2nd 0 MasVnrType 0 MasVnrArea 0 ExterQual 0 ExterCond 0 Foundation 0 **BsmtQual** 3 BsmtCond 3 **BsmtExposure** 3 BsmtFinType1 3

```
BsmtFinSF1
                0
BsmtFinType2
                3
dtype: int64
    Id MSSubClass MSZoning LotFrontage LotArea Street Alley LotShape ... ExterCond Foundation BsmtQual BsmtCond BsmtExposure BsmtFinType1 BsmtFinType2
17 18
               90
                        RL
                                  72.0
                                          10791
                                                  Pave
                                                        NaN
                                                                                TA
                                                                                         Slab
                                                                                                   NaN
                                                                                                           NaN
                                                                                                                       NaN
                                                                                                                                    NaN
                                                                 Reg ...
                                                                                                                                                           NaN
39 40
                        RL
               90
                                  65.0
                                           6040
                                                  Pave
                                                        NaN
                                                                 Reg
                                                                                TA
                                                                                        PConc
                                                                                                   NaN
                                                                                                           NaN
                                                                                                                        NaN
                                                                                                                                    NaN
                                                                                                                                                 0
                                                                                                                                                           NaN
90 91
               20
                        RL
                                  60.0
                                                                                TA
                                                                                         Slab
                                                                                                   NaN
                                                                                                           NaN
                                                                                                                        NaN
                                                                                                                                    NaN
                                                                                                                                                           NaN
                                           7200
                                                 Pave
                                                        NaN
                                                                 Reg ...
                                                                                                                                                 0
[3 rows x 36 columns]
Missing values in LotFrontage:
     False
0
     False
     False
     False
     False
4
     False
95
      True
     False
96
97
     False
     False
98
Name: LotFrontage, Length: 99, dtype: bool
updated LotFrontage values:
      65.0
0
      80.0
1
      68.0
2
      60.0
3
      84.0
4
      69.0
94
95
      empty
96
      78.0
97
       73.0
```

```
97
       73.0
98
       85.0
Name: LotFrontage, Length: 99, dtype: object
Missing values in Alley:
      True
0
1
      True
2
      True
3
      True
4
      True
94
      True
95
      True
96
      True
97
      True
98
      True
Name: Alley, Length: 99, dtype: bool
updated Alley values:
0
      empty
      empty
1
2
      empty
      empty
3
4
      empty
94
      empty
95
      empty
96
      empty
      empty
97
98
      empty
Name: Alley, Length: 99, dtype: object
```

```
Slab
17 18
                90
                         RL
                                   72.0
                                           10791
                                                        empty
                                                                    Reg ...
                                                                                    TA
                                                                                                      NaN
                                                                                                                NaN
                                                                                                                             NaN
                                                                                                                                          NaN
                                                                                                                                                       0
                                                   Pave
                                                                                                                                                                  NaN
39 40
                90
                         RL
                                   65.0
                                            6040
                                                        empty
                                                                    Reg ...
                                                                                    TA
                                                                                            PConc
                                                                                                       NaN
                                                                                                                NaN
                                                                                                                             NaN
                                                                                                                                          NaN
                                                                                                                                                       0
                                                                                                                                                                  NaN
                                                   Pave
                                                                                             Slab
90 91
                20
                         RL
                                   60.0
                                            7200
                                                        empty
                                                                                    TA
                                                                                                                             NaN
                                                                                                                                                                  NaN
                                                   Pave
                                                                    Reg ...
                                                                                                       NaN
                                                                                                                NaN
                                                                                                                                          NaN
                                                                                                                                                       0
[3 rows x 36 columns]
updated BsmtQual values:
Empty DataFrame
Columns: [Id, MSSubClass, MSZoning, LotFrontage, LotArea, Street, Alley, LotShape, LandContour, Utilities, LotConfig, LandSlope, Neighborhood, Condition1, Condition2, BldgType,
HouseStyle, OverallOual, OverallCond, YearBuilt, YearRemodAdd, RoofStyle, RoofMatl, Exterior1st, Exterior2nd, MasVnrType, MasVnrArea, ExterOual, ExterCond, Foundation, BsmtOua
1, BsmtCond, BsmtExposure, BsmtFinType1, BsmtFinSF1, BsmtFinType2]
```

Id MSSubClass MSZoning LotFrontage LotArea Street Alley LotShape ... ExterCond Foundation BsmtQual BsmtCond BsmtExposure BsmtFinType1 BsmtFinType2

```
Slab
17 18
                                   72.0
                                           10791
                                                   Pave
                                                                                    TA
                                                                                                      empty
                90
                         RL
                                                         empty
                                                                    Reg ...
                                                                                                                 NaN
                                                                                                                              NaN
                                                                                                                                           NaN
                                                                                                                                                        0
                                                                                                                                                                   NaN
39 40
                90
                         RL
                                   65.0
                                            6040
                                                   Pave
                                                         empty
                                                                    Reg ...
                                                                                    TA
                                                                                             PConc
                                                                                                      empty
                                                                                                                 NaN
                                                                                                                              NaN
                                                                                                                                           NaN
                                                                                                                                                        0
                                                                                                                                                                   NaN
                                                                                              Slab
                20
                         RL
                                   60.0
                                                   Pave empty
                                                                                    TA
                                                                                                     empty
                                                                                                                                                        0
                                                                                                                                                                   NaN
90 91
                                            7200
                                                                    Reg ...
                                                                                                                 NaN
                                                                                                                              NaN
                                                                                                                                           NaN
[3 rows x 36 columns]
```

Columns: [Id, MSSubClass, MSZoning, LotFrontage, LotArea, Street, Alley, LotShape, LandContour, Utilities, LotConfig, LandSlope, Neighborhood, Condition1, Condition2, BldgType, HouseStyle, OverallQual, OverallCond, YearBuilt, YearRemodAdd, RoofStyle, RoofMatl, Exterior1st, Exterior2nd, MasVnrType, MasVnrArea, ExterQual, ExterCond, Foundation, BsmtQua

TA

TA

TA

Reg ...

Reg ...

Reg ...

LotArea Street Alley LotShape ... ExterCond Foundation BsmtQual BsmtCond BsmtExposure BsmtFinType1 BsmtFinSF1 BsmtFinType2

LotArea Street Alley LotShape ... ExterCond Foundation BsmtQual BsmtCond BsmtExposure BsmtFinType1 BsmtFinSF1 BsmtFinType2

empty

empty

empty

empty

empty

empty

NaN

NaN

NaN

NaN

NaN

NaN

0

0

0

NaN

NaN

NaN

Slab

**PConc** 

Slab

Empty DataFrame

Index: []

17 18

39 40

90 91

Index: []

Id MSSubClass MSZoning LotFrontage

Id MSSubClass MSZoning LotFrontage

RL

RL

RL

90

90

20

l, BsmtCond, BsmtExposure, BsmtFinType1, BsmtFinSF1, BsmtFinType2

72.0

65.0

60.0

10791

6040

7200

Pave

Pave

Pave

empty

empty

empty

updated BsmtCond values:

# Empty DataFrame

updated BsmtExposure values:



Columns: [Id, MSSubClass, MSZoning, LotFrontage, LotArea, Street, Alley, LotShape, LandContour, Utilities, LotConfig, LandSlope, Neighborhood, Condition1, Condition2, BldgType, HouseStyle, OverallOual, OverallCond, YearBuilt, YearRemodAdd, RoofStyle, RoofMatl, Exterior1st, Exterior2nd, MasVnrType, MasVnrArea, ExterOual, ExterCond, Foundation, BsmtOua 1, BsmtCond, BsmtExposure, BsmtFinType1, BsmtFinSF1, BsmtFinType2] Index: []

Id MSSubClass MSZoning LotFrontage LotArea Street Alley LotShape ... ExterCond Foundation BsmtQual BsmtCond BsmtExposure BsmtFinType1 BsmtFinSF1 BsmtFinType2 17 18 90 RL 72.0 10791 empty Reg ... TA Slab empty empty empty NaN 0 Pave NaN 90 RL 65.0 6040 empty Reg ... TA **PConc** NaN 39 40 Pave empty empty empty 0 NaN 60.0 Slab

TA

empty

empty

empty

NaN

0

NaN

Reg ...

[3 rows x 36 columns]

## updated BsmtFinType1 values:

20

RL

7200

Pave empty

### **Empty DataFrame**

90 91

Columns: [Id, MSSubClass, MSZoning, LotFrontage, LotArea, Street, Alley, LotShape, LandContour, Utilities, LotConfig, LandSlope, Neighborhood, Condition1, Condition2, BldgType, HouseStyle, OverallQual, OverallCond, YearBuilt, YearRemodAdd, RoofStyle, RoofMatl, Exterior1st, Exterior2nd, MasVnrType, MasVnrArea, ExterQual, ExterCond, Foundation, BsmtQua 1, BsmtCond, BsmtExposure, BsmtFinType1, BsmtFinSF1, BsmtFinType2] Index: []

Id MSSubClass MSZoning LotFrontage LotArea Street Alley LotShape ... ExterCond Foundation BsmtQual BsmtCond BsmtExposure BsmtFinType1 BsmtFinSF1 BsmtFinType2 17 18 Slab 90 RL 72.0 10791 Pave empty Reg ... TA empty empty empty empty 0 NaN 39 40 65.0 6040 Reg ... TA **PConc** NaN 90 RL Pave empty empty empty empty empty 0 20 60.0 7200 TA Slab NaN 90 91 RL Pave empty Reg ... empty empty empty empty 0

[3 rows x 36 columns]

# updated BsmtFinType2 values:

**Empty DataFrame** Columns: [Id, MSSubClass, MSZoning, LotFrontage, LotArea, Street, Alley, LotShape, LandContour, Utilities, LotConfig, LandSlope, Neighborhood, Condition1, Condition2, BldgType, HouseStyle, OverallQual, OverallCond, YearBuilt, YearRemodAdd, RoofStyle, RoofMatl, Exterior1st, Exterior2nd, MasVnrType, MasVnrArea, ExterQual, ExterCond, Foundation, BsmtQua

```
Updated final csv file:
Id
                 0
Street
                 0
Alley
                 0
LotShape
                 0
LandContour
                 0
Utilities
                 0
LotConfig
                 0
LandSlope
                 0
Neighborhood
                 0
Condition1
                 0
Condition2
                 0
BldgType
                 0
HouseStyle
                 0
OverallQual
                 0
OverallCond
                 0
YearBuilt
                 0
YearRemodAdd
                 0
RoofStyle
                 0
RoofMat1
                 0
Exterior1st
                 0
Exterior2nd
                 0
MasVnrType
                 0
MasVnrArea
                 0
ExterQual
                 0
ExterCond
                 0
Foundation
                 0
BsmtQual
                 0
BsmtCond
                 0
BsmtExposure
                 0
BsmtFinType1
                 0
BsmtFinSF1
                 0
BsmtFinType2
                 0
dtype: int64
PS C:\Users\91799\OneDrive\Desktop\Prog langs\Cognizance>
```

```
PS C:\Users\91799\OneDrive\Desktop\Prog langs\Cognizance> python -u "c:\Users\91799\OneDrive
Six letter words in the given file are:
['python', 'almost', 'aspect', 'python', 'crunch', 'python', 'pandas', 'python', 'pandas']
Most frequently used 6 letter word is:
python
```