Hiring Process Analytics

The project was designed to conduct comprehensive data analytics on the hiring process within a company, , with the primary objective of gaining insights into various aspects such as gender distribution, salary analysis, departmental composition, and position tiers. By analyzing these factors, the project aimed to provide valuable insights into hiring patterns and organizational dynamics.

Approach

I have used Microsoft Excel for its extensive data analysis functionalities, including pivot tables, charts, and statistical functions, It facilitated in-depth exploration and visualization of the hiring data, enabling a thorough understanding of the underlying trends and patterns.

A dataset containing relevant information on hires, including gender, salary, department, and position, was obtained

Insights

# Analysis of People hired and rejected gender wise

Analysis of salary department Wise and overall average

A) **<u>Hiring Analysis</u>** –

The hiring process involves bringing new individuals into the organization for various roles.

Your Task: Determine the gender distribution of hires. How many males and females have been hired by the company?

| Count of event_name	Column Labels		
Row Labels	Female	Male	Grand Total
Hired	1856	2572	4428
Rejected	819	1527	2346
Grand Total	2675	4099	6774
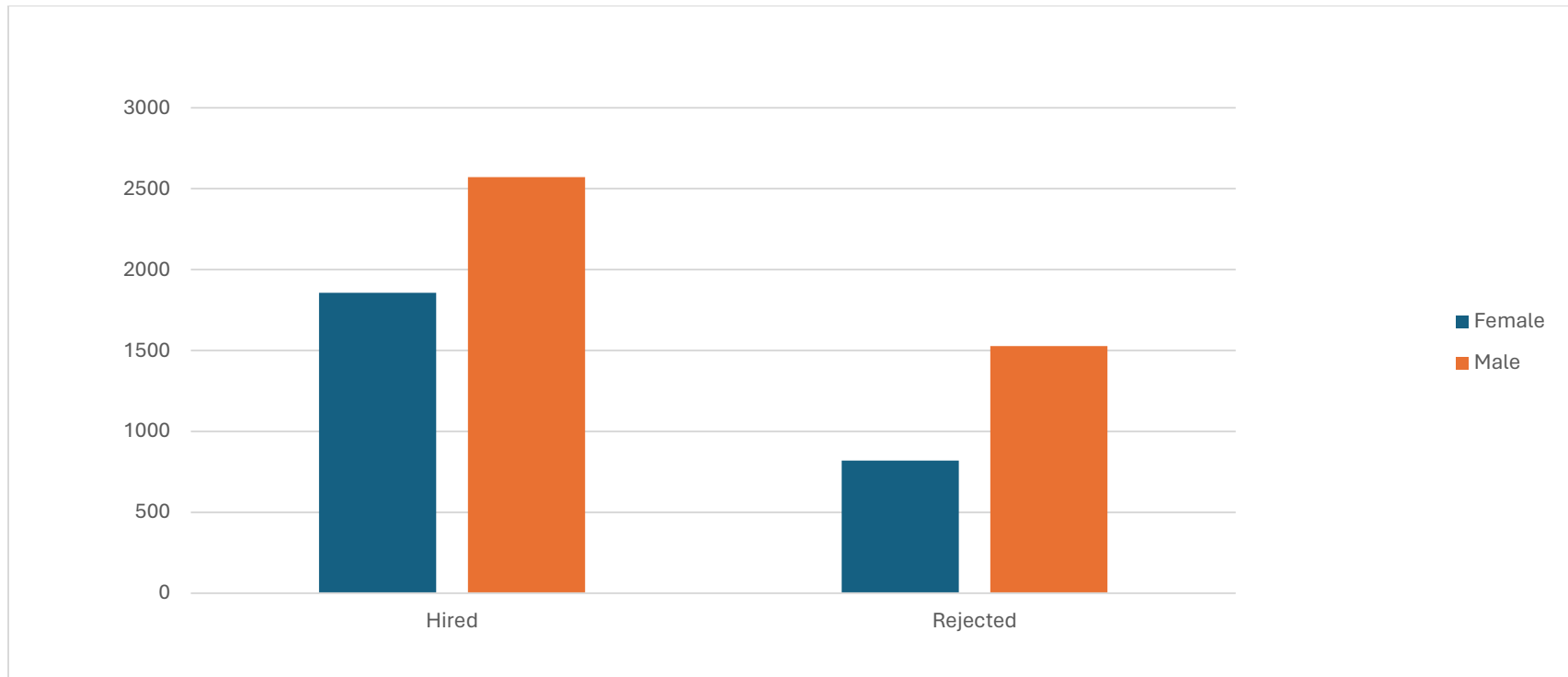
B) Salary Analysis –

The average salary is calculated by adding up the salaries of a group of employees and then dividing the total by the number of employees.

Your Task: What is the average salary offered by this company? Use Excel functions to calculate this.

Overall Average Salary	Department Wise Salary	
49978.01493	**Row Labels**	**Sum of Offered Salary**
	Finance Department	14292866
	General Management	10100200

|	
Human Resource Department	4753221
Marketing Department	15759229
Operations Department	136198403
Production Department	18790424
Purchase Department	17504070
Sales Department	36749608
Service Department	104044412
Grand Total	**358192433**

DEPARTMENT WISE
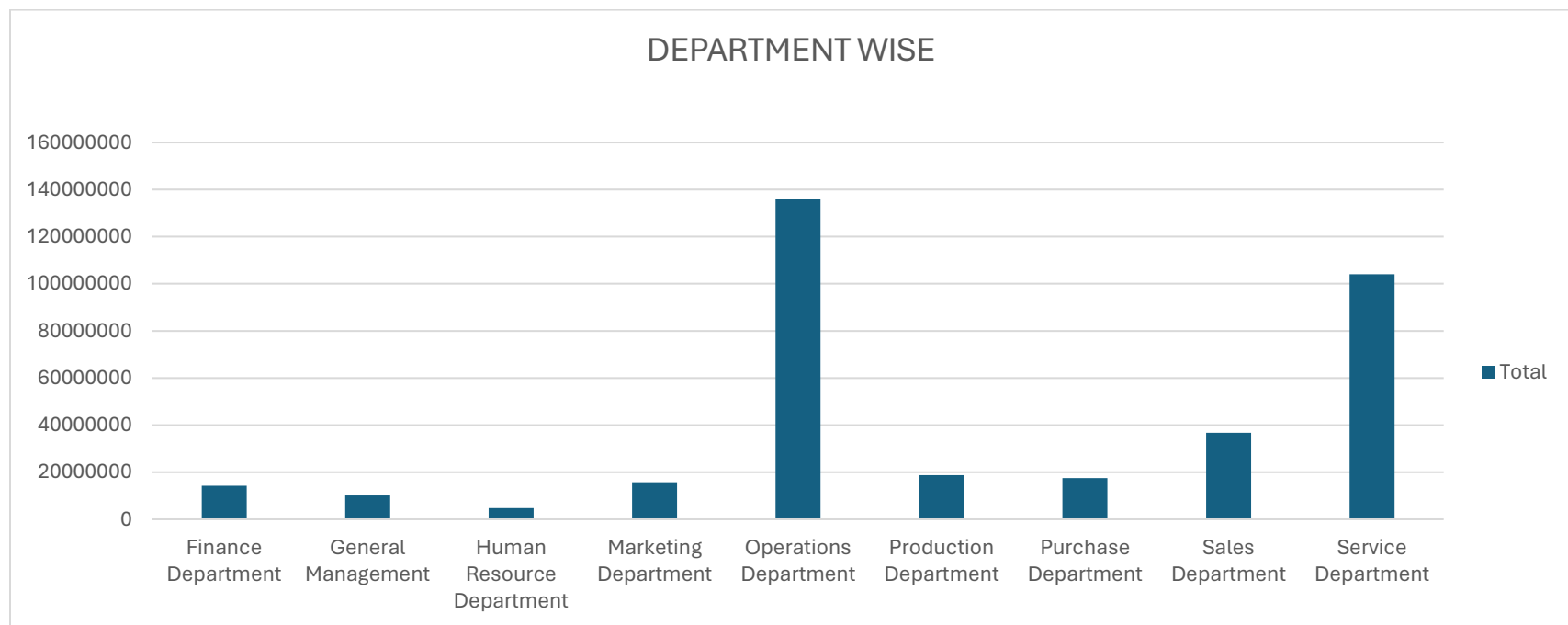
C) **Salary Distribution**

Class intervals represent ranges of values, in this case, salary ranges. The class interval is the difference between the upper and lower limits of a class.

Your Task: Create class intervals for the salaries in the company. This will help you understand the salary distribution

Lower	Upper	Freq
0	10000	676
10001	20000	730
20001	30000	708
30001	40000	710
40001	50000	781
50001	60000	748
60001	70000	697
70001	80000	733
80001	90000	708
90001	100000	659
100001	110000	0
110001	120000	0
120001	130000	0
130001	140000	0
140001	150000	0
150001	160000	0
160001	170000	0
170001	180000	0
180001	190000	0
190001	200000	0
200001	210000	0
210001	220000	0
220001	230000	0
230001	240000	0
240001	250000	0
250001	260000	0
260001	270000	0
270001	280000	0
280001	290000	0
290001	300000	1
300001	310000	0
310001	320000	0

|		
320001	330000	0
330001	340000	0
340001	350000	0
350001	360000	0
360001	370000	0
370001	380000	0
380001	390000	0
390001	400000	1

Salary Distribution
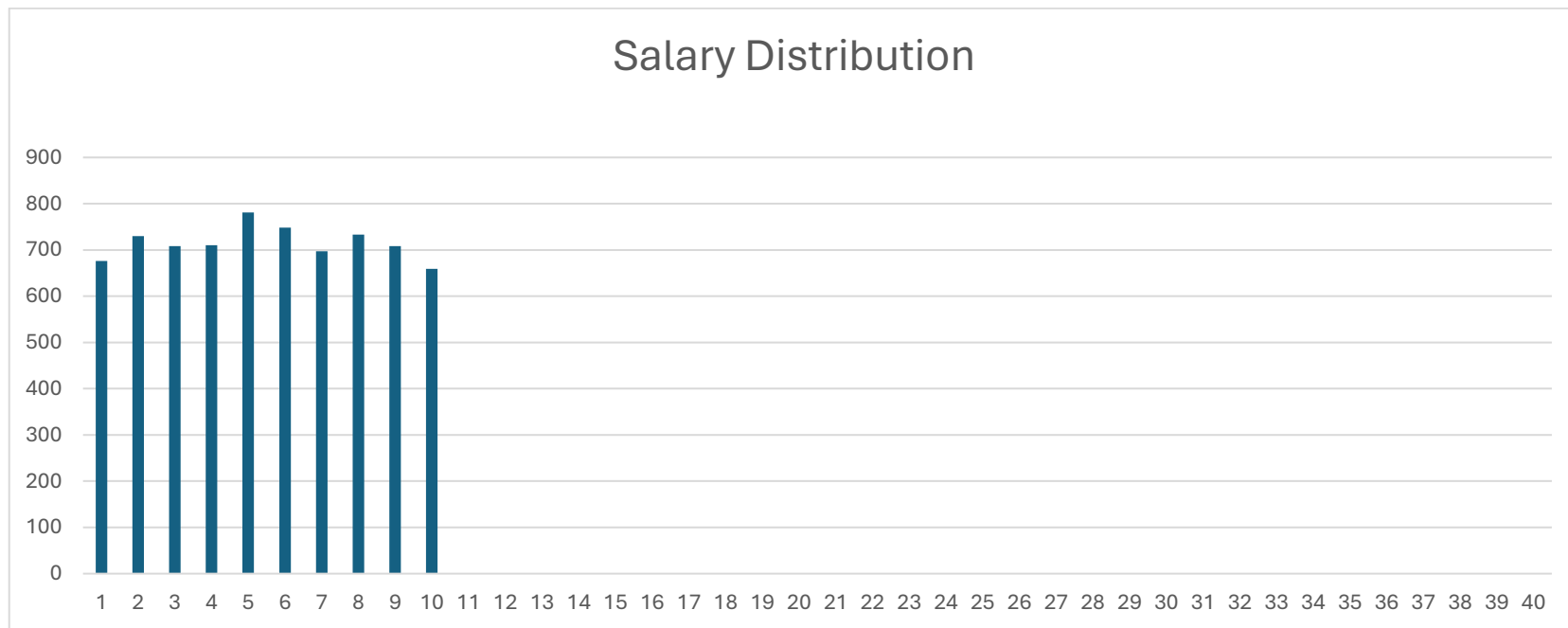
D) Departmental Analysis

Visualizing data through charts and plots is a crucial part of data analysis.

Your Task: Use a pie chart, bar graph, or any other suitable visualization to show the proportion of people working in different departments.

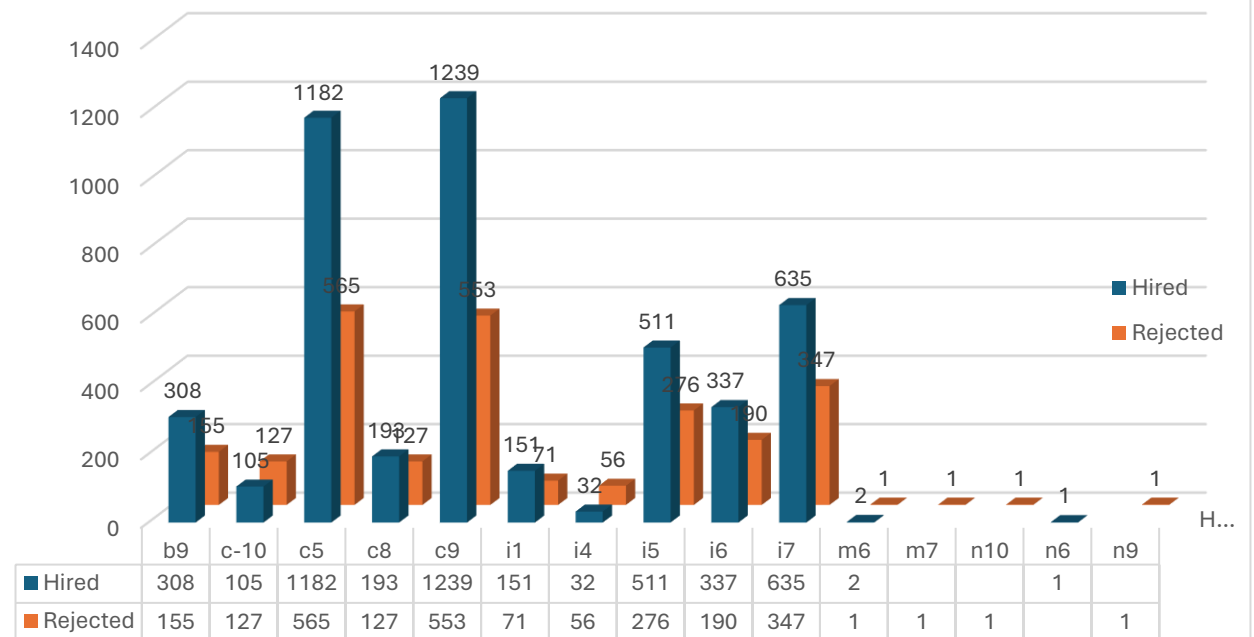| Count of Status	Column Labels	
Row Labels	Hired	Grand Total
Finance Department	176	176
General Management	113	113
Human Resource Department	70	70
Marketing Department	202	202
Operations Department	1843	1843
Production Department	246	246
Purchase Department	230	230
Sales Department	484	484
Service Department	1332	1332
Grand Total	4696	4696
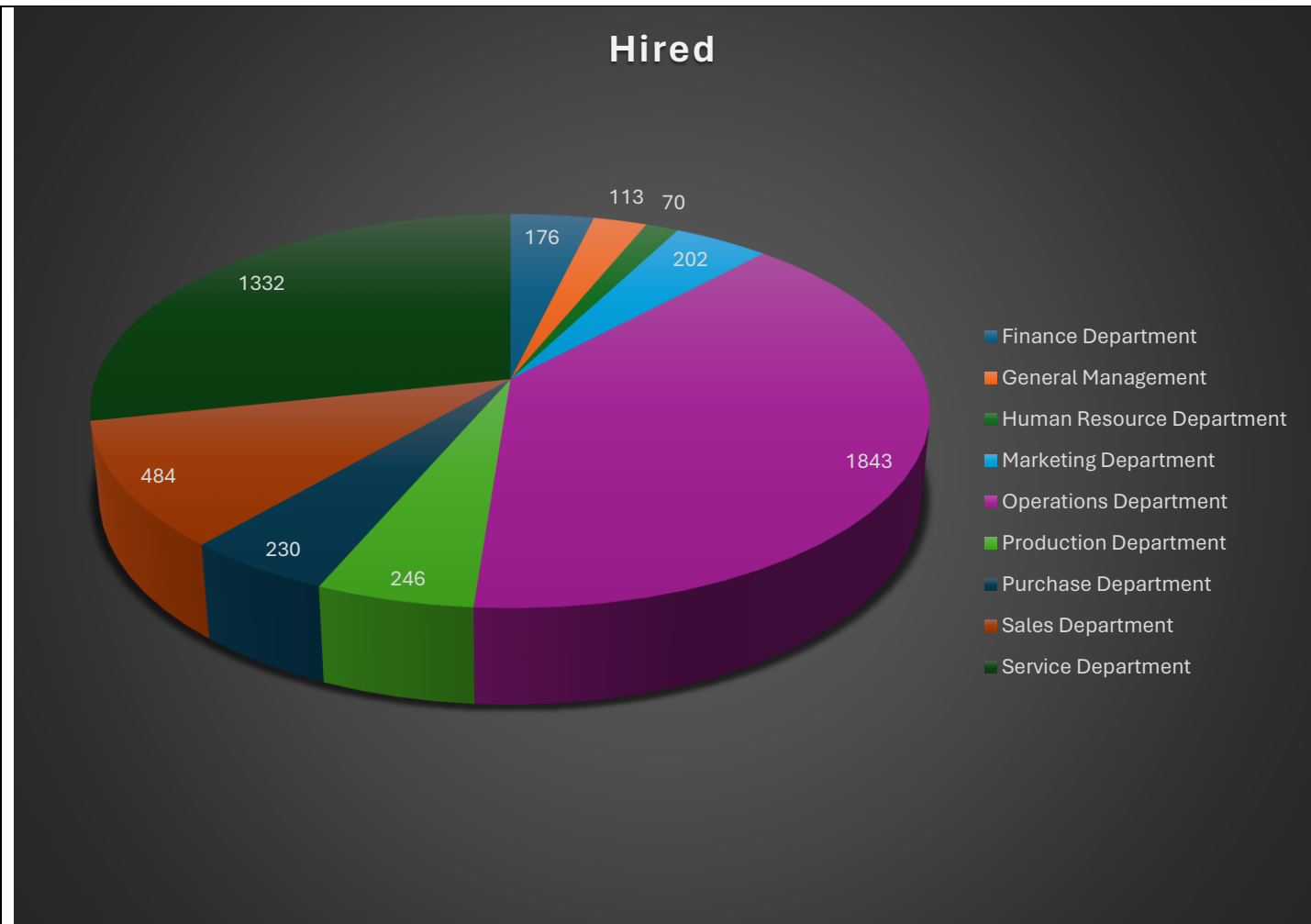
5) Position Tier Analysis

Different positions within a company often have different tiers or levels.

Your Task: Use a chart or graph to represent the different position tiers within the company. This will help you understand the distribution of positions across different tiers.

Count of Status	Column Labels		
Row Labels	Hired	Rejected	Grand Total
b9	308	155	463
c-10	105	127	232
c5	1182	565	1747
c8	193	127	320
c9	1239	553	1792
i1	151	71	222
i4	32	56	88
i5	511	276	787
i6	337	190	527
i7	635	347	982
m6	2	1	3
m7		1	1
n10		1	1
n6	1		1
n9		1	1
Grand Total	4696	2471	7167

	b9	c-10	c5	c8	c9	i1	i4	i5	i6	i7	m6	m7	n10	n6	n9
Hired	308	105	1182	193	1239	151	32	511	337	635	2			1	
Rejected	155	127	565	127	553	71	56	276	190	347	1	1	1		1

Outliers Analysis

1) Outliers detection

Q1		25460.5		
Q3		74418.5		
IQR		48958		
LOWEST	-47976.5		HIGHEST	147855.5

2) Number of outliers

NORMAL VALUES	7164
OUTLIERS	3

Outliers Removal

Offered Salary	Outliers	CLEANED	VALUES AFTER OUTLIERS
56553	FALSE	56553	100
22075	FALSE	22075	800
70069	FALSE	70069	1007
3207	FALSE	3207	1022
29668	FALSE	29668	1027
69904	FALSE	69904	1035
11758	FALSE	11758	1038

15156	FALSE	15156	1042
49515	FALSE	49515	1074
26990	FALSE	26990	1079
200000	FALSE	0	1105
86787	FALSE	86787	1141
2308	FALSE	2308	1155
56688	FALSE	56688	1177
81757	FALSE	81757	1185
15134	FALSE	15134	1188
100	FALSE	100	1210
73579	FALSE	73579	1212
50351	FALSE	50351	1216
38462	FALSE	38462	1251
82510	FALSE	82510	1258
52554	FALSE	52554	1262
3423	FALSE	3423	1282
88744	FALSE	88744	1304
70979	FALSE	70979	1326
99574	FALSE	99574	1346
52176	FALSE	52176	1351
61432	FALSE	61432	1352
87884	FALSE	87884	1362
56229	FALSE	56229	1386
37947	FALSE	37947	1389
88057	FALSE	88057	1415
72843	FALSE	72843	1422
84513	FALSE	84513	1456
23129	FALSE	23129	1458
73304	FALSE	73304	1459
85176	FALSE	85176	1460
31854	FALSE	31854	1461
11970	FALSE	11970	1469
2085	FALSE	2085	1487
800	FALSE	800	1513
41402	FALSE	41402	1516
48028	FALSE	48028	1519
22832	FALSE	22832	1524

5664	FALSE	5664	1531
89786	FALSE	89786	1536
51645	FALSE	51645	1537
60294	FALSE	60294	1611
53465	FALSE	53465	1619
52285	FALSE	52285	1632
2013	FALSE	2013	1635
98622	FALSE	98622	1646
68666	FALSE	68666	1659
67434	FALSE	67434	1666
12624	FALSE	12624	1676
68466	FALSE	68466	1686
27418	FALSE	27418	1710
9009	FALSE	9009	1731
40831	FALSE	40831	1736
85140	FALSE	85140	1740

Statstical Analysis:

Offered Salary	VALUES AFTER OUTLIERS		Before Removing Outliers	
	56553	100		
	22075	800		
	70069	1007		
	3207	1022	Mean	49978.01493
	29668	1027	Median	49625
	69904	1035	Mode	72843
	11758	1038	STD	28851.05436
	15156	1042	Standard	
	49515	1074	Variance	832383337.7
	26990	1079	Range	399900
	200000	1105	Min	100
	86787	1141	Max	400000
	2308	1155	count	7167

56688	1177		
81757	1185	**After Removing Outliers**	
15134	1188		
100	1210		
73579	1212	Mean	49873.31561
50351	1216	median	49614.5
38462	1251	Mode	20666
82510	1258	STD	28350.45112
52554	1262	Standard	
3423	1282	Variance	803748078.7
88744	1304	Range	99867
70979	1326	Min	100
99574	1346	Max	99967
52176	1351	Count	7164
61432	1352		
87884	1362		
56229	1386		
37947	1389		
88057	1415		
72843	1422		
84513	1456		
23129	1458		
73304	1459		
85176	1460		
31854	1461		
11970	1469		
2085	1487		
800	1513		
41402	1516		
48028	1519		
22832	1524		
5664	1531		
89786	1536		
51645	1537		
60294	1611		
53465	1619		
52285	1632		

2013	1635
98622	1646
68666	1659
67434	1666
12624	1676
68466	1686
27418	1710
9009	1731
40831	1736
85140	1740
1141	1752
39485	1763
84675	1770
33631	1808
45288	1817
46980	1887
25621	1889
6472	1898
25239	1911
94869	1917