

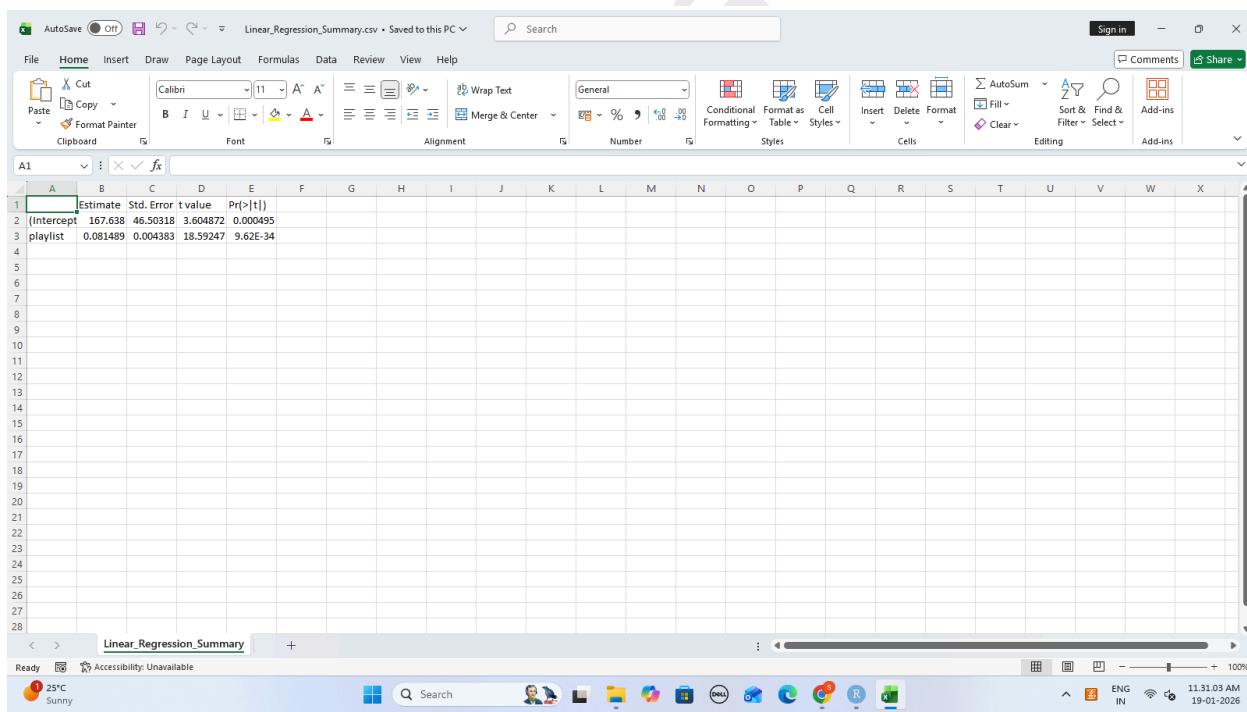
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**Aim :- Exporting results into external files (Excel, CSV, PDF) using write.csv() and writexl (R).**

```
# =====
# Export Regression Results
# =====

# Model summary to dataframe
model_summary <- as.data.frame(summary(model)$coefficients)

write.csv(model_summary,
          "C:/Users/itlab/Downloads/Linear_Regression_Summary.csv",
          row.names = TRUE)
```



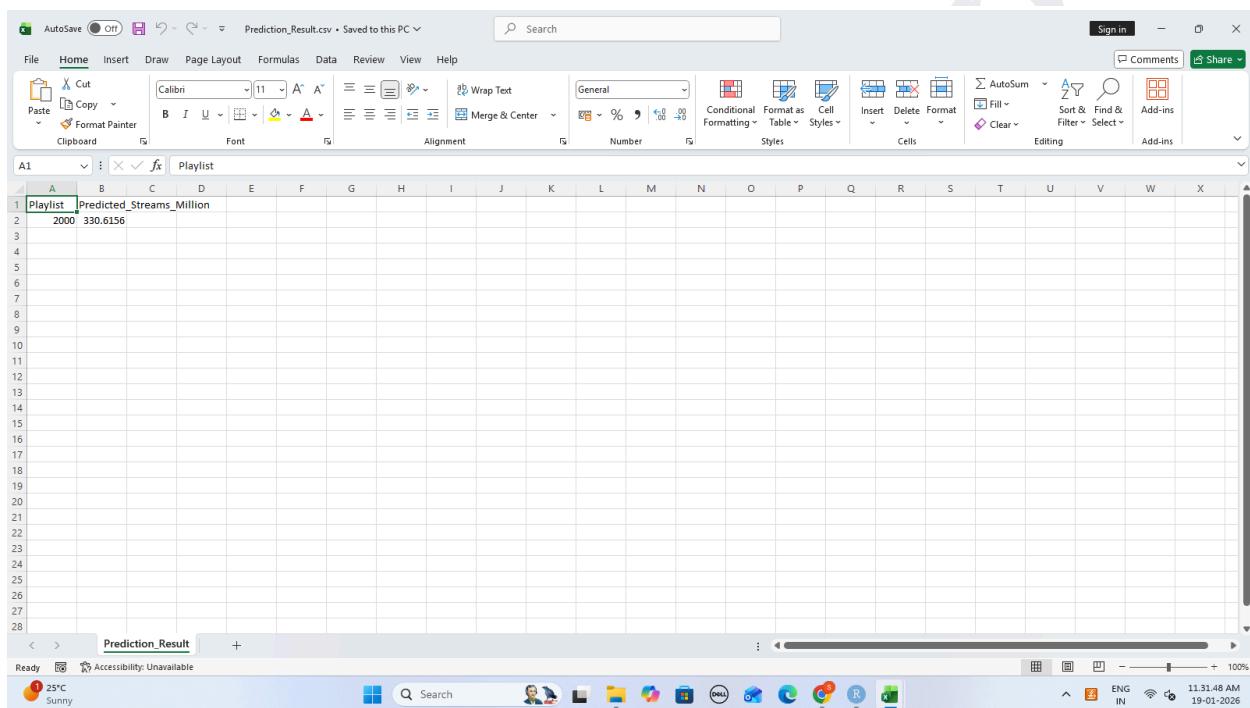
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1		Estimate	Std. Error	t value	Pr(> t )																			
2	(Intercept	167.638	46.50318	3.604872	0.000495																			
3	playlist	0.081489	0.004383	18.59247	9.62E-34																			
4																								
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```
# Prediction export
prediction_df <- data.frame(
  Playlist = 2000,
  Predicted_Streams_Million = predicted_value
)

write.csv(prediction_df,
          "C:/Users/itlab/Downloads/Prediction_Result.csv",
          row.names = FALSE)
```



A screenshot of Microsoft Excel showing a single data row. The spreadsheet has a header row with columns A through X. The first row contains the labels 'Playlist' and 'Predicted\_Streams\_Million'. The second row contains the values '2000' and '330.6156'. All other rows from 3 to 28 are empty. The Excel interface includes a ribbon menu at the top, various toolbars, and a status bar at the bottom displaying system information like weather and date.

Playlist	Predicted_Streams_Million
2000	330.6156

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```
# Excel export  
library(writexl)
```

```
write_xlsx(  
  list(  
    Model_Summary = model_summary,  
    Prediction = prediction_df  
  "C:/Users/itlab/Downloads/Regression_Results.xlsx"  
)
```

The screenshot shows a Microsoft Excel spreadsheet titled "Regression\_Results.xlsx". The table contains the following data:

	Estimate	Std. Error	t value	Pr(> t )
1	167.638	46.50318	3.6004872	0.000495
3	0.061489	0.004383	18.39247	9.62E-34

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# Cleaned dataset export

write.csv(Song,

"C:/Users/itlab/Downloads/Cleaned\_Song\_Data.csv",  
row.names = FALSE)

track_name	artist_s_n	artist_cour	released_released	released_in_spotify	in_spotify_streams	in_apple	in_apple	in_deezer	in_deezer	in_shazam	bpm	key	mode	danceability	valence_	energy_	acousticness	instrumentalness	liveness_	speechiness	popularity	
Seven (feat. Latto, Junj	2	2023	7	14	553	147	1.41E+08	43	263	45	10	826	125 B	Major	80	89	83	31	0	8	4	
LALA	Myke Tow	1	2023	3	23	1474	48	1.34E+08	48	126	58	14	382	92 C#	Major	71	61	74	7	0	10	4
vampire	Olivia Rod	1	2023	6	30	1397	113	1.4E+08	94	207	91	14	949	138 F	Major	51	32	53	17	0	31	6
Cruel Summer Taylor Swi	1	2019	8	23	7858	10	8.01E+08	116	207	125	12	548	170 A	Major	55	58	72	11	0	11	15	
WHERE Sh Bad Bunn	1	2023	5	18	3133	50	3.03E+08	84	133	87	15	425	144 A	Minor	65	23	80	14	63	11	6	
Sprinter	Dave, Cen	2	2023	6	1	2186	91	1.84E+08	67	213	88	17	946	141 C#	Major	92	66	58	19	0	8	24
Ella Balla 'Esteban A	2	2023	3	16	3090	50	7.26E+08	34	222	43	13	418	148 F	Minor	67	83	76	48	0	8	3	
Columbia Quevedo	1	2023	7	7	714	43	58149378	25	89	30	13	194	100 F	Major	67	26	71	37	0	11	4	
fukumear Gunna	1	2023	5	15	1096	83	95217315	60	210	48	11	953	130 C#	Minor	85	22	62	12	0	28	9	
La Bebe - (Peso Plumb	2	2023	3	17	2953	44	5.54E+08	49	110	66	13	339	170 D	Minor	81	56	48	21	0	8	33	
un x100to Bad Bunn	2	2023	4	17	2876	40	5.06E+08	41	205	54	12	251	83 #F	Minor	57	56	72	23	0	27	5	
Super Shy NewJeans	1	2023	7	7	422	55	58225150	37	202	21	5	168	150 F	Minor	78	52	82	18	0	15	7	
Flowers	Miley Cyr	1	2023	1	12	12211	115	1.32E+09	300	215	745	58	1,021	118	Major	71	65	68	6	0	3	7
Daylight	David Kus	1	2023	4	14	3528	98	3.88E+08	80	156	182	24	1,281	130 D	Minor	51	32	43	83	0	9	3
As It Was Harry Sty	1	2022	3	31	23575	13	2.51E+09	403	198	863	46	174 #F	Minor	52	66	73	34	0	31	6		
Kill Bill SZA	1	2022	12	8	8109	77	1.16E+09	183	162	161	12	187	89 G#	Major	64	43	73	5	17	16	4	
Cupid - TwFifty Fifty	1	2023	2	24	2942	77	4.97E+08	91	212	78	6	0	120 B	Minor	78	76	59	43	0	34	3	
What Was Billie Ellis	1	2023	7	13	873	104	30546883	80	227	95	24	1,173	78	Major	44	14	9	96	0	10	3	
Classy 101 Feid, Your	2	2023	3	31	2610	40	3.35E+08	43	100	54	14	187	100 B	Major	86	67	66	14	0	12	16	
Like Crazy Jimin	1	2023	3	24	596	68	3.63E+08	8	104	23	2	29	120 G	Major	63	36	73	0	0	36	4	
LADY GAG Gabito Ba	3	2023	6	22	332	26	86444842	11	163	10	4	0	140 F	Minor	65	87	74	22	0	42	4	
I Can See Taylor Swi	1	2023	7	7	516	38	52135248	73	119	42	1	150	123 #F	Major	69	82	76	6	0	6	3	
I Wanna B Arctic Mot	1	2013	1	1	12859	110	1.3E+09	24	98	582	2	73	135	Minor	48	44	42	12	2	11	3	
Peso Plumb Bizarrap, F	2	2023	5	31	1313	26	4.201E+08	17	152	32	11	139	133 F	Minor	85	81	67	26	0	12	5	
Popular (v The Week	3	2023	6	2	1945	87	1.15E+08	74	182	87	14	1,093	99 C#	Major	85	83	68	7	0	36	20	
SABOR FR Fuerza Re	1	2023	6	22	250	26	78300654	16	149	10	5	168	130 G	Minor	79	96	86	9	0	9	9	
Calm Down RA ÁzÄÅs	2	2022	3	25	7112	77	8.99E+08	202	119	318	38	96	107 B	Major	80	82	80	43	0	14	4	

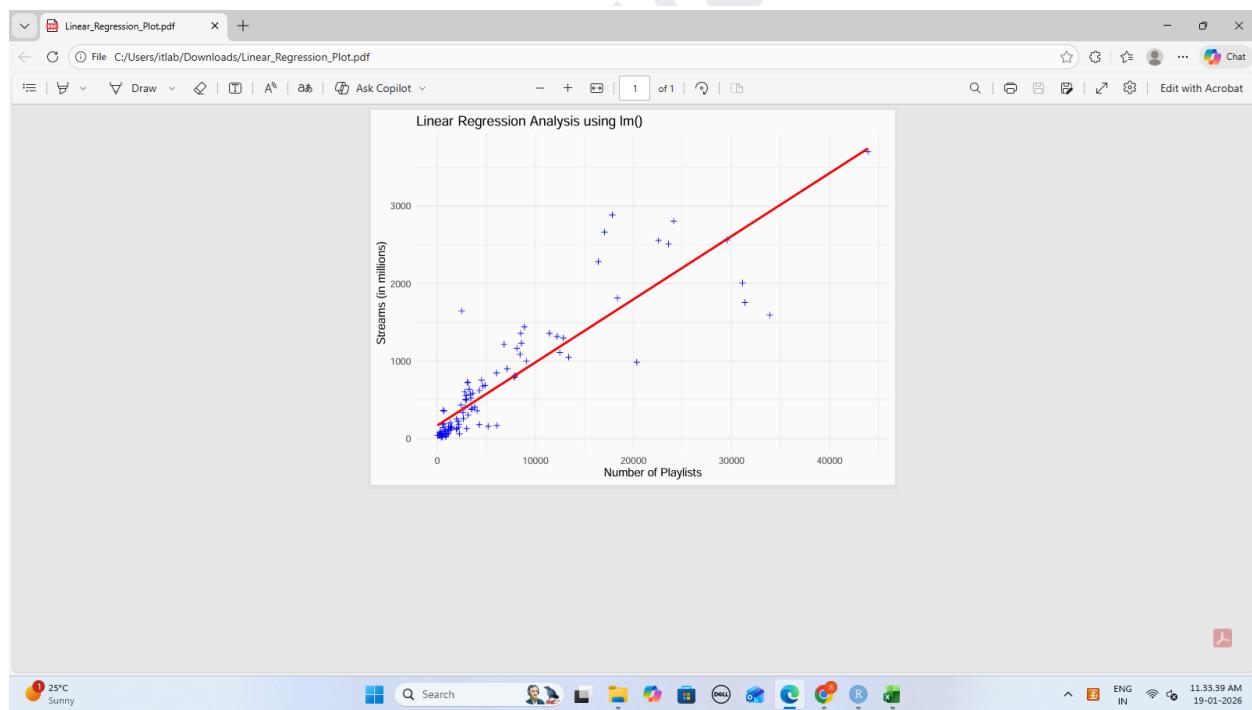
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```
library(ggplot2)
# Plot export (PDF)
pdf("C:/Users/itlab/Downloads/Linear_Regression_Plot.pdf",
width = 7, height = 5)

ggplot(Song, aes(x = playlist, y = streams_million)) +
  geom_point(color = "blue", shape = 3) +
  geom_smooth(method = "lm", se = FALSE, color = "red") +
  labs(
    title = "Linear Regression Analysis using lm()", 
    x = "Number of Playlists", 
    y = "Streams (in millions)"
  ) +
  theme_minimal()

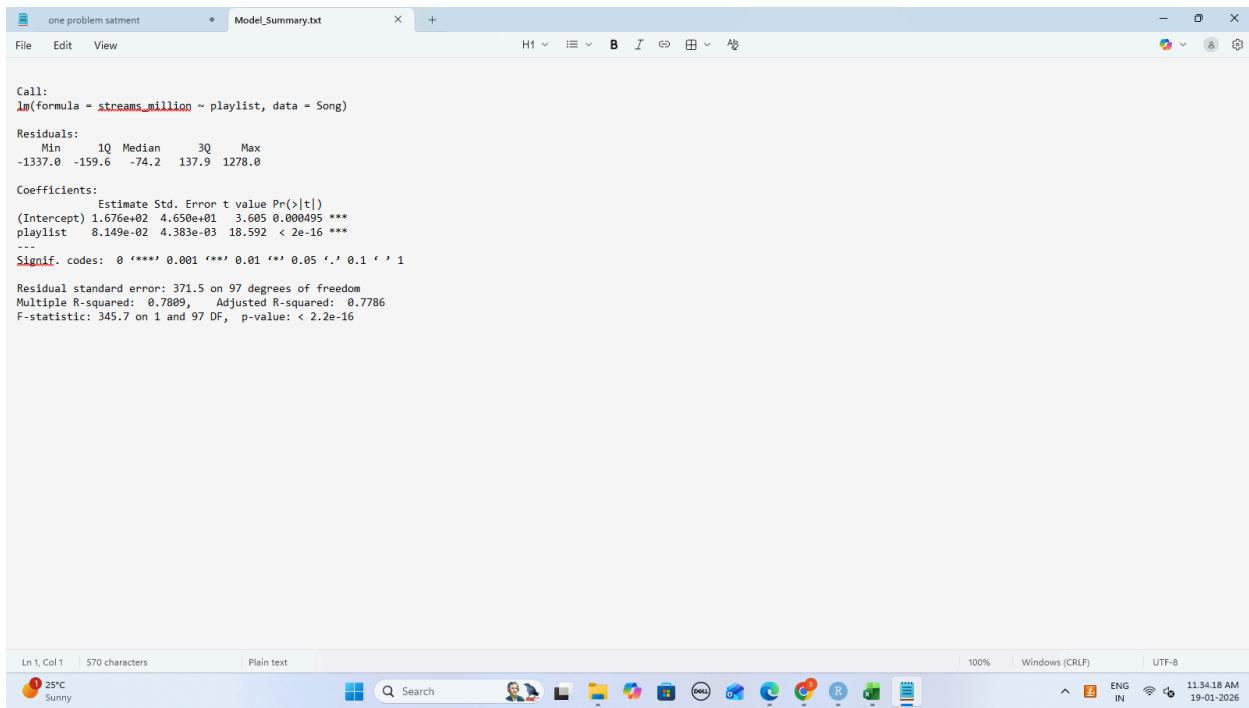
dev.off()
```



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```
# Model summary to text file
sink("C:/Users/itlab/Downloads/Model_Summary.txt")
summary(model)
sink()
```



The screenshot shows a Windows desktop environment. A text editor window titled "Model\_Summary.txt" is open, displaying the R model summary output. The output includes the call to lm(), residuals statistics, coefficients table, and model fit statistics. The desktop taskbar at the bottom shows various application icons, and the system tray indicates it's 11:54 AM on January 19, 2026, with the weather being 25°C and sunny.

```
Call:
lm(formula = streams_million ~ playlist, data = Song)

Residuals:
    Min      1Q  Median      3Q     Max 
-1337.0 -159.6   -74.2  137.9 1278.0 

Coefficients:
            Estimate Std. Error t value Pr(>|t|)    
(Intercept) 1.670e+02 4.656e+01 3.605 0.000495 ***
playlist    8.149e-02 4.383e-03 18.592 < 2e-16 ***
---
Signif. codes:  0 '****' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 371.5 on 97 degrees of freedom
Multiple R-squared:  0.7809, Adjusted R-squared:  0.7786 
F-statistic: 345.7 on 1 and 97 DF,  p-value: < 2.2e-16
```

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