```
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
```

q1

```
PS C:\Users\91799\OneDrive\Desktop\Prog langs\Cognizance> python

Missing values in the given csv file are:
Id               0
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
RoofMatl         0
Exterior1st      0
Exterior2nd      0
MasVnrType       0
MasVnrArea       0
ExterQual        0
ExterCond        0
Foundation       0
BsmtQual         3
BsmtCond         3
BsmtExposure     3
BsmtFinType1     3
```

q2

q2

```
BsmtFinSF1       0
BsmtFinType2     3
dtype: int64
    Id  MSSubClass MSZoning  LotFrontage  LotArea Street Alley LotShape  ... ExterCond Foundation BsmtQual BsmtCond BsmtExposure BsmtFinType1 BsmtFinSF1 BsmtFinType2
17  18          90       RL         72.0    10791   Pave   NaN      Reg  ...        TA       Slab      NaN      NaN          NaN          NaN         0          NaN
39  40          90       RL         65.0     6040   Pave   NaN      Reg  ...        TA      PConc      NaN      NaN          NaN          NaN         0          NaN
90  91          20       RL         60.0     7200   Pave   NaN      Reg  ...        TA       Slab      NaN      NaN          NaN          NaN         0          NaN

[3 rows x 36 columns]

Missing values in LotFrontage:

0     False
1     False
2     False
3     False
4     False
      ...
94    False
95     True
96    False
97    False
98    False
Name: LotFrontage, Length: 99, dtype: bool

updated LotFrontage values:

0      65.0
1      80.0
2      68.0
3      60.0
4      84.0
      ...
94     69.0
95    empty
96     78.0
97     73.0
```

q2

```
97     73.0
98     85.0
Name: LotFrontage, Length: 99, dtype: object

Missing values in Alley:

0     True
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
1     empty
2     empty
3     empty
4     empty
      ...
94    empty
95    empty
96    empty
97    empty
98    empty
Name: Alley, Length: 99, dtype: object
```

q2

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

[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, OverallQual, OverallCond, YearBuilt, YearRemodAdd, RoofStyle, RoofMatl, Exterior1st, Exterior2nd, MasVnrType, MasVnrArea, ExterQual, ExterCond, Foundation, BsmtQua
l, 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   Pave  empty      Reg  ...        TA       Slab    empty      NaN          NaN          NaN         0          NaN
39  40          90       RL        65.0     6040   Pave  empty      Reg  ...        TA      PConc    empty      NaN          NaN          NaN         0          NaN
90  91          20       RL        60.0     7200   Pave  empty      Reg  ...        TA       Slab    empty      NaN          NaN          NaN         0          NaN

[3 rows x 36 columns]

updated BsmtCond 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
l, 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   Pave  empty      Reg  ...        TA       Slab    empty    empty          NaN          NaN         0          NaN
39  40          90       RL        65.0     6040   Pave  empty      Reg  ...        TA      PConc    empty    empty          NaN          NaN         0          NaN
90  91          20       RL        60.0     7200   Pave  empty      Reg  ...        TA       Slab    empty    empty          NaN          NaN         0          NaN
```

q2

```
updated BsmtExposure 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
l, 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   Pave  empty      Reg  ...        TA       Slab    empty    empty        empty          NaN         0          NaN
39  40          90       RL        65.0     6040   Pave  empty      Reg  ...        TA      PConc    empty    empty        empty          NaN         0          NaN
90  91          20       RL        60.0     7200   Pave  empty      Reg  ...        TA       Slab    empty    empty        empty          NaN         0          NaN

[3 rows x 36 columns]

updated BsmtFinType1 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
l, 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   Pave  empty      Reg  ...        TA       Slab    empty    empty        empty        empty         0          NaN
39  40          90       RL        65.0     6040   Pave  empty      Reg  ...        TA      PConc    empty    empty        empty        empty         0          NaN
90  91          20       RL        60.0     7200   Pave  empty      Reg  ...        TA       Slab    empty    empty        empty        empty         0          NaN

[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
```

q2

```
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
RoofMatl         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
```

q3

```
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
```