Fab Mart

You are provided with the following data for analysing the Cochin DC:

i. ***sku_master:*** *It contains information of BU, SKU, Brand, Model and Average Price*

ii. ***sales_data:*** *It contains information on Date, SKU, City and Volume*

iii. ***opn_stk:*** *Stock that is available as on 01-04-2021*

iv. ***cochin_stk_trans:*** *Contains information on incoming stocks to Cochin DC from 01-04-2021 – 15-04-2021.*

Using the provided data, answer questions 1 to 9. Support your answers by pasting the necessary graphs and tables as pictures (when mentioned in the question). In addition to this document, submit the excel file, where you have performed the analysis.

1. **Create a Revenue Pareto Charts for Cochin DC. Show the Pareto table that has the top SKUs contributing to approximately 80% of the total revenue.***Hint: Pareto chart should have primary axis in rupees, secondary axis in percentage. The table should have the following columns: SKU, Revenue, Cumulative Revenue, and percentage.*
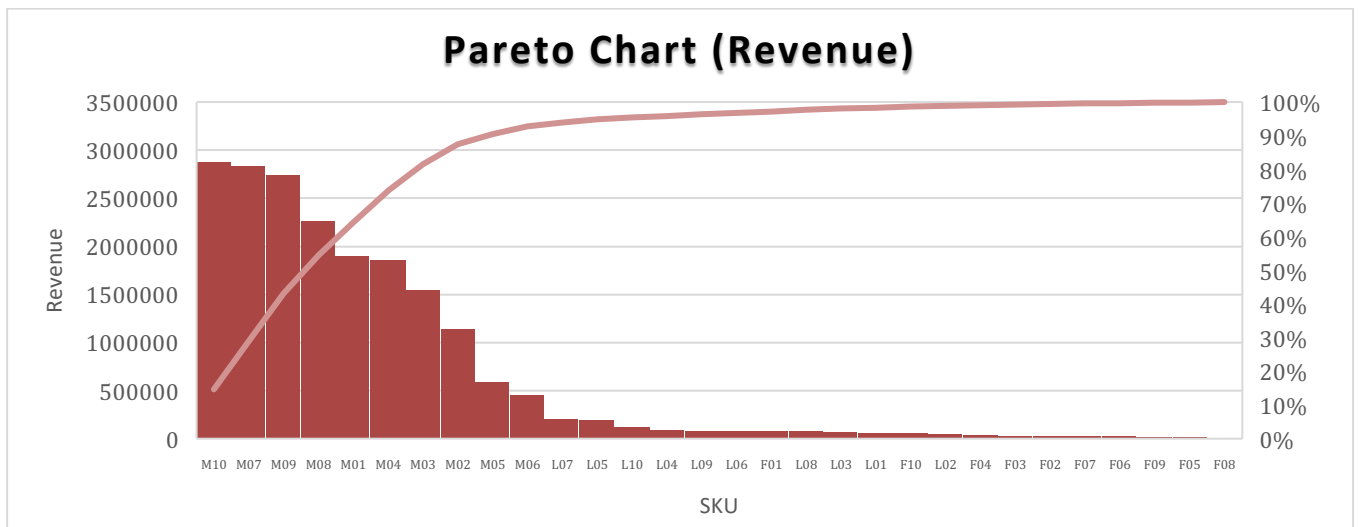
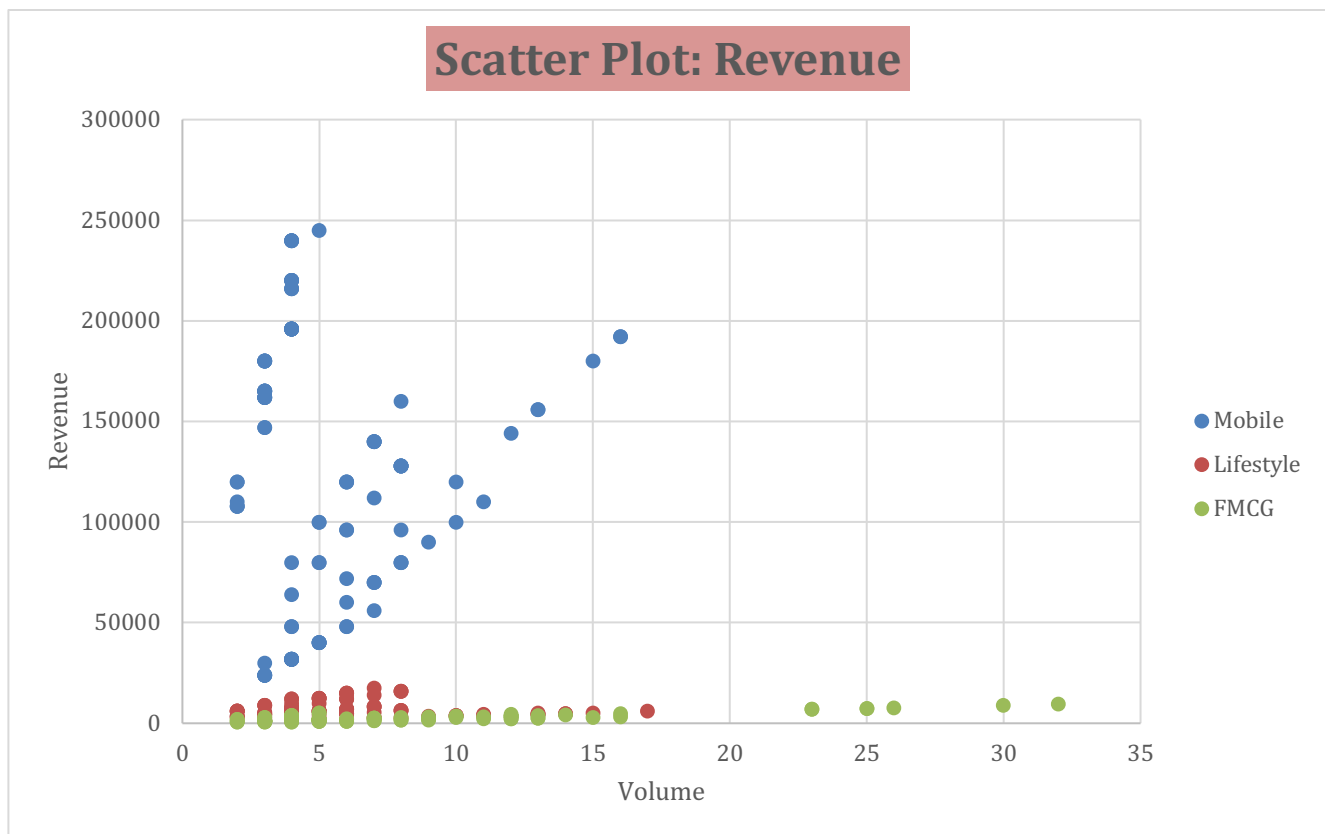## Assignment 2 | E-Commerce Case Study
Saurav Kumar (21f1003694)

SKU	Revenue	Cumulative Revenue	% of Total Revenue
M10	2880000	2880000	14.66%
M07	2842000	5722000	29.12%
M09	2750000	8472000	43.12%
M08	2268000	10740000	54.67%
M01	1896000	12636000	64.32%
M04	1860000	14496000	73.78%
M03	1552000	16048000	81.68%
M02	1140000	17188000	87.48%
M05	592000	17780000	90.50%
M06	456000	18236000	92.82%
L07	205000	18441000	93.86%
L05	191904	18632904	94.84%
L10	120000	18752904	95.45%
L04	91200	18844104	95.91%
L09	90000	18934104	96.37%
L06	88800	19022904	96.82%
F01	87300	19110204	97.27%
L08	78000	19188204	97.67%
L03	73600	19261804	98.04%
L01	63000	19324804	98.36%
F10	57942	19382746	98.66%
L02	47200	19429946	98.90%
F04	39055	19469001	99.09%
F03	36250	19505251	99.28%
F02	32200	19537451	99.44%
F07	26800	19564251	99.58%
F06	26250	19590501	99.71%
F09	23460	19613961	99.83%
F05	17860	19631821	99.92%
F08	15000	19646821	100.00%

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2. *Create a single scatter plot for Cochin DC and show the scatter chart between volume and revenue. Identify 2 outliers, one in terms of revenue and the other in terms of volume (write down their values).*

   Hint: If your revenue outlier is L01, write L01 (10,00,000 INR), and similarly if your volume outlier is F05, write F05 (350).

   a. Revenue outlier: **M07 (245000 INR)**
   b. Volume outlier: **F01 (32)**

Scatter Plot: Revenue

SKU	VOLUME	REVENUE	SKU2	VOLUME3	REVENUE4	SKU5	VOLUME6	REVENUE7
M01	16	192000	L01	11	3850	F01	14	4200
M01	12	144000	L01	14	4900	F01	30	9000

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M01	6	72000	L01	13	4550	F01	25	7500
M01	10	120000	L01	11	3850	F01	26	7800
M01	4	48000	L01	15	5250	F01	16	4800
M01	8	96000	L01	13	4550	F01	10	3000
M01	13	156000	L01	13	4550	F01	23	6900
M01	15	180000	L01	8	2800	F01	3	900
M01	16	192000	L01	17	5950	F01	32	9600
M01	4	48000	L01	6	2100	F01	25	7500
M01	13	156000	L01	14	4900	F01	23	6900
M02	11	110000	L02	9	3600	F02	5	1000
M02	9	90000	L02	4	1600	F02	9	1800
M02	6	60000	L02	10	4000	F02	15	3000
M02	10	100000	L02	11	4400	F02	16	3200
M02	7	70000	L02	4	1600	F02	8	1600
M02	7	70000	L02	7	2800	F02	13	2600
M02	3	30000	L02	13	5200	F02	11	2200
M02	8	80000	L02	10	4000	F02	12	2400
M02	8	80000	L02	7	2800	F02	13	2600
M02	7	70000	L02	5	2000	F02	12	2400
M02	8	80000	L02	10	4000	F02	3	600
M03	8	128000	L03	8	6400	F03	5	1450
M03	8	128000	L03	5	4000	F03	7	2030
M03	6	96000	L03	6	4800	F03	5	1450
M03	4	64000	L03	4	3200	F03	12	3480
M03	6	96000	L03	3	2400	F03	11	3190
M03	5	80000	L03	7	5600	F03	9	2610
M03	8	128000	L03	8	6400	F03	12	3480
M03	8	128000	L03	8	6400	F03	12	3480
M03	8	128000	L03	6	4800	F03	8	2320
M03	5	80000	L03	6	4800	F03	13	3770
M03	7	112000	L03	6	4800	F03	12	3480
M04	7	140000	L04	6	7200	F04	10	3650
M04	7	140000	L04	7	8400	F04	10	3650
M04	6	120000	L04	6	7200	F04	7	2555
M04	7	140000	L04	4	4800	F04	8	2920
M04	4	80000	L04	6	7200	F04	9	3285
M04	7	140000	L04	7	8400	F04	3	1095
M04	5	100000	L04	4	4800	F04	12	4380

M04	6	120000	L04	4	4800	F04	3	1095
M04	8	160000	L04	3	3600	F04	5	1825
M04	6	120000	L04	5	6000	F04	5	1825
M04	5	100000	L05	6	11994	F04	7	2555
M05	4	32000	L05	8	15992	F05	6	1140
M05	3	24000	L05	4	7996	F05	8	1520
M05	5	40000	L05	8	15992	F05	7	1330
M05	4	32000	L05	5	9995	F05	7	1330
M05	4	32000	L05	8	15992	F05	5	950
M05	6	48000	L05	4	7996	F05	4	760
M05	5	40000	L05	7	13993	F05	3	570
M05	7	56000	L05	6	11994	F05	6	1140
M05	6	48000	L05	6	11994	F05	9	1710
M05	5	40000	L06	5	6000	F05	4	760
M05	5	40000	L06	7	8400	F05	5	950
M06	4	32000	L06	4	4800	F06	6	2100
M06	4	32000	L06	6	7200	F06	4	1400
M06	3	24000	L06	5	6000	F06	7	2450
M06	3	24000	L06	4	4800	F06	5	1750
M06	4	32000	L06	5	6000	F06	5	1750
M06	3	24000	L06	4	4800	F06	7	2450
M06	4	32000	L06	5	6000	F06	4	1400
M06	4	32000	L06	6	7200	F06	5	1750
M06	3	24000	L07	6	15000	F06	3	1050
M06	5	40000	L07	5	12500	F06	4	1400
M06	4	32000	L07	7	17500	F06	3	1050
M07	4	196000	L07	5	12500	F07	4	1600
M07	4	196000	L07	5	12500	F07	4	1600
M07	5	245000	L07	6	15000	F07	6	2400
M07	4	196000	L07	5	12500	F07	5	2000
M07	4	196000	L07	6	15000	F07	5	2000
M07	3	147000	L07	4	10000	F07	3	1200
M07	4	196000	L07	6	15000	F07	3	1200
M07	4	196000	L08	4	6000	F07	4	1600
M07	4	196000	L08	4	6000	F07	5	2000
M07	3	147000	L08	4	6000	F07	4	1600
M07	4	196000	L08	3	4500	F07	5	2000
M08	3	162000	L08	3	4500	F08	4	1200

|								
M08	2	108000	L08	4	6000	F08	2	600
M08	2	108000	L08	4	6000	F08	4	1200
M08	3	162000	L08	3	4500	F08	5	1500
M08	4	216000	L08	3	4500	F08	3	900
M08	4	216000	L08	2	3000	F08	2	600
M08	4	216000	L09	2	3600	F08	3	900
M08	3	162000	L09	2	3600	F08	3	900
M08	3	162000	L09	4	7200	F08	3	900
M08	3	162000	L09	2	3600	F08	4	1200
M08	2	108000	L09	4	7200	F08	3	900
M09	3	165000	L09	4	7200	F09	2	920
M09	4	220000	L09	3	5400	F09	3	1380
M09	2	110000	L09	4	7200	F09	3	1380
M09	3	165000	L09	3	5400	F09	4	1840
M09	3	165000	L09	4	7200	F09	3	1380
M09	3	165000	L10	4	12000	F09	3	1380
M09	4	220000	L10	3	9000	F09	5	2300
M09	3	165000	L10	2	6000	F09	4	1840
M09	3	165000	L10	4	12000	F09	3	1380
M09	4	220000	L10	2	6000	F09	3	1380
M09	4	220000	L10	2	6000	F09	3	1380
M10	4	240000	L10	2	6000	F10	5	4995
M10	4	240000	L10	3	9000	F10	4	3996
M10	3	180000	L10	2	6000	F10	5	4995
M10	3	180000	L10	3	9000	F10	2	1998
M10	3	180000				F10	3	2997
M10	3	180000		.		F10	4	3996
M10	4	240000				F10	4	3996
M10	2	120000				F10	4	3996
M10	2	120000				F10	2	1998
M10	3	180000				F10	3	2997
M10	4	240000				F10	4	3996

3. *Draw a line graph to identify trends with respect to volumes observed in the 15 days sale in Cochin DC?* **On 09-04-2021, how many units were sold?**

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Hint: Use data labels

Answer: 200 units

Trend Analysis: Sales
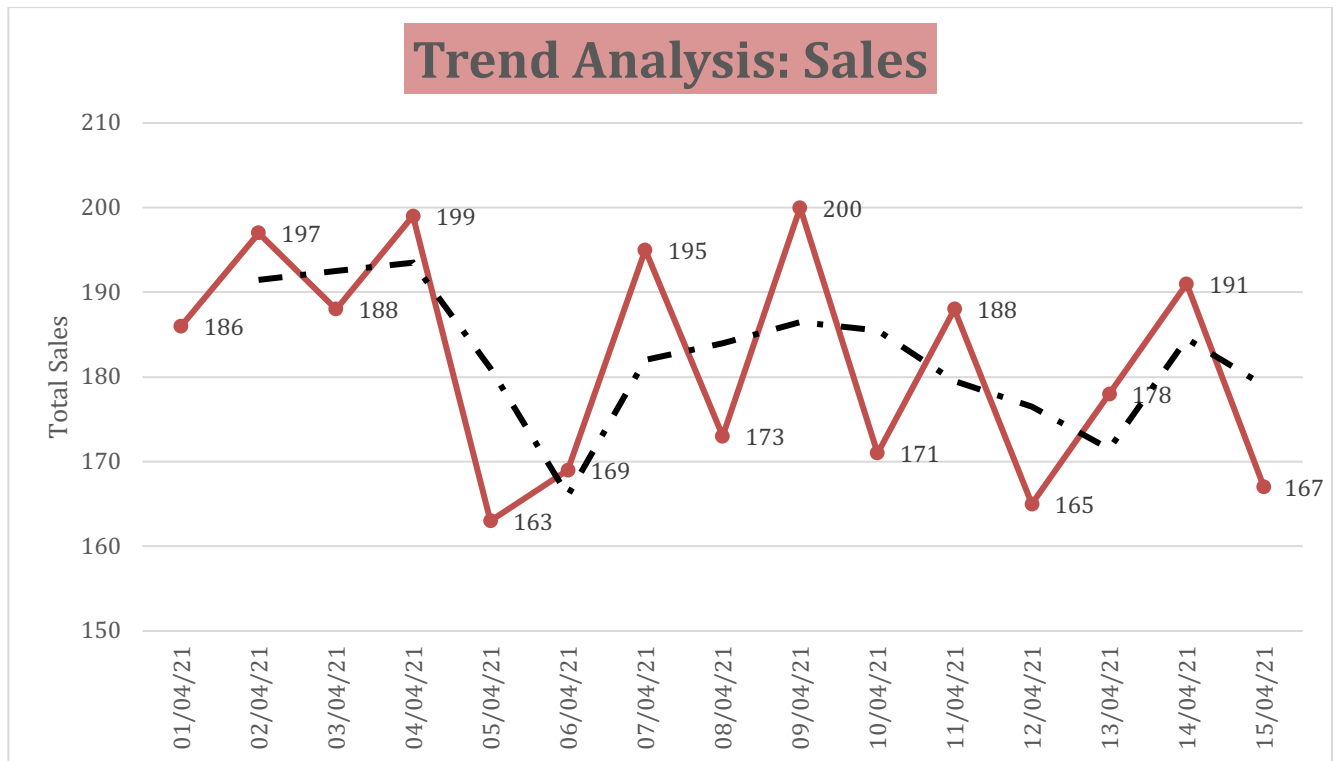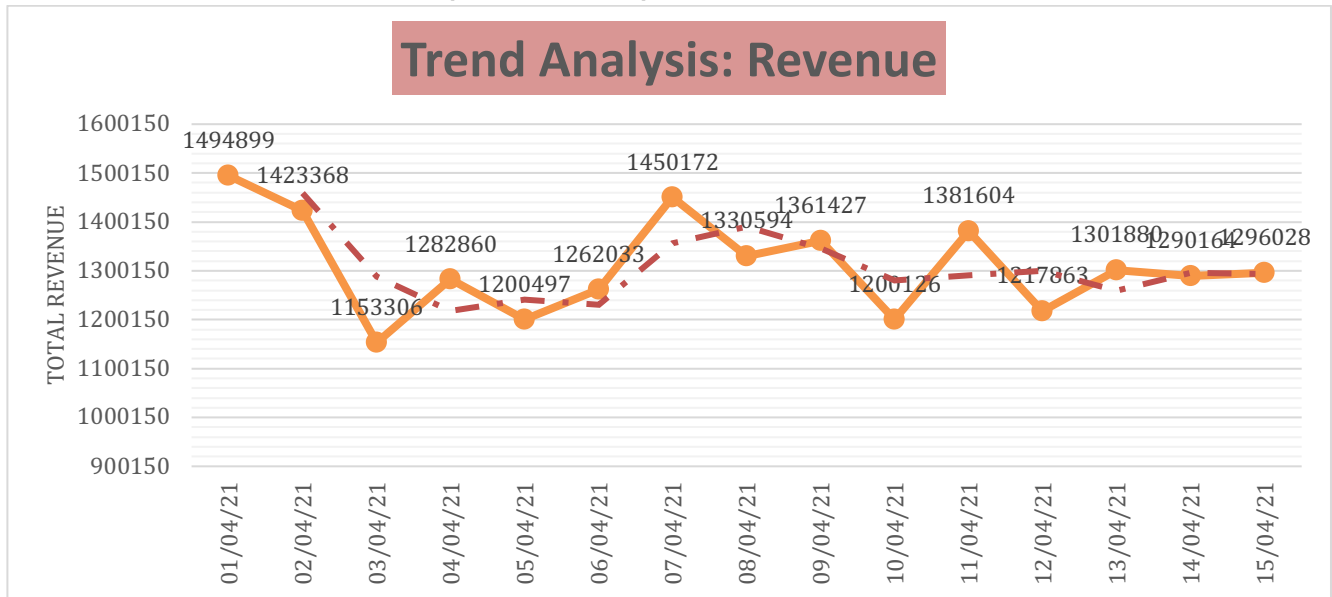
4. *Draw a line graph to identify trends with respect to revenue observed in the 15 days sale in Cochin DC?* On 03-04-2021, how much revenue was generated?
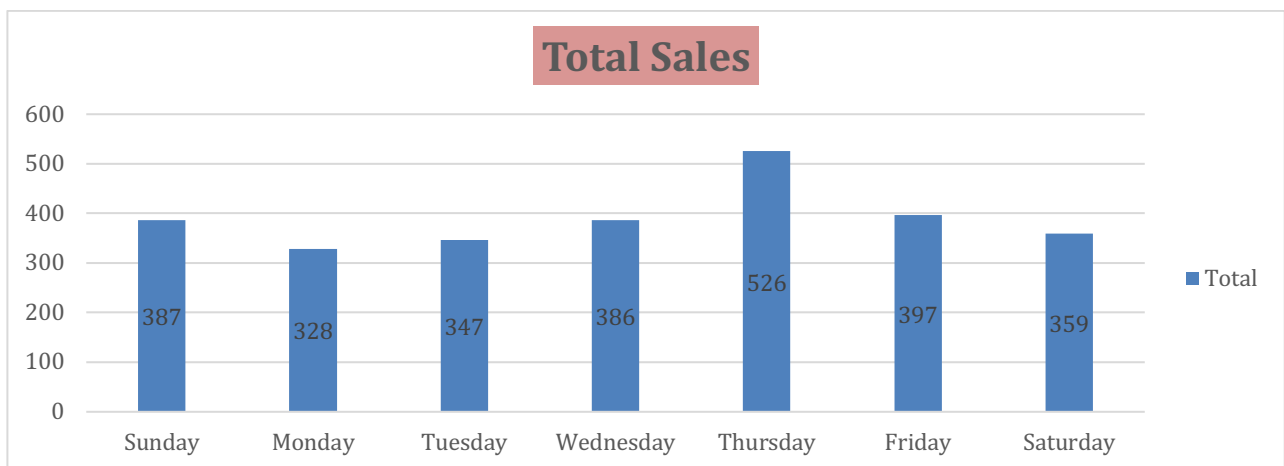
Answer: 1153306 *INR*

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Trend Analysis: Revenue

5. *Draw a bar chart to represent the volume trend with respect to the days of the week in Cochin DC. Using the 15 days data, identify how many units were sold on Fridays?*

Hint: Use data labels
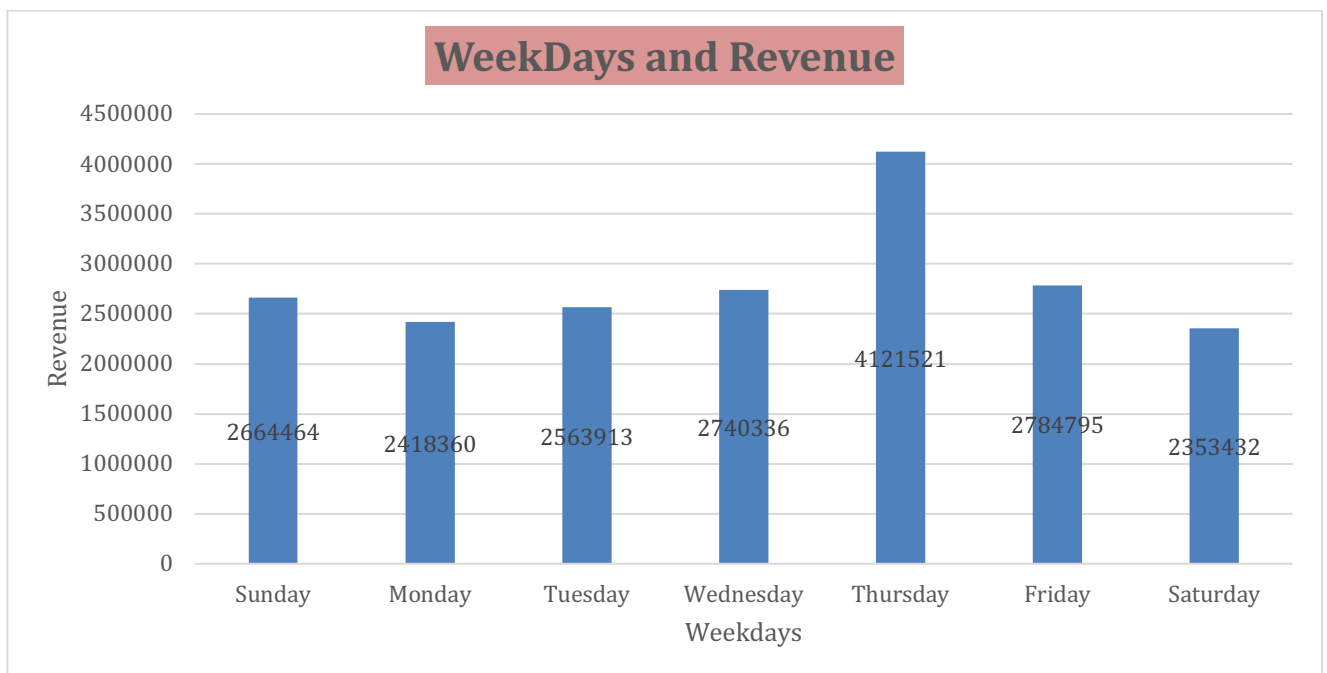
Answer: <u>397</u> units

6. *Draw a bar chart to represent the revenue trend in Cochin DC. Using the 15 days data, identify how much revenue was generated on Fridays?*

Hint: Use data labels
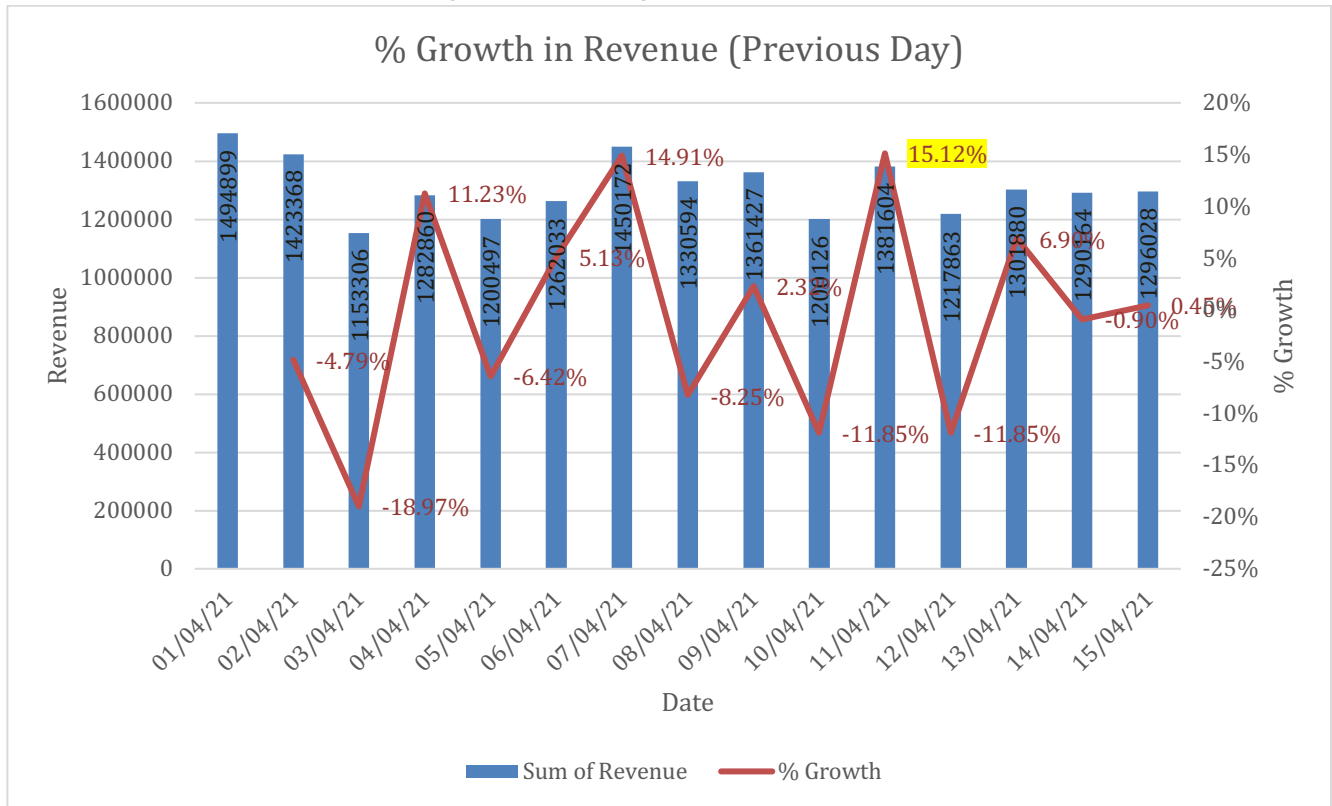
Answer: 2784795 INR

WeekDays and Revenue

7. *Plot a graph to identify revenue trends with respect to the previous day. How much was the revenue growth on the 11th in comparison to the 10th?*

Hint: In the combo chart, use Revenue (INR) in the primary axis, and growth (%) in secondary axis, and add data labels in the growth line.

Answer: 15.12 %

% Growth in Revenue (Previous Day)

8. *Create a ledger for the Cochin DC, and mention the closing stock of F01, M01, and L01 on 15.04.2021.*

   Answer: F01: 93; M01: 22; L01: 55;

Date	SKU	Opn Stock	In-Transit	Sales	Closing Stock
15/04/21	F01	77	19	3	93
15/04/21	M01	29	7	14	22
15/04/21	L01	60	6	11	55

9. *Calculate the average days of inventory for F04, M04, and L04.*

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Hint: First calculate the average open stock and average sales using the 15 days transactions and compute the average days of inventory.

Answer: F04: 3.22; M04: 1.61; L04: 2.76;

	F04		L04		M04	
	Date	Sales	Date	Sales	Date	Sales
	01/04/21	10	01/04/21	6	01/04/21	7
	02/04/21	10	02/04/21	7	02/04/21	7
	03/04/21	7	03/04/21	6	03/04/21	6
	04/04/21	8	04/04/21	4	04/04/21	7
	05/04/21	9	05/04/21	6	05/04/21	4
	06/04/21	3	06/04/21	7	06/04/21	7
	07/04/21	12	07/04/21	4	07/04/21	5
	08/04/21	3	08/04/21	4	08/04/21	6
	09/04/21	5	09/04/21	3	09/04/21	8
	10/04/21	5	10/04/21	5	10/04/21	6
	11/04/21	7	11/04/21	5	11/04/21	5
	12/04/21	9	12/04/21	5	12/04/21	7
	13/04/21	8	13/04/21	4	13/04/21	8
	14/04/21	5	14/04/21	6	14/04/21	4
	15/04/21	6	15/04/21	4	15/04/21	6
Avg Sales		7		5		6
Opn Stock		23		14		10
Average Inventory Days		**3.22**		**2.76**		**1.61**