Tab characters are used to separate variables in the data file. The data has 82 columns which include 23 nominal, 23 ordinal, 14 discrete, and 20 continuous variables (and 2 additional observation identifiers).

Order (Discrete): Observation number

PID (Nominal): Parcel identification number - can be used with city web site for parcel review.

**Lot Frontage (Continuous)**: Linear feet of street connected to property

**Lot Area (Continuous)**: Lot size in square feet

**Mas Vnr Area (Continuous)**: Masonry veneer area in square feet

**BsmtFin SF 1 (Continuous)**: Type 1 finished square feet

**BsmtFin SF 2 (Continuous)**: Type 2 finished square feet

**Bsmt Unf SF (Continuous)**: Unfinished square feet of basement area

**Total Bsmt SF (Continuous)**: Total square feet of basement area

**1st Flr SF (Continuous)**: First Floor square feet

**2nd Flr SF (Continuous)**: Second floor square feet

**Low Qual Fin SF (Continuous)**: Low quality finished square feet (all floors)

**Gr Liv Area (Continuous)**: Above grade (ground) living area square feet

**Misc Val (Continuous)**: $Value of miscellaneous feature

**SalePrice (Continuous)**: Sale price $$

**Bsmt Full Bath (Discrete)**: Basement full bathrooms

**Bsmt Half Bath (Discrete)**: Basement half bathrooms

**Full Bath (Discrete)**: Full bathrooms above grade

**Half Bath (Discrete)**: Half baths above grade

**Bedroom (Discrete)**: Bedrooms above grade (does NOT include basement bedrooms)

**Kitchen (Discrete)**: Kitchens above grade

**TotRmsAbvGrd (Discrete)**: Total rooms above grade (does not include bathrooms)

**Fireplaces (Discrete)**: Number of fireplaces

**Garage Yr Blt (Discrete)**: Year garage was built

**Garage Cars (Discrete)**: Size of garage in car capacity

**Mo Sold (Discrete)**: Month Sold (MM)

**Yr Sold (Discrete)**: Year Sold (YYYY)

**MS SubClass (Nominal)**: Identifies the type of dwelling involved in the sale.

020 1-STORY 1946 & NEWER ALL STYLES

030 1-STORY 1945 & OLDER

040 1-STORY W/FINISHED ATTIC ALL AGES

045 1-1/2 STORY - UNFINISHED ALL AGES

050 1-1/2 STORY FINISHED ALL AGES

060 2-STORY 1946 & NEWER

070 2-STORY 1945 & OLDER

075 2-1/2 STORY ALL AGES

080 SPLIT OR MULTI-LEVEL

085 SPLIT FOYER

090 DUPLEX - ALL STYLES AND AGES

120 1-STORY PUD (Planned Unit Development) - 1946 & NEWER

150 1-1/2 STORY PUD - ALL AGES

160 2-STORY PUD - 1946 & NEWER

180 PUD - MULTILEVEL - INCL SPLIT LEV/FOYER

190 2 FAMILY CONVERSION - ALL STYLES AND AGES

**MS Zoning (Nominal)**: Identifies the general zoning classification of the sale.

A Agriculture

C Commercial

FV Floating Village Residential

I Industrial

RH Residential High Density

RL Residential Low Density

RP Residential Low Density Park

RM Residential Medium Density

**Street (Nominal)**: Type of road access to property

Grvl Gravel

Pave Paved

**Alley (Nominal)**: Type of alley access to property

Grvl Gravel

Pave Paved

NA No alley access

**Lot Shape (Ordinal)**: General shape of property

Reg Regular

IR1 Slightly irregular

IR2 Moderately Irregular

IR3 Irregular

**Land Contour (Nominal)**: Flatness of the property

Lvl Near Flat/Level

Bnk Banked - Quick and significant rise from street grade to building

HLS Hillside - Significant slope from side to side

Low Depression

**Utilities (Ordinal)**: Type of utilities available

AllPub All public Utilities (E,G,W,& S)

NoSewr Electricity, Gas, and Water (Septic Tank)

NoSeWa Electricity and Gas Only

ELO Electricity only

**Lot Config (Nominal)**: Lot configuration

Inside Inside lot

Corner Corner lot

CulDSac Cul-de-sac

FR2 Frontage on 2 sides of property

FR3 Frontage on 3 sides of property

**Land Slope (Ordinal)**: Slope of property

Gtl Gentle slope

Mod Moderate Slope

Sev Severe Slope

**Neighborhood (Nominal)**: Physical locations within Ames city limits (map available)

Blmngtn Bloomington Heights

Blueste Bluestem

BrDale Briardale

BrkSide Brookside

ClearCr Clear Creek

CollgCr College Creek

Crawfor Crawford

Edwards Edwards

Gilbert Gilbert

Greens Greens

GrnHill Green Hills

IDOTRR Iowa DOT and Rail Road

Landmrk Landmark

MeadowV Meadow Village

Mitchel Mitchell

Names North Ames

NoRidge Northridge

NPkVill Northpark Villa

NridgHt Northridge Heights

NWAmes Northwest Ames

OldTown Old Town

SWISU South & West of Iowa State University

Sawyer Sawyer

SawyerW Sawyer West

Somerst Somerset

StoneBr Stone Brook

Timber Timberland

Veenker Veenker

**Condition 1 (Nominal)**: Proximity to various conditions

Artery Adjacent to arterial street

Feedr Adjacent to feeder street

Norm Normal

RRNn Within 200' of North-South Railroad

RRAn Adjacent to North-South Railroad

PosN Near positive off-site feature--park, greenbelt, etc.

PosA Adjacent to postive off-site feature

RRNe Within 200' of East-West Railroad

RRAe Adjacent to East-West Railroad

**Condition 2 (Nominal)**: Proximity to various conditions (if more than one is present)

Artery Adjacent to arterial street

Feedr Adjacent to feeder street

Norm Normal

RRNn Within 200' of North-South Railroad

RRAn Adjacent to North-South Railroad

PosN Near positive off-site feature--park, greenbelt, etc.

PosA Adjacent to postive off-site feature

RRNe Within 200' of East-West Railroad

RRAe Adjacent to East-West Railroad

**Bldg Type (Nominal)**: Type of dwelling

1Fam Single-family Detached

2FmCon Two-family Conversion; originally built as one-family dwelling

Duplx Duplex

TwnhsE Townhouse End Unit

TwnhsI Townhouse Inside Unit

**House Style (Nominal)**: Style of dwelling

1Story One story

1.5Fin One and one-half story: 2nd level finished

1.5Unf One and one-half story: 2nd level unfinished

2Story Two story

2.5Fin Two and one-half story: 2nd level finished

2.5Unf Two and one-half story: 2nd level unfinished

SFoyer Split Foyer

SLvl Split Level

**Overall Qual (Ordinal)**: Rates the overall material and finish of the house

10 Very Excellent

9 Excellent

8 Very Good

7 Good

6 Above Average

5 Average

4 Below Average

3 Fair

2 Poor

1 Very Poor

**Overall Cond (Ordinal)**: Rates the overall condition of the house

10 Very Excellent

9 Excellent

8 Very Good

7 Good

6 Above Average

5 Average

4 Below Average

3 Fair

2 Poor

1 Very Poor

**Year Built (Discrete)**: Original construction date

Year Remod/Add (Discrete): Remodel date (same as construction date if no remodeling or additions)

**Roof Style (Nominal)**: Type of roof

Flat Flat

Gable Gable

Gambrel Gabrel (Barn)

Hip Hip

Mansard Mansard

Shed Shed

**Roof Matl (Nominal)**: Roof material

ClyTile Clay or Tile

CompShg Standard (Composite) Shingle

Membran Membrane

Metal Metal

Roll Roll

Tar&Grv Gravel & Tar

WdShake Wood Shakes

WdShngl Wood Shingles

**Exterior 1 (Nominal)**: Exterior covering on house

AsbShng Asbestos Shingles

AsphShn Asphalt Shingles

BrkComm Brick Common

BrkFace Brick Face

CBlock Cinder Block

CemntBd Cement Board

HdBoard Hard Board

ImStucc Imitation Stucco

MetalSd Metal Siding

Other Other

Plywood Plywood

PreCast PreCast

Stone Stone

Stucco Stucco

VinylSd Vinyl Siding

Wd Sdng Wood Siding

WdShing Wood Shingles

**Exterior 2 (Nominal)**: Exterior covering on house (if more than one material)

AsbShng Asbestos Shingles

AsphShn Asphalt Shingles

BrkComm Brick Common

BrkFace Brick Face

CBlock Cinder Block

CemntBd Cement Board

HdBoard Hard Board

ImStucc Imitation Stucco

MetalSd Metal Siding

Other Other

Plywood Plywood

PreCast PreCast

Stone Stone

Stucco Stucco

VinylSd Vinyl Siding

Wd Sdng Wood Siding

WdShing Wood Shingles

**Mas Vnr Type (Nominal)**: Masonry veneer type

BrkCmn Brick Common

BrkFace Brick Face

CBlock Cinder Block

None None

Stone Stone

**Exter Qual (Ordinal)**: Evaluates the quality of the material on the exterior

Ex Excellent

Gd Good

TA Average/Typical

Fa Fair

Po Poor

**Exter Cond (Ordinal)**: Evaluates the present condition of the material on the exterior

Ex Excellent

Gd Good

TA Average/Typical

Fa Fair

Po Poor

**Foundation (Nominal)**: Type of foundation

BrkTil Brick & Tile

CBlock Cinder Block

PConc Poured Contrete

Slab Slab

Stone Stone

Wood Wood

**Bsmt Qual (Ordinal)**: Evaluates the height of the basement

Ex Excellent (100+ inches)

Gd Good (90-99 inches)

TA Typical (80-89 inches)

Fa Fair (70-79 inches)

Po Poor (<70 inches)

NA No Basement

**Bsmt Cond (Ordinal)**: Evaluates the general condition of the basement

Ex Excellent

Gd Good

TA Typical - slight dampness allowed

Fa Fair - dampness or some cracking or settling

Po Poor - Severe cracking, settling, or wetness

NA No Basement

**Bsmt Exposure (Ordinal)**: Refers to walkout or garden level walls

Gd Good Exposure

Av Average Exposure (split levels or foyers typically score average or above)

Mn Mimimum Exposure

No No Exposure

NA No Basement

**BsmtFin Type 1 (Ordinal)**: Rating of basement finished area

GLQ Good Living Quarters

ALQ Average Living Quarters

BLQ Below Average Living Quarters

Rec Average Rec Room

LwQ Low Quality

Unf Unfinshed

NA No Basement

**BsmtFinType 2 (Ordinal)**: Rating of basement finished area (if multiple types)

GLQ Good Living Quarters

ALQ Average Living Quarters

BLQ Below Average Living Quarters

Rec Average Rec Room

LwQ Low Quality

Unf Unfinshed

NA No Basement

**Heating (Nominal)**: Type of heating

Floor Floor Furnace

GasA Gas forced warm air furnace

GasW Gas hot water or steam heat

Grav Gravity furnace

OthW Hot water or steam heat other than gas

Wall Wall furnace

**HeatingQC (Ordinal)**: Heating quality and condition

Ex Excellent

Gd Good

TA Average/Typical

Fa Fair

Po Poor

**Central Air (Nominal)**: Central air conditioning

N No

Y Yes

**Electrical (Ordinal)**: Electrical system

SBrkr Standard Circuit Breakers & Romex

FuseA Fuse Box over 60 AMP and all Romex wiring (Average)

FuseF 60 AMP Fuse Box and mostly Romex wiring (Fair)

FuseP 60 AMP Fuse Box and mostly knob & tube wiring (poor)

Mix Mixed

**KitchenQual (Ordinal)**: Kitchen quality

Ex Excellent

Gd Good

TA Typical/Average

Fa Fair

Po Poor

**Functional (Ordinal)**: Home functionality (Assume typical unless deductions are warranted)

Typ Typical Functionality

Min1 Minor Deductions 1

Min2 Minor Deductions 2

Mod Moderate Deductions

Maj1 Major Deductions 1

Maj2 Major Deductions 2

Sev Severely Damaged

Sal Salvage only

**FireplaceQu (Ordinal)**: Fireplace quality

Ex Excellent - Exceptional Masonry Fireplace

Gd Good - Masonry Fireplace in main level

TA Average – Prefab Fireplace in main living area or Masonry one in basement

Fa Fair - Prefabricated Fireplace in basement

Po Poor - Ben Franklin Stove

NA No Fireplace

**Garage Type (Nominal)**: Garage location

2Types More than one type of garage

Attchd Attached to home

Basment Basement Garage

BuiltIn Built-In (Garage part of house - typically has room above garage)

CarPort Car Port

Detchd Detached from home

NA No Garage

**Garage Finish (Ordinal)**: Interior finish of the garage

Fin Finished

RFn Rough Finished

Unf Unfinished

NA No Garage

**Garage Area (Continuous)**: Size of garage in square feet

**Garage Qual (Ordinal)**: Garage quality

Ex Excellent

Gd Good

TA Typical/Average

Fa Fair

Po Poor

NA No Garage

**Garage Cond (Ordinal)**: Garage condition

Ex Excellent

Gd Good

TA Typical/Average

Fa Fair

Po Poor

NA No Garage

**Paved Drive (Ordinal)**: Paved driveway

Y Paved

P Partial Pavement

N Dirt/Gravel

**Wood Deck SF (Continuous)**: Wood deck area in square feet

**Open Porch SF (Continuous)**: Open porch area in square feet

**Enclosed Porch (Continuous)**: Enclosed porch area in square feet

**3-Ssn Porch (Continuous)**: Three season porch area in square feet

**Screen Porch (Continuous)**: Screen porch area in square feet

**Pool Area (Continuous)**: Pool area in square feet

**Pool QC (Ordinal)**: Pool quality

Ex Excellent

Gd Good

TA Average/Typical

Fa Fair

NA No Pool

**Fence (Ordinal)**: Fence quality

GdPrv Good Privacy

MnPrv Minimum Privacy

GdWo Good Wood

MnWw Minimum Wood/Wire

NA No Fence

**Misc Feature (Nominal)**: Miscellaneous feature not covered in other categories

Elev Elevator

Gar2 2nd Garage (if not described in garage section)

Othr Other

Shed Shed (over 100 SF)

TenC Tennis Court

NA None

**Sale Type (Nominal)**: Type of sale

WD Warranty Deed - Conventional

CWD Warranty Deed - Cash

VWD Warranty Deed - VA Loan

New Home just constructed and sold

COD Court Officer Deed/Estate

Con Contract 15% Down payment regular terms

ConLw Contract Low Down payment and low interest

ConLI Contract Low Interest

ConLD Contract Low Down

Oth Other

**Sale Condition (Nominal)**: Condition of sale

Normal Normal Sale

Abnorml Abnormal Sale - trade, foreclosure, short sale

AdjLand Adjoining Land Purchase

Alloca Allocation - two linked properties with separate deeds

Family Sale between family members

Partial not completed when last assessed (associated with New Homes)

SPECIAL NOTES:

There are 5 observations that an instructor may wish to remove from the data set before giving it to students (a plot of SALE PRICE versus GR LIV AREA will indicate them quickly). Three of them are true outliers (Partial Sales that likely don’t represent actual market values) and two of them are simply unusual sales (very large houses priced relatively appropriately). I would recommend removing any houses with more than 4000 square feet from the data set (which eliminates these 5 unusual observations) before assigning it to students.