

STA9797_Group_Project_Code

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```
# Load the dataset
df <- read.csv("data/AmesHousing.csv")

# Print the first few rows
head(df)
```

##	Order	PID	MS.SubClass	MS.Zoning	Lot.Frontage	Lot.Area	Street	Alley
## 1	1	526301100	20	RL	141	31770	Pave	<NA>
## 2	2	526350040	20	RH	80	11622	Pave	<NA>
## 3	3	526351010	20	RL	81	14267	Pave	<NA>
## 4	4	526353030	20	RL	93	11160	Pave	<NA>
## 5	5	527105010	60	RL	74	13830	Pave	<NA>
## 6	6	527105030	60	RL	78	9978	Pave	<NA>
##	Lot.Shape	Land.Contour	Utilities	Lot.Config	Land.Slope	Neighborhood		
## 1	IR1	Lvl	AllPub	Corner	Gtl	Names		
## 2	Reg	Lvl	AllPub	Inside	Gtl	Names		
## 3	IR1	Lvl	AllPub	Corner	Gtl	Names		
## 4	Reg	Lvl	AllPub	Corner	Gtl	Names		
## 5	IR1	Lvl	AllPub	Inside	Gtl	Gilbert		
## 6	IR1	Lvl	AllPub	Inside	Gtl	Gilbert		
##	Condition.1	Condition.2	Bldg.Type	House.Style	Overall.Qual	Overall.Cond		
## 1	Norm	Norm	1Fam	1Story	6	5		
## 2	Feedr	Norm	1Fam	1Story	5	6		
## 3	Norm	Norm	1Fam	1Story	6	6		
## 4	Norm	Norm	1Fam	1Story	7	5		
## 5	Norm	Norm	1Fam	2Story	5	5		
## 6	Norm	Norm	1Fam	2Story	6	6		
##	Year.Built	Year.Remod.Add	Roof.Style	Roof.Matl	Exterior.1st	Exterior.2nd		
## 1	1960	1960	Hip	CompShg	BrkFace	Plywood		
## 2	1961	1961	Gable	CompShg	VinylSd	VinylSd		
## 3	1958	1958	Hip	CompShg	Wd Sdng	Wd Sdng		
## 4	1968	1968	Hip	CompShg	BrkFace	BrkFace		
## 5	1997	1998	Gable	CompShg	VinylSd	VinylSd		
## 6	1998	1998	Gable	CompShg	VinylSd	VinylSd		
##	Mas.Vnr.Type	Mas.Vnr.Area	Exter.Qual	Exter.Cond	Foundation	Bsmt.Qual		
## 1	Stone	112	TA	TA	CBlock	TA		
## 2	None	0	TA	TA	CBlock	TA		
## 3	BrkFace	108	TA	TA	CBlock	TA		
## 4	None	0	Gd	TA	CBlock	TA		
## 5	None	0	TA	TA	PConc	Gd		
## 6	BrkFace	20	TA	TA	PConc	TA		
##	Bsmt.Cond	Bsmt.Exposure	BsmtFin.Type.1	BsmtFin.SF.1	BsmtFin.Type.2			

## 1	Gd	Gd	BLQ	639	Unf			
## 2	TA	No	Rec	468	LwQ			
## 3	TA	No	ALQ	923	Unf			
## 4	TA	No	ALQ	1065	Unf			
## 5	TA	No	GLQ	791	Unf			
## 6	TA	No	GLQ	602	Unf			
##	BsmtFin.SF.2	Bsmt.Unf.SF	Total.Bsmt.SF	Heating	Heating.QC	Central.Air		
## 1	0	441	1080	GasA	Fa	Y		
## 2	144	270	882	GasA	TA	Y		
## 3	0	406	1329	GasA	TA	Y		
## 4	0	1045	2110	GasA	Ex	Y		
## 5	0	137	928	GasA	Gd	Y		
## 6	0	324	926	GasA	Ex	Y		
##	Electrical	X1st.Flr.SF	X2nd.Flr.SF	Low.Qual.Fin.SF	Gr.Liv.Area	Bsmt.Full.Bath		
## 1	SBrkr	1656	0	0	1656	1		
## 2	SBrkr	896	0	0	896	0		
## 3	SBrkr	1329	0	0	1329	0		
## 4	SBrkr	2110	0	0	2110	1		
## 5	SBrkr	928	701	0	1629	0		
## 6	SBrkr	926	678	0	1604	0		
##	Bsmt.Half.Bath	Full.Bath	Half.Bath	Bedroom.AbvGr	Kitchen.AbvGr	Kitchen.Qual		
## 1	0	1	0	3	1	TA		
## 2	0	1	0	2	1	TA		
## 3	0	1	1	3	1	Gd		
## 4	0	2	1	3	1	Ex		
## 5	0	2	1	3	1	TA		
## 6	0	2	1	3	1	Gd		
##	TotRms.AbvGrd	Functional	Fireplaces	Fireplace.Qu	Garage.Type	Garage.Yr.Blt		
## 1	7	Typ	2	Gd	Attchd	1960		
## 2	5	Typ	0	<NA>	Attchd	1961		
## 3	6	Typ	0	<NA>	Attchd	1958		
## 4	8	Typ	2	TA	Attchd	1968		
## 5	6	Typ	1	TA	Attchd	1997		
## 6	7	Typ	1	Gd	Attchd	1998		
##	Garage.Finish	Garage.Cars	Garage.Area	Garage.Qual	Garage.Cond	Paved.Drive		
## 1	Fin	2	528	TA	TA	P		
## 2	Unf	1	730	TA	TA	Y		
## 3	Unf	1	312	TA	TA	Y		
## 4	Fin	2	522	TA	TA	Y		
## 5	Fin	2	482	TA	TA	Y		
## 6	Fin	2	470	TA	TA	Y		
##	Wood.Deck.SF	Open.Porch.SF	Enclosed.Porch	X3Ssn.Porch	Screen.Porch	Pool.Area		
## 1	210	62	0	0	0	0		
## 2	140	0	0	0	120	0		
## 3	393	36	0	0	0	0		
## 4	0	0	0	0	0	0		
## 5	212	34	0	0	0	0		
## 6	360	36	0	0	0	0		
##	Pool.QC	Fence	Misc.Feature	Misc.Val	Mo.Sold	Yr.Sold	Sale.Type	Sale.Condition
## 1	<NA>	<NA>	<NA>	0	5	2010	WD	Normal
## 2	<NA>	MnPrv	<NA>	0	6	2010	WD	Normal
## 3	<NA>	<NA>	Gar2	12500	6	2010	WD	Normal
## 4	<NA>	<NA>	<NA>	0	4	2010	WD	Normal
## 5	<NA>	MnPrv	<NA>	0	3	2010	WD	Normal

## 6	<NA>	<NA>	<NA>	0	6	2010	WD	Normal
##	SalePrice							
## 1	215000							
## 2	105000							
## 3	172000							
## 4	244000							
## 5	189900							
## 6	195500							