

Group 16 R2

$$7.5/12 \rightarrow 3.75$$

informative title

### 1. Formatting:

all margins 2.5cm

member names on all pgs

12 pt size

all pages numbered

**no raw R code or output**

no blurry plots (**NOT png**)

~~max 7 pages~~

### 2. Introduction/Background:

brief statement of scientific question

all variables defined

### 3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

### 4. Model fitting:

state how model fitted (ie, LS)

~~CLEARLY describe how model selected~~

define all terms

### 5. Model assessment:

~~CLEARLY state model assumptions:~~

~~what is the 'full model'?~~

1. errors have mean 0

2. errors are homoscedastic (same variance)

3. errors are uncorrelated

4. errors are normally distributed

carry out assessment (graphics):

qq normal plot of residuals,  
residuals vs. fitted

Square

Don't need histograms

④ If your model includes interactions, you must include all marginal terms (ie, variables in the interactions)

4.75

explain  
& interpret  
these plots

*model incorrect*

6. Write out final estimated model **mathematically**

hat on response variable

max **2 sig digits** on coeffs

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

8. Conclusions

recap analysis

*+ interpret*  
(state main findings)

9. Overall presentation (clarity of explanations, appropriate citations / references):

poor

**satisfactory**

good

excellent

- references for data and methods

- spell check

- modeling is superficial, try several models

then select one and explain how.

- introduce model before estimated fitted model

- Table 4 not clear

Group 17 12

$$7.75/12 \rightarrow 3.875/6$$

### 1. Formatting:

0.5/0.5

all margins 2.5cm

informative title

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

max 7 pages OK

no blurry plots (**NOT png**)

### 2. Introduction/Background:

1/1

brief statement of scientific question

all variables defined

1/2

### 3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

*show all summary stats in a Table*

### 4. Model fitting:

state how model fitted (ie, LS)

**CLEARLY** describe how model selected

define all terms

*what does stepwise forward/backward mean? criteria?*

- too many digits

- Did you try interactions?

### 5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

*square*

*explain and interpret* {

*Table of Reg output; write out model(s)  
before estimation*

9.25

0.75/1

6. Write out final estimated model **mathematically**

which is your final model?

hat on response variable

max **2 sig digits** on coeffs

0.75/1

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

1.25/1.5

8. Conclusions

(expand  
recap analysis)

state main findings

0.75/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- refs methods

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Group 18 Q2

9.25/12 → 4.75/6

1. Formatting:

8.5 / 0.5  
all margins 2.5cm  
12 pt size

**no raw R code or output**

max 7 pages ok

informative title

member names on all pgs

all pages numbered

no blurry plots (**NOT png**)

good job!

2. Introduction/Background:

brief statement of scientific question

all variables defined

1.75/2 3. EDA:

univariate numerical

univariate graphical

don't need fig 1

bivariate numerical (cor)

bivariate graphical

ALL vars

1.25/2 4. Model fitting:

state how model fitted (ie, LS)

CLEARLY describe how model selected

define all terms

AIC

1.5/2 5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

interpret these plots  
carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

what is stepwise?

F-test incorrectly described; want to know if submodel not (significantly) worse

errors, not models, satisfy these

you assess assumptions, not verify,

④ first do model fitting, THEN explore interactions, etc

- Don't re-name vars ( $x_1, x_2$ , etc), use original names
- show table(s) of reg. results
- I think your final model is reversed - check your F-test

1 / 1  
6. Write out final estimated model **mathematically**

hat on response variable

max **2 sig digits** on coeffs

0.75 / 1  
7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.75 / 1.5  
8. Conclusions

recap analysis

+ interpret  
state main findings

0.75 / 1  
9. Overall presentation (clarity of explanations, appropriate citations / references):

poor

satisfactory

good

excellent

- need refs (data + methods)

- it is very important to check your F test;

The NUL hyp is that the submodel is good enough; ie,  $H_0: \beta_1 = \beta_2 = \dots = \beta_n = 0$  against the alt  $A$ : at least one of the  $\beta$ 's  $\neq 0$

⇒ So a small p-value is evidence against the null (smaller model)

⇒ need the bigger model.

You could do a stepwise, or just test some submodels "by hand" to reduce from the full model

3.25

Group 99 R2 Brock Vidmukh Yakovchuk 4  
9.25/12 → 1.625/6

1. Formatting:

0.5/0.5

all margins 2.5cm

informative title

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

max 7 pages

no blurry plots (**NOT png**)

Y1

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

2/2

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

(square)

4. Model fitting

1.25/2

state how model fitted (ie, LS)

- write model mathematically  
(top p. 4)

CLEARLY describe how model selected

define all terms

AIC stepwise criterion

5. Model assessment:

1.25/2

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

Explain + interpret

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

square

- Either don't use Durbin Watson or explain

1/1 (ok)

6. Write out final estimated model **mathematically**

hat on response variable

max 2 sig digits on coeffs

0.75/1

7. Plots:

label size (not too small)  
placement

(also for tables  
captions)

NOT BLURRY

1/1.5

8. Conclusions

recap analysis

state main findings

0.5/1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- refs (data and methods)

- write p-value 0.000 as  $0.000 \times 10^{-m}$

- Did you try any interaction models?

- Difference between Table 3 & 4?

3.25

Group 20 RL

6.5 / 2 → 3.25 / 6  
(2 submissions - only need 1)

1. Formatting:

all margins 2.5cm

0.5/0.5

12 pt size

- Don't need course info  
informative title

member names on all pgs

no raw R code or output

all pages numbered

max 7 pages OK

no blurry plots (NOT png)

- Don't need date

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

univariate graphical

put all stats in a table

put as a correlation matrix, not in text

bivariate numerical (cor)

bivariate graphical

4. Model fitting:

state how model fitted (ie, LS)

CLEARLY describe how model selected

define all terms

5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0

2. errors are homoscedastic (same variance)

3. errors are uncorrelated

4. errors are normally distributed

carry out assessment (graphics):

qq normal plot of residuals,  
residuals vs. fitted

not done?

- interpret

(+ explain)

- don't need scatterplots Fig 2

0.75 / 1

6. Write out final estimated model **mathematically**

hat on response variable

max **2 sig digits** on coeffs

0.5 / 1

7. Plots:

you don't refer to  
fig 3 in text

(label size (not too small))

captions

**NOT BLURRY**

(not completely  
correct)

placement

be more explicit  
state main findings  
and direct

0.75 / 1.5

8. Conclusions

recap analysis

0.5 / 1

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- refs (data and methods)

- use single column format

- Fig P.5? not labeled or captioned,  
looks like it belongs in EDA section

- why is there text before the intro?

- your report is very hard to follow, please  
define everything and put things into  
a logical order

0 Group 21 R2

9.5/12  $\rightarrow$  4.75/6  
good job

### 1. Formatting:

all margins 2.5cm

informative title

0.5/0.5

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

max 7 pages

no blurry plots (NOT png)

- Don't need date

0.75/1

### 2. Introduction/Background:

brief statement of scientific question

(give background for  
the specific context)

all variables defined

1.75/2

### 3. EDA: Exploratory (+ below)

univariate numerical

All vars

univariate graphical

bivariate numerical (cor)

bivariate graphical

histograms not boxplots

1.5/2

### 4. Model fitting:

state how model fitted (ie, LS)

CLEARLY describe how model selected

define all terms

AIC, stepwise procedure

1.5/2

### 5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

don't need  
plot (a)

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

square + interpret

and (b) is Q-Q not hist (Theoretically should be 0 under linearity)  
- Don't have to do a test for homoscedasticity, but if you do you have to explain the test

6. Write out final estimated model **mathematically**

**hat** on response variable

**max 2 sig digits** on coeffs

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

8. Conclusions

recap analysis

+ interpret  
state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- cite primary refs (not course slides),  
and you should cite all refs in the text
- use only primary, specific (not general)  
refs (data and methods)

o Group 99 82

6.25 / 12 → 3.125 / 6

1. Formatting:

0.5/0.5

all margins 2.5cm

12 pt size

**no raw R code or output**

~~max 7 pages~~ 81

informative title

member names on all pgs

all pages numbered

no blurry plots (NOT png)

0.75/1  
2. Introduction/Background:

brief statement of scientific question

all variables defined

*(in the specific context  
of this problem)*

1.25/2  
3. EDA:

univariate numerical

univariate graphical

bivariate numerical (cor)

correlation matrix

bivariate graphical

0.75/2  
4. Model fitting:

state how model fitted (ie, LS)

CLEARLY describe how model selected

define all terms

- too many digits

5. Model assessment:

0.25/2

CLEARLY state model assumptions:

1. errors have mean 0

2. errors are homoscedastic (same variance)

3. errors are uncorrelated

4. errors are normally distributed

carry out assessment (graphics):

qq normal plot of residuals,  
residuals vs. fitted

*square + explain  
& interpret*

④ analysis is superficial

- the plots don't 'verify' the assumptions,  
they 'support' them - but you need to  
explain why

6. Write out final estimated model **mathematically**
- 0.5 / |  
| hat on response variable  
| max 2 sig digits on coeffs
- 0.5 / |  
| 7. Plots:  
| label size (not too small)  
| placement  
| captions  
| **NOT BLURRY**  
| *interpret + explain*  
| state main findings
- 0.75 / |  
| 8. Conclusions  
| recap analysis
- 0.5 / |  
| 9. Overall presentation (clarity of explanations, appropriate citations / references):  
| poor      **satisfactory**      good      excellent  
-refs at end, methods + data

2.25

Group 23 Q2

8/12 → 9/6

good job!

1. Formatting:

all margins 2.5cm

0.5/0.5  
12 pt size

**no raw R code or output**

max 7 pages ok

- no blue writing

informative title

member names on all pgs

all pages numbered

no blurry plots (NOT png)

1/1  
2. Introduction/Background:

brief statement of scientific question

all variables defined

- what are unions shop and  
sector A?

what do colors  
correspond  
to?

1.75/2  
3. EDA: (write Exploratory Data Analysis)

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

1/2  
4. Model fitting:

state how model fitted (ie, LS)

CLEARLY describe how model selected

define all terms

- did you try any interactions?  
stepwise, etc. how do you normalize

5. Model assessment:

1.25/2

CLEARLY state model assumptions:

- explain + interpret plots
1. errors have mean 0
  2. errors are homoscedastic (same variance)
  3. errors are uncorrelated
  4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

square

- only need for  
your final model

④ your description is superficial, also put intercept  
Fig 4 before Final estimated model - also, what is first  
your final model - not clear

\* QQ plot does not show how good a model is, only whether what  
you are plotting is (approx) normally dist.

- 0.5/1 just!
6. Write out final estimated model **mathematically**
- hat on response variable max 2 sig digits on coeffs
- 0.5/1 7. Plots:
- label size (not too small) captions  
placement
- 1/1.5 8. Conclusions
- recap analysis state main findings
- 0.5/1 9. Overall presentation (clarity of explanations, appropriate citations / references) :
- poor satisfactory good excellent
- refs (data + methods)

+ see other side

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Group 26 R2

5.5/12 → 2.75/6

1. Formatting:

all margins 2.5cm

informative title

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

max 7 pages *ok*

no blurry plots (**NOT** png)

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

*all vars*

*att pairwise*

4. Model fitting:

state how model fitted (ie, LS)

*define meaning of  $X_1, \dots$*

CLEARLY describe how model selected

*model top p.4*

*Beta-1*

*define all terms*

5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

- your conclusions bottom p.3 difficult to understand  
what you mean

3-25

0.25

6. Write out final estimated model **mathematically**

hat on response variable

max **2 sig digits** on coeffs

0.25

7. Plots:

label size (not too small)

placement

captions

**NOT BLURRY**

0.75

8. Conclusions

recap analysis

+ *interpret*

(state main findings)

0.5

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- refs (data + methods)

- all figures and tables should have a caption and be numbered (and cited in the text)

2.25

Group 25 Q2  $6.25/12 \rightarrow 3.125/6$

## 1. Formatting:

all margins 2.5cm

## informative title

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

~~max 7 pages~~ *ok*

no blurry plots (**NOI**.png)

## 2. Introduction/Background:

### **brief statement of scientific question**

all variables defined

### 3. EDA:

## univariate numerical

## bivariate numerical (cor)

## univariate graphical

### bivariate graphical

#### 4. Model fitting:

state how model fitted (ie, LS)

~~CLEARLY describe how model selected~~

## define all terms

## 5. Model assessment.

#### **CLEARLY state model assumptions:**

1. errors have mean 0
  2. errors are homoscedastic (same variance)
  3. errors are uncorrelated
  4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

~~not done~~

residuals vs. fitted  
Table 1 should be here, not later

- Table 1 should be here, not far
- These results need to be associated with a model, this table lacks context

35

0.75

6. Write out final estimated model **mathematically**

hat on response variable

max **2 sig digits** on coeffs

0.5

7. Plots:

label size (not too small)

placement

captions for plots and tables  
should be descriptive  
**NOT BLURRY**

1 / 1.5

8. Conclusions

recap analysis

state main findings

0.5

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- need refs (data + methods)

- cite the refs in your report

2.75

\* Don't need to re-do, will be ~~676~~

\* Group 26 R2

~~10/12 → 9/10~~

Don't need ~~2<sup>nd</sup>~~ line

### 1. Formatting:

all margins 2.5cm

informative title

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

max 7 pages OK

no blurry plots (NOT png)

- Don't need date

### 2. Introduction/Background:

brief statement of scientific question

all variables defined

### 3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical (OK)

bivariate graphical

### 4. Model fitting:

state how model fitted (ie, LS)

too many digits

CLEARLY describe how model selected

+ stepwise, etc

define all terms

VIF, Box-Cox, etc

### 5. Model assessment:

CLEARLY state model assumptions:

(But don't need to do)

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

If you do Shapiro-Wilk's test  
you must explain this  
should be square  
(interpret)

\* your final model is not correct; since you  
have an interaction, both marginal terms  
must be included - you don't have Unionshop

6. Write out final estimated model **mathematically**

hat on response variable

max **2 sig digits** on coeffs

7. Plots:

label size (not too small)

(make informative  
captions)

placement

**NOT BLURRY**

8. Conclusions

recap analysis

state main findings

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- refs (data + methods)

- tables have too many digits

- either don't re-name vars or put X-name  
in table beside original name - the way  
you have it makes it difficult to follow

3.75 + 1 (Box-Cox)

Group 27 Q2

$$5.25 / 12 \rightarrow 2.625 / 6$$

### 1. Formatting:

all margins 2.5cm

12 pt size

**no raw R code or output**

max 7 pages *ok*

informative title

member names on all pgs

all pages numbered

no blurry plots (**NOT** png)

### 2. Introduction/Background:

brief statement of scientific question

all variables defined

### 3. EDA:

univariate numerical

univariate graphical

bivariate numerical (cor)

bivariate graphical

### 4. Model fitting:

This is superficially explain model selection procedure  
state how model fitted (ie, LS) → models should have square intercepts, unless you provide good reason  
CLEARLY describe how model selected  
define all terms - too much extraneous output, put relevant output in tables

### 5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0

2. errors are homoscedastic (same variance)

3. errors are uncorrelated

4. errors are normally distributed

carry out assessment (graphics):

qq normal plot of residuals,  
residuals vs. fitted

) square

(+ explain + interpret  
more clearly)

3.25

0.5/1

6. Write out final estimated model **mathematically**

+ intercept

hat on response variable

max 2 sig digits on coeffs

0.75/1

7. Plots:

label size (not too small)

placement

captions

NOT BLURRY

1.5/1.5

8. Conclusions

recap analysis

+ explain and interpret

state main findings

0.25/1

9. Overall presentation (clarity of explanations, appropriate citations / references):

poor

satisfactory

good

excellent

- refs (data + methods)

- each figure (and table) should have a caption

and a number (and refer to it in the text)

- no Raw R!! (+ too many digits)

④ Group 28 R9

8.75 / 12

→ 4.375 / 6 good job!

#### 1. Formatting:

all margins 2.5cm

0.5 / 0.5  
(12 pt size)

no raw R code or output

max 7 pages

- Don't need course description
- informative title (first line)
- Don't need EPFL and email addresses
- member names on all pgs

all pages numbered

no blurry plots (NOT png)

#### 2. Introduction/Background:

- Don't need first sentence  
brief statement of scientific question

all variables defined

2 / 2 ④ 3. EDA: (ok)

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

- Don't need Fig 1 B

#### 4. Model fitting:

state how model fitted (ie, LS)

define the X's

CLEARLY describe how model selected

define all terms

#### 5. Model assessment:

- Table 2 AFTER Explanation and BEFORE assessment

- put after model fitting/selection

stepwise?  
explain  
+ criteria?

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

1.25 / 2

carry out assessment (graphics):

qq normal plot of residuals,  
residuals vs. fitted

not done?

You 'assess' normality NOT 'verify'

④ Where do you define the model with interactions?

5.75

- Table 3 should include p-values

1/1 6. Write out final estimated model **mathematically**

(ok)  
hat on response variable

max **2 sig digits** on coeffs

0.75/1 7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.75/1.5 8. Conclusions

recap analysis

→ explain but don't  
state main findings  
+ make clear over-interpret  
results

9. Overall presentation (clarity of explanations, appropriate citations / references) :

0.5/1 poor

satisfactory

good

excellent

what you mean by  
'First' and 'Second'  
models

Group 99 R2 7.5 / 12 → 3.75 / 6

1. Formatting:

all margins 2.5cm

informative title

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

max 7 pages ok

no blurry plots (NOT png)

Dont need names 2x on p.

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

univariate numerical

put all stats in table

cor matrix

univariate graphical

- Don't need Fig 5

bivariate numerical (cor)

bivariate graphical

(square)

4. Model fitting:

state how model fitted (ie, LS)

First introduce model

CLEARLY describe how model selected

THEN estimate it

define all terms

stepwise, AIC, F-stat for what test?

p-value?

5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

These should be square  
+ interpret/explain these  
plots

- either don't do Durbin-Watson or explain
- 'supported' not 'verified'

6. Write out final estimated model **mathematically**

0.5 // **hat** on response variable

max **2 sig digits** on coeffs

0.5 // 7. Plots:

label size (not too small)

captions

1.25 // placement

(*layout*) (Fig 1, 2, 3)

**NOT BLURRY**

1.5 // 8. Conclusions

(*more completely*)  
recap analysis

state main findings

0.5 // 9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- need refs (data + methods)

Group 30 R2 5/12 → 2.5/6

1. Formatting:

0/0.5

all margins 2.5cm

informative title

(12 pt size)

member names on all pgs

**no raw R code or output**

all pages numbered

max 7 pages OK

no blurry plots (NOT png)

2. Introduction/Background:

brief statement of scientific question

all variables defined

0.75/2

3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

0.5/2

state how model fitted (ie, LS)

- square  
- superficial explanation

CLEARLY describe how model selected

→ fig 4 = ??

define all terms

- no on X-vars

5. Model assessment:

0.75/2

CLEARLY state model assumptions:

1. errors have mean 0

2. errors are homoscedastic (same variance)

3. errors are uncorrelated

4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

↳ not done?

0.75 //

6. Write out final estimated model **mathematically** (\*)

hat on response variable

max 2 sig digits on coeffs

0.75 //

7. Plots:

label size (not too small)

captions

placement

**NOT BLURRY**

0.25 // 1.5

8. Conclusions

+ explain + interpret  
state main findings

recap analysis

0.25 //

9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- refs (data + methods)

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- No. raw R !!

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(\*) If number in parentheses in final eq. are  
SEs, put under coeffs

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- Put all relevant reg out put in table(s)

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Group 65 Q2

$8.75/12 \rightarrow 4.375/6$

good job!

### 1. Formatting:

all margins 2.5cm

informative title

12 pt size

member names on all pgs

**no raw R code or output**

all pages numbered

~~max 7 pages~~ OK

no blurry plots (**NOT png**)

### 2. Introduction/Background:

brief statement of scientific question

all variables defined

- put var names in table  
rather than  $v_1, v_2, \dots$

### 3. EDA:

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

### 4. Model fitting:

state how model fitted (ie, LS)

- define model mathematically before fitting

CLEARLY describe how model selected

define all terms

AIC, forward, backward...  
don't need to say what R fns you use,  
explain the methods

### 5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

carry out assessment (graphics):

qq normal plot of residuals,  
residuals vs. fitted

(square?)

explain + interpret plots

6. Write out final estimated model **mathematically**

hat on response variable

max **2 sig digits** on coeffs

0.75 // 1  
7. Plots:

label size (not too small)  
placement

captions

**NOT BLURRY**

1.5 // 1.5  
8. Conclusions

recap analysis

state main findings

0.5 // 1  
9. Overall presentation (clarity of explanations, appropriate citations / references) :

poor

satisfactory

good

excellent

- refs (data + methods)

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3.25

Group 20 R2  $7.75/12 \rightarrow 3.875/6$

1. Formatting:

all margins 2.5cm	informative title
12 pt size	member names on all pgs
<b>no raw R code or output</b>	all pages numbered
max <del>7</del> pages <del>OK</del>	no blurry plots ( <b>NOT</b> png)

2. Introduction/Background:

brief statement of scientific question

all variables defined

3. EDA:

p.3 - Too much blank space

univariate numerical

bivariate numerical (cor)

univariate graphical

bivariate graphical

4. Model fitting:

state how model fitted (ie, LS)

- Define model mathematically  
(not using R formula)

CLEARLY describe how model selected

- Include relevant  
reg output in table

define all terms AIC, etc

5. Model assessment:

CLEARLY state model assumptions:

1. errors have mean 0
2. errors are homoscedastic (same variance)
3. errors are uncorrelated
4. errors are normally distributed

carry out assessment (graphics):  
qq normal plot of residuals,  
residuals vs. fitted

square + explain  
These plots

④ Linearity assumption better expressed as: outcome  
as linear fn. of the parameters

- 0.5 / 1  
 - I don't see how your model can be correct if union is a factor with 2 levels and sector A numeric
6. Write out final estimated model **mathematically**  
 hat on response variable max 2 sig digits on coeffs
- 0.75 / 1  
 7. Plots:  
 label size (not too small) captions  
 placement
- 0.75 / 1.5  
 8. Conclusions  
 recap analysis
- 0.5 / 1  
 9. Overall presentation (clarity of explanations, appropriate citations / references):
- poor satisfactory good excellent

**NOT BLURRY**

(*correct interpretation*)  
state main findings

- refs (data + methods)

- check your final model; it doesn't make sense to me

- you need to explain what you are doing