```
1 . import delimited "C:\Users\Administrator\Desktop\marketing_sales_data.csv", clear
  (encoding automatically selected: ISO-8859-2)
  (5 vars, 572 obs)

2 . describe

  Contains data
   Observations:           572
      Variables:             5
```

Variable name	Storage type	Display format	Value label	Variable label
tv	str6	%9s		**TV**
radio	double	%10.0g		**Radio**
socialmedia	double	%10.0g		**Social Media**
influencer	str5	%9s		**Influencer**
sales	double	%10.0g		**Sales**

```
  Sorted by:
       Note: Dataset has changed since last saved.

3 . summarize
```

Variable	Obs	Mean	Std. dev.	Min	Max
tv	**0**				
radio	**571**	**18.64647**	**9.65074**	**.1945765**	**48.87116**
socialmedia	**572**	**3.248471**	**2.195696**	**.0132301**	**11.26043**
influencer	**0**				
sales	**571**	**193.5169**	**90.51615**	**31.19941**	**358.4207**

```
4 . list in 1/10
```

	tv	radio	socialm~a	influe~r	sales
1.	**Low**	**1.2183539**	**1.2704439**	**Micro**	**90.054222**
2.	**Medium**	**14.949791**	**.27445075**	**Macro**	**222.74167**
3.	**Low**	**10.377258**	**.06198388**	**Mega**	**102.77479**
4.	**High**	**26.469274**	**7.0709451**	**Micro**	**328.23938**
5.	**High**	**36.876302**	**7.6186051**	**Mega**	**351.80733**
6.	**High**	**25.56191**	**5.4597181**	**Micro**	**261.96681**
7.	**High**	**37.263819**	**6.8865348**	**Nano**	**349.86158**
8.	**Low**	**13.187256**	**2.7663523**	**Macro**	**140.41529**
9.	**High**	**29.52017**	**2.3331574**	**Nano**	**264.59223**
10.	**Low**	**3.7732868**	**.1350743**	**Nano**	**55.674214**

```
5 . browse

6 . regress radio socialmedia
```

Source	SS	df	MS		
Model	**19932.031**	**1**	**19932.031**	Number of obs	= **571**
Residual	**33155.9396**	**569**	**58.2705442**	F(1, 569)	= **342.06**
				Prob > F	= **0.0000**
				R-squared	= **0.3755**
				Adj R-squared	= **0.3744**
Total	**53087.9706**	**570**	**93.1367905**	Root MSE	= **7.6335**

radio	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
socialmedia	**2.691208**	**.1455111**	**18.49**	**0.000**	**2.405404**	**2.977013**
_cons	**9.908327**	**.5703258**	**17.37**	**0.000**	**8.788126**	**11.02853**

```
 7 . regress socialmedia sales
```

Source	SS	df	MS	Number of obs	=	571
				F(1, 569)	=	222.80
Model	772.992061	1	772.992061	Prob > F	=	0.0000
Residual	1974.13421	569	3.46948016	R-squared	=	0.2814
				Adj R-squared	=	0.2801
Total	2747.12627	570	4.81951978	Root MSE	=	1.8627

socialmedia	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
sales	.0128654	.0008619	14.93	0.000	.0111725	.0145584
_cons	.7546128	.1841122	4.10	0.000	.3929902	1.116235

```
 8 . regress sales socialmedia radio
```

Source	SS	df	MS	Number of obs	=	570
				F(2, 567)	=	889.10
Model	3530881.95	2	1765440.97	Prob > F	=	0.0000
Residual	1125866.96	567	1985.65602	R-squared	=	0.7582
				Adj R-squared	=	0.7574
Total	4656748.91	569	8184.09299	Root MSE	=	44.561

sales	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
socialmedia	-.0283585	1.074836	-0.03	0.979	-2.139505	2.082788
radio	8.183868	.2452032	33.38	0.000	7.702251	8.665486
_cons	41.46709	4.12355	10.06	0.000	33.36779	49.56638

```
 9 . drop if missing(tv)| missing(sales)
   (2 observations deleted)

10 . graph box sales, over(tv) asyvars nooutsides box(1, color(blue)) ///
   option / not allowed
   r(198);

11 .
12 .     box(2, color(green)) box(3, color(orange)) ///
   command box is unrecognized
   r(199);

13 .
14 .     title("sales by tv Category") ///
   command title is unrecognized
   r(199);

15 .
16 .     ytitle("sales") ///
   command ytitle is unrecognized
   r(199);

17 .
18 .     note("") ///
   " invalid name
   r(198);

19 .
20 .     legend(order(1 "Low" 2 "Medium" 3 "High"))
   command legend is unrecognized
   r(199);
```

```
21 . encode tv, generate(tv_cat)

22 . tabulate tv_cat
```

TV	Freq.	Percent	Cum.
High	**176**	**30.88**	**30.88**
Low	**197**	**34.56**	**65.44**
Medium	**197**	**34.56**	**100.00**
Total	**570**	**100.00**	

```
23 . graph box sales, over(tv_cat)

24 . title("Sales by TV Category")
command title is unrecognized
r(199);

25 . graph box sales, over(tv_cat) /// title("Sales by TV Category")
option / not allowed
r(198);

26 . graph box sales, over(tv_cat) ///
option / not allowed
r(198);

27 .
28 . title("Sales by TV Category") ///
command title is unrecognized
r(199);

29 .
30 . box(1, color(blue)) ///
command box is unrecognized
r(199);

31 .
32 . box(2, color(red)) ///
command box is unrecognized
r(199);

33 .
34 . box(3, color(green))
command box is unrecognized
r(199);

35 . graph box sales, over(tv_cat) title("Sales by TV Category")

36 . box(1, color(blue))
command box is unrecognized
r(199);

37 . graph box sales, over(tv_cat) title("Sales by TV Category") box(1, color(blue)) box(2, color(red)) box(3, color(gree

38 . graph box sales, over(tv_cat) box(1, color(blue)) box(2, color(red)) box(3, color(green))

39 . graph box sales, over(tv_cat) title("Sales by TV Category") box1opts(fcolor(blue)) box2opts(fcolor(red)) box3opts(fc
option box1opts() not allowed
r(198);

40 . graph box sales, over(tv_cat) asyvars title("Sales by TV Category") boxopts(1, fcolor(blue)) boxopts(2, fcolor(red))
option boxopts() not allowed
r(198);
```

```
41 . graph box sales, over(tv_cat) asyvars title("Sales by TV Category") boxopts(1, fcolor(blue)) boxopts(2, fcolor(red))
option boxopts() not allowed
r(198);

42 . graph box sales, over(tv_cat) title("Sales by TV Category") asyvars

43 . 111///
111 is not a valid command name
r(199);

44 . 111                                                              ///
111 is not a valid command name
r(199);

45 . graph box sales, over(influencer) asyvars ///
option / not allowed
r(198);

46 .
47 .     title("Sales by Influencer") ///
command title is unrecognized
r(199);

48 .
49 .     legend(title("Influencer"))
command legend is unrecognized
r(199);

50 . set output error off
varlist not allowed
r(101);

51 . estimates table
```

Variable	Active
socialmedia	**-.02835854**
radio	**8.1838683**
_cons	**41.467087**

```
52 . estimates store model1

53 . estimates restore model1
(results model1 are active now)

54 . estimates replay
```

Model **model1**

Source	SS	df	MS		
Model	**3530881.95**	**2**	**1765440.97**	Prob > F	**0.0000**
Residual	**1125866.96**	**567**	**1985.65602**	R-squared	**0.7582**
Total	**4656748.91**	**569**	**8184.09299**	Adj R-squared	**0.7574**
				Root MSE	**44.561**

Number of obs	=	**570**			
F(2, 567)	=	**889.10**			

sales	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
socialmedia	**-.0283585**	**1.074836**	**-0.03**	**0.979**	**-2.139505**	**2.082788**
radio	**8.183868**	**.2452032**	**33.38**	**0.000**	**7.702251**	**8.665486**
_cons	**41.46709**	**4.12355**	**10.06**	**0.000**	**33.36779**	**49.56638**

```
55 . estat summarize

     Estimation sample regress                 Number of obs =        569
```

Variable	Mean	Std. dev.	Min	Max
sales	**193.4573**	**90.32854**	**31.19941**	**358.4207**
socialmedia	**3.240304**	**2.19812**	**.0132301**	**11.26043**
radio	**18.58797**	**9.616712**	**.1945765**	**48.87116**

```
56 . estat ic

   Akaike's information criterion and Bayesian information criterion
```

Model	N	ll(null)	ll(model)	df	AIC	BIC
model1	**570**	**-3376.13**	**-2971.497**	**3**	**5948.994**	**5962.031**

```
   Note: BIC uses N = number of observations. See [R] IC note.

57 . vif
```

Variable	VIF	1/VIF
radio	**1.60**	**0.626056**
socialmedia	**1.60**	**0.626056**
Mean VIF	**1.60**	

```
58 . estat hettest

   Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
   Assumption: Normal error terms
   Variable: Fitted values of sales

   H0: Constant variance

       chi2(1) =   0.12
   Prob > chi2 = 0.7264

59 .
```