

## Analytics: Principals & Applications Homework 2

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### Question 4: Scatterplot between Sales price and Lot cost



### Question 9: Banking data excel file

#### 9.1 Data Bars to visualize the relative values of Median Home Value

**Relative Median Home Value**

	0.016801365
	0.015034003
	0.013096887
	0.013307198
	0.012474672
	0.014253229
	0.016632621
	0.013752778
	0.025338126
	0.016708138
	0.011332186
	0.017835026
	0.010947259
	0.012938971
	0.017886319
	0.01463834
	0.011294106
	0.013190298
	0.010336514
	0.011646735
	0.021186417
	0.009702278
	0.009556566
	0.00980881
	0.008796804
	0.009518761
	0.010484061
	0.008678161
	0.011251347
	0.012335108
	0.00969402
	0.010500486
	0.008517033
	0.009402319
	0.008530613
	0.009592351
	0.008501801
	0.009674108
	0.009950852
	0.010261914
	0.009248165
	0.013684693
	0.008613838
	0.008762028
	0.009669245
	0.009770271
	0.010650512
	0.00981349
	0.011899988
	0.009969938
	0.008217165
	0.009949476
	0.008507123
	0.008454912
	0.007908857
	0.009130714
	0.008327092
	0.007590271
	0.012822254
	0.00869798
	0.00866715

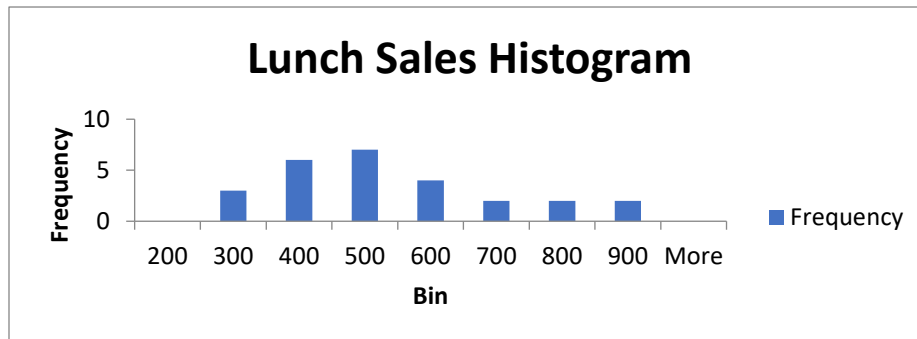
## **9.1 Color scales to visualize the relative values of Median Household Wealth**

Relative Median Household Wealth
0.019849688
0.020066493
0.015909713
0.014950595
0.013386654
0.016933396
0.018141332
0.017060817
0.018981392
0.019853375
0.01190868
0.024059433
0.016739702
0.014389205
0.010211564
0.017738567
0.009494248
0.01959143
0.010560645
0.014506555
0.029765315
0.009592174
0.009996558
0.007946494
0.012869327
0.012069732
0.012952326
0.010323068
0.014525978
0.013430087
0.011413834
0.009237967
0.01061235
0.011416532
0.011615891
0.007947753
0.009168907
0.003976664
0.008543852
0.012088706
0.011193073
0.009144717
0.011968838
0.009460077
0.012517189
0.008530723
0.016699956
0.012169187
0.015736521
0.012654501
0.007204989
0.00826644
0.005460213
0.013131273
0.008882412
0.008843296
0.011385418
0.009473026
0.002247985
0.013238641
0.008255469
0.012926428
0.004896576
0.009933342

**9.3 Icon set to show high, medium, and low bank balances, where high is above \$30,000, low is below \$10,000, and medium is anywhere in between.**

Average Bank Balance	
↑	\$38,517
↑	\$40,618
↑	\$35,206
↑	\$33,434
→	\$28,162
↑	\$36,708
↑	\$38,766
↑	\$34,811
↑	\$41,032
↑	\$41,742
→	\$29,950
↑	\$51,107
↑	\$34,936
↑	\$32,387
↑	\$32,150
↑	\$37,996
→	\$24,672
↑	\$37,603
→	\$26,785
↑	\$32,576
↑	\$56,569
→	\$26,144
→	\$24,558
→	\$23,584
→	\$26,773
→	\$27,877
→	\$28,507
→	\$27,096
→	\$28,018
↑	\$31,283
→	\$24,671
→	\$25,280
→	\$24,890
→	\$26,114
→	\$27,570
→	\$20,826
→	\$23,858
→	\$20,834
→	\$26,542
→	\$27,396
↑	\$31,054
→	\$29,198
→	\$24,650
→	\$23,610
→	\$29,706
→	\$21,572
↑	\$32,677
→	\$29,347
→	\$29,127
→	\$27,753
→	\$21,345
→	\$28,174
→	\$19,125
→	\$29,763
→	\$22,275
→	\$27,005
→	\$24,076
→	\$22,222

**Question 23: Histogram of frequency distribution of lunch sales amounts in the *Restaurant Sales* database.**



**Question 24: Relative frequency and cumulative relative frequency of the age group**

Age	Frequency	Relative Frequency	Cumulative Relative Frequency
18 to 29	297	0.147687718	0.147687718
30 to 45	743	0.369467926	0.517155644
46 to 64	602	0.299353555	0.816509199
65 +	369	0.183490801	1

**Question 31: 10th and 90th percentiles and 1st, 2nd, and 3rd quartiles for the combined amounts of checking and savings accounts in the Excel file *Credit Risk Data*.**

10 th Percentile	194
90 th Percentile	9098.2
1st Quartile	490
2nd Quartile	836
3rd Quartile	2632

**Question 39: Pivot Table**

**39.1: a cross-tabulation of gender and body type versus BMI classification**

Count of BMI Classification		Column Labels		
Row Labels		Muscular	Obese	Grand Total
F			10	10
	Athletic		3	3
	Average		4	4
	Round		1	1
	Thin		2	2
M		4	9	13
	Athletic		3	3
	Average		4	4
	Muscular	4	1	5
	Round		1	1
Grand Total		4	19	23

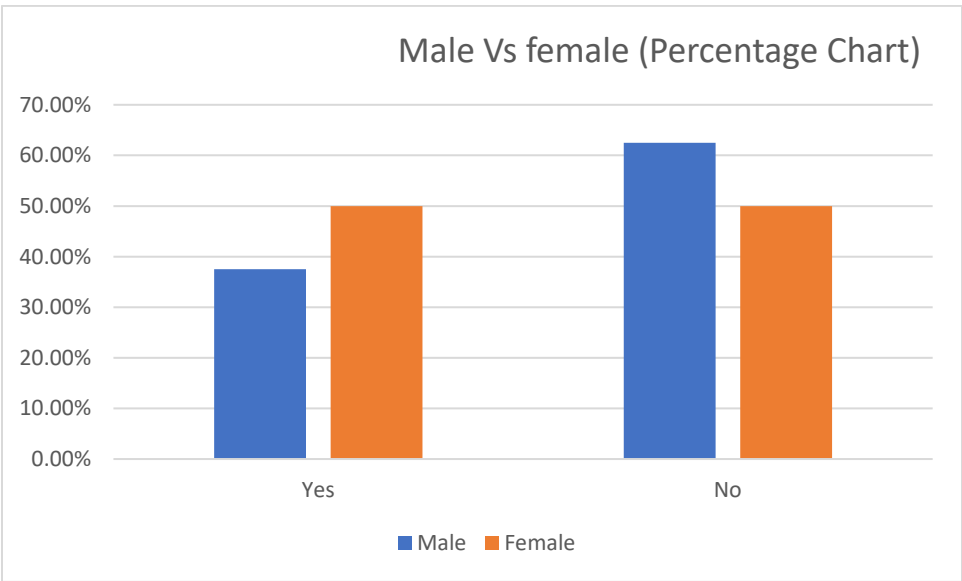
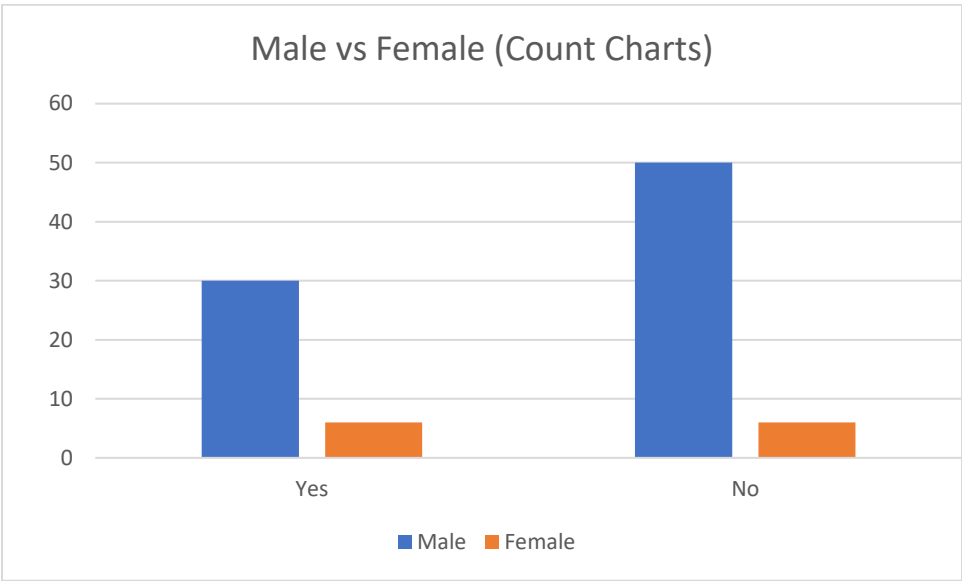
**39.2: Average running times, run distance, weight lifting days, lifting session times, and time spent in the gym by gender.**



Count of Gender		Column Labels		
Row Labels		F	M	Grand Total
0.00		1	4	5
0		1	1	2
0		1	1	2
0		1	1	2
0		1	1	2
60			1	1
0			1	1
207			1	1
3			1	1
75			2	2
0			2	2
204			1	1
3			1	1
345			1	1
5			1	1
0.12			1	1
150			1	1
1			1	1
363.75			1	1
5			1	1
0.25		1	1	2
30		1		1
1.5		1		1
207		1		1
3		1		1
60			1	1
2			1	1
136			1	1
2			1	1
0.33		1		1
90		1		1
2		1		1
305		1		1
5		1		1
0.42		1		1
30		1		1
2		1		1
130		1		1
2		1		1
0.50		1	6	7
0		1		1
3		1		1
0		1		1
0		1		1

Question 41: Marketing Research Survey

	Yes	No	Yes	No
Male	30	50	37.50%	62.50%
Female	6	6	50.00%	50.00%



Visually, the percentage chart is more helpful to get an idea on the data. Example: More than 60 percent men said No in the survey is a better understanding on majority of men answered no compared to the chart that says 50 men said No.