

SHETH L.U.J. AND SIR M.V. COLLEGE

SUBJECT:Data Analysis with R

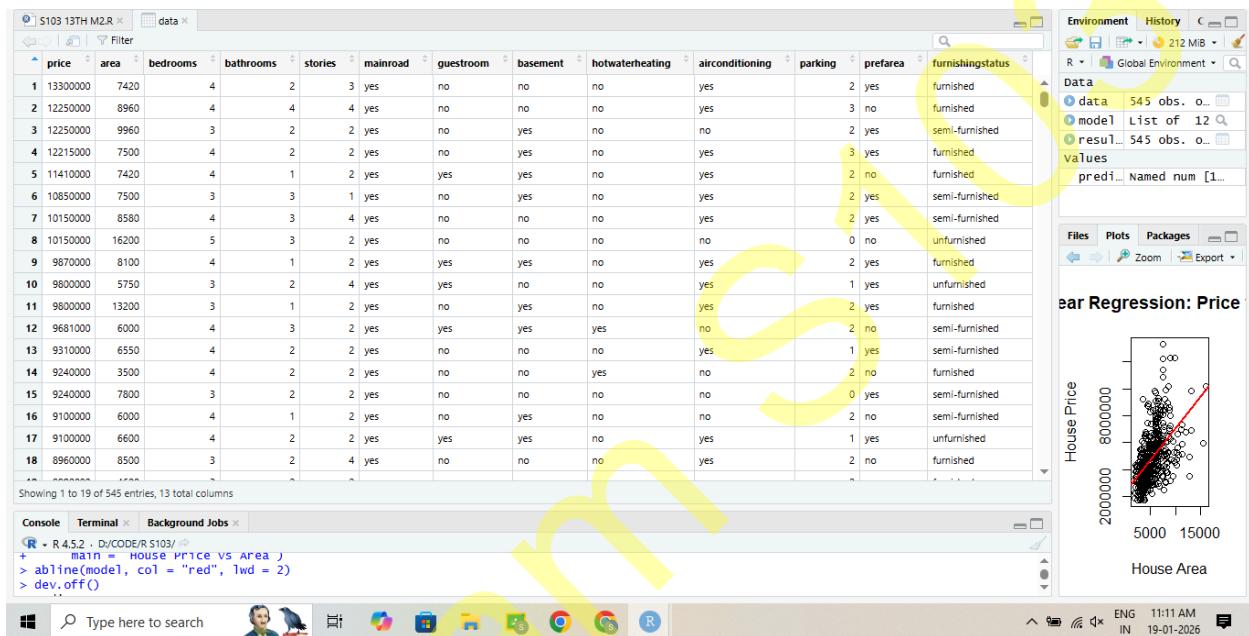
Aim: 13 Performing linear regression analysis using lm() (R).

14 Performing logistic regression using glm() (R).

15 Exporting results into external files (Excel, CSV, PDF) using write.csv() and writexl ®

13th output:

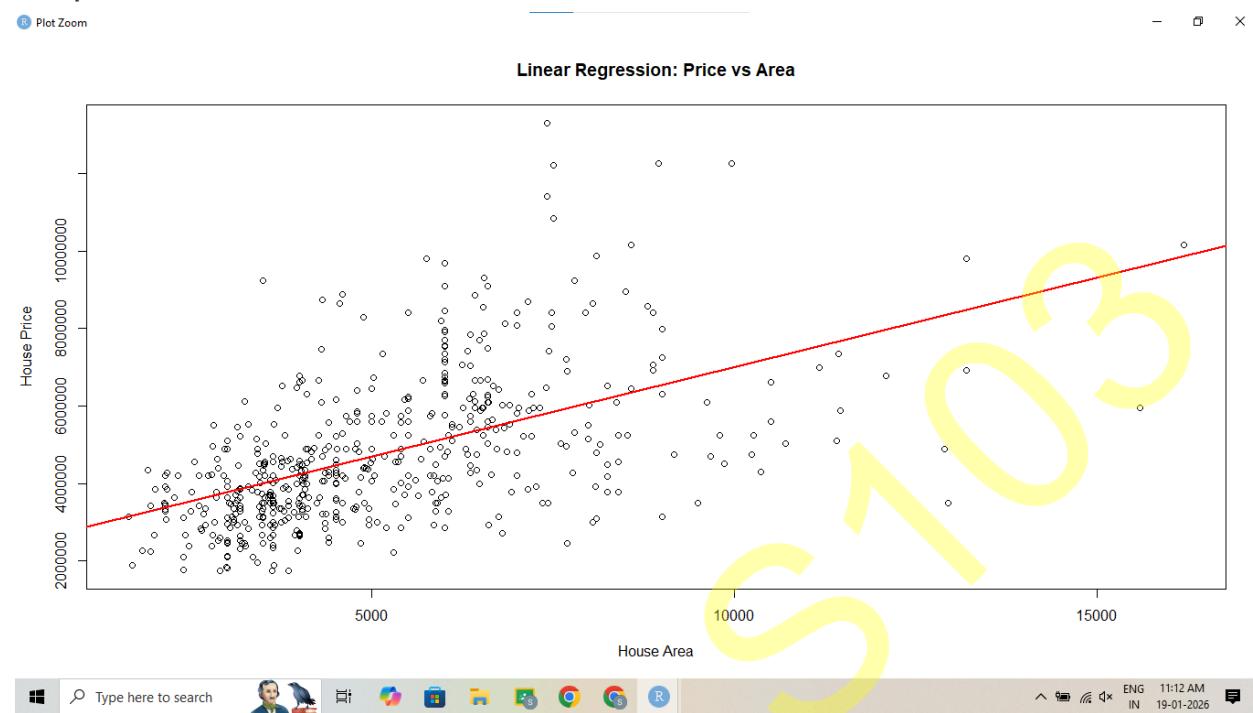
Dataset



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Graph



Export import

<input type="checkbox"/>	.RData	153.9 KB	Jan 18
<input type="checkbox"/>	.Rhistory	18.4 KB	Jan 18
<input type="checkbox"/>	Airbnb_Open_Data.csv	34.2 MB	Aug 17
<input type="checkbox"/>	data.csv	1.4 MB	Sep 17
<input type="checkbox"/>	House_Price_Predictions.csv	16.5 KB	Jan 18
<input type="checkbox"/>	House_Price_Predictions.xlsx	16.6 KB	Jan 18
<input type="checkbox"/>	House_Price_Regression_Plot.pdf	31.6 KB	Jan 18
<input type="checkbox"/>	Housing.csv	29.3 KB	Jan 18
<input type="checkbox"/>	insurance.csv	54.3 KB	Dec 17
<input type="checkbox"/>	Pokemon.csv	43 KB	Sep 17
<input type="checkbox"/>	R S103.Rproj	218 B	Jan 18
<input type="checkbox"/>	S103 8TH M2.R	435 B	Dec 17
<input type="checkbox"/>	S103 9TH M2.R	505 B	Dec 17

11:13 AM 19-01-2026

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14th output

Dataset

The screenshot shows the RStudio interface. In the top-left, there are tabs for 'S103 13TH M2.R', 'S103 14TH M2.R', and 'data'. The main area displays a data frame with columns: Age, Income, Gender, Marital_Status, Education_Level, Purchase_History, Product_Interest, and Purchase. Below the data frame, it says 'Showing 1 to 20 of 3,000 entries, 8 total columns'. At the bottom, there's a console tab with the command '`> head(results)`' and a search bar.

Environment

- `data`: 3000 obs. of 8 variables
- `model`: Large glm (30 elements, 2 MB)
- `results`: 3000 obs. of 3 variables

Data

- `predicted_class`: Named num [1:3000] 1 1 0 0 1 1 0 0 0 1 ...
- `predicted_prob`: Named num [1:3000] 0.553 0.548 0.492 0.477 ...

Files

- `.RData`
- `Rhistory`
- `Airbnb_Open_Data.csv`
- `data.csv`
- `House_Price_Predictions.csv`
- `House_Price_Predictions.xlsx`
- `House_Price_Regression_Plot.pdf`
- `Housing.csv`
- `insurance.csv`
- `Logistic_Regression_Customer_Purchase_Res`
- `Pokemon.csv`
- `R.S103.Rproj`
- `S103 8TH M2.R`

Results

The screenshot shows the RStudio interface. In the top-left, there are tabs for 'S103 13TH M2.R', 'S103 14TH M2.R', and 'data'. The main area displays a data frame with columns: Actual, Predicted, and Probability. Below the data frame, it says 'Showing 1 to 18 of 3,000 entries, 3 total columns'. At the bottom, there's a console tab with the command '`> head(results)`' and a search bar.

Environment

- `data`: 3000 obs. of 8 variables
- `model`: Large glm (30 elements, 2 MB)
- `results`: 3000 obs. of 3 variables

Data

- `predicted_class`: Named num [1:3000] 1 1 0 0 1 1 0 0 0 1 ...
- `predicted_prob`: Named num [1:3000] 0.553 0.548 0.492 0.477 ...

Files

- `.RData`
- `Rhistory`
- `Airbnb_Open_Data.csv`
- `data.csv`
- `House_Price_Predictions.csv`
- `House_Price_Predictions.xlsx`
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- `Housing.csv`
- `insurance.csv`
- `Logistic_Regression_Customer_Purchase_Res`
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- `R.S103.Rproj`
- `S103 8TH M2.R`

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Exporting result in csv



A screenshot of an RStudio interface showing the results of a logistic regression analysis. The code in the console is:

```
R> f=glm("Actual","Predicted","Probability", family = "binomial")
R> summary(f)
Call:
  glm(formula = "Actual" ~ "Predicted", family = "binomial")
Residual deviance: 4143.5 on 2990 degrees of freedom
IC: 4163.5
```

The Data View shows the following variables:

Variables	Type	Dimensions	Values
data	3000 obs. of 8 variables		
model	Large glm (30 elements, 2 MB)		
results	3000 obs. of 3 variables		
values			
predicted_class	Named num [1:3000]	1 1 0 0 1 1 0 0 0 1 ...	
predicted_prob	Named num [1:3000]	0.553 0.548 0.492 0.477 ...	

The File View shows the following files:

Name	Size	Modified
House_Price_Predictions.csv	16.5 KB	Jan 19, 2026, 11:11 AM
House_Price_Predictions.xlsx	16.6 KB	Jan 19, 2026, 11:11 AM
House_Price_Regression_Plot.pdf	31.6 KB	Jan 19, 2026, 7:32 PM
Housing.csv	29.3 KB	Jan 18, 2026, 7:32 PM
insurance.csv	54.3 KB	Dec 21, 2025, 7:32 PM
Logistic_Regression_Customer_Purchase_Rec	72.9 KB	Jan 19, 2026, 11:28 AM
Pokemon.csv	43 KB	Sep 19, 2019, 3:44 PM
R S103.Rproj	218 B	Jan 19, 2026, 10:38 AM
S103 8TH M2.R	435 B	Dec 21, 2025, 7:37 PM
S103 9TH M2.R	505 B	Dec 21, 2025, 7:43 PM
S103 10TH M2.R	768 B	Jan 10, 2026, 6:04 PM
S103 11TH M2.R	511 B	Jan 10, 2026, 6:17 PM
S103 12TH M2.R	330 B	Jan 10, 2026, 6:24 PM
S103 13TH M2.R	1.6 KR	Jan 19, 2026, 11:09 AM