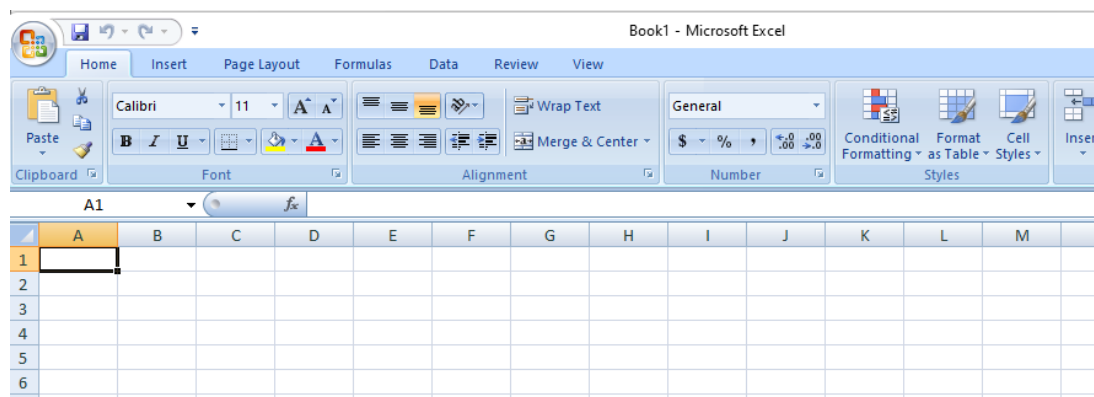


Document highlight:

- Tool and Data setup
- Data Cleanup
- Build the pivot tables and its corresponding chart visualization
 - Average Income by Biker's Gender
 - Count of Purchased Bike by Biker's Commute Distance
 - Count of Purchased Bike by Biker's Age Group
- Create the visualization dashboard

1. Setup Microsoft Excel



2. Dataset

Sampling dataset:

<https://www.kaggle.com/datasets/unica02/data-on-bike-buyers-by-using-ms-excel>

Excel Project Dataset (bike buyers) 2024-11-08 9:32 AM Micros

The screenshot shows the Microsoft Excel interface with the dataset loaded. The active cell is E21. The ribbon includes options for Clipboard, Font, Alignment, Number, Conditional Formatting, Format as Table, Cell Styles, Insert, Delete, and Format. The dataset is displayed in the following table:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ID	Marital Status	Gender	Income	Children	Education	Occupation	Home Owner	Cars	Commute Distance	Region	Age	Purchased Bike
2	12496	M	F	\$40,000.00	1	Bachelors	Skilled Manual	Yes	0	0-1 Miles	Europe	42	No
3	24107	M	M	\$30,000.00	3	Partial College	Clerical	Yes	1	0-1 Miles	Europe	43	No
4	14177	M	M	\$80,000.00	5	Partial College	Professional	No	2	2-5 Miles	Europe	60	No
5	24381	S	M	\$70,000.00	0	Bachelors	Professional	Yes	1	5-10 Miles	Pacific	41	Yes
6	25597	S	M	\$30,000.00	0	Bachelors	Clerical	No	0	0-1 Miles	Europe	36	Yes
7	13507	M	F	\$10,000.00	2	Partial College	Manual	Yes	0	1-2 Miles	Europe	50	No
8	27974	S	M	\$160,000.00	2	High School	Management	Yes	4	0-1 Miles	Pacific	33	Yes

3. Data cleanup

Remove duplicates

Excel Project Dataset (bike buyers) - Microsoft Excel

Home Insert Page Layout Formulas Data Review View

From Access From Web From Text From Other Sources Existing Connections Refresh All Properties Edit Links Connections Sort & Filter Filter Reapply Advanced Text to Columns Remove Duplicates Data Validation Consolidate What Analysis

Remove Duplicates

Delete duplicate rows from a sheet.

You can specify which columns should be checked for duplicate information.

ID	Marital Status	Gender	Income	Children	Education	Occupation	Home Owner	Cars	Commute Distance	Region
12496	M	F	\$40,000.00	1	Bachelors	Skilled Manual	Yes			
24107	M	M	\$30,000.00	3	Partial College	Clerical	Yes			
14177	M	M	\$80,000.00	5	Partial College	Professional	No		2-5 Miles	Europe

Sort Filter Clear Reapply Advanced Text to Columns Remove Duplicates Data Validation Consolidate What Analysis

Microsoft Office Excel

26 duplicate values found and removed; 1000 unique values remain.

OK

Spell out some of the column values instead of its respective codes

Find and Replace

Find what: M

Replace with: Married

Replace All

Microsoft Office Excel

Excel has completed its search and has made 550 replacements.

OK

Find and Replace

Find what: S

Replace with: Single

Replace All

Microsoft Office Excel

Excel has completed its search and has made 479 replacements.

OK

Gender	Income	Children	Education	Occupation	Home Owner	Cars
F	\$40,000.00	1	Bachelors	Skilled Manu	Yes	0
Male	\$30,000.00	2	Partial College	Clerical	Yes	1
Male						2
Male						1
Male						0
F						0
Male						4
Male						
Male						
F	\$90,000.00					
F	\$90,000.00					
Male	\$170,000.00					

Find and Replace

Find what: M
Replace with: Male

Replace All

Microsoft Office Excel

Excel has completed its search and has made 525 replacements.

OK

Gender	Income	Children	Education	Occupation	Home Owner	Cars
Female	\$40,000.00	1	Bachelors	Skilled Manu	Yes	0
Male	\$30,000.00	2	Partial College	Clerical	Yes	1
Male						2
Male						1
Male						0
Female						0
Male						4
Male						
Male						
Female	\$90,000.00					
Female	\$90,000.00					
Male	\$170,000.00					

Find and Replace

Find what: F
Replace with: Female

Replace All

Microsoft Office Excel

Excel has completed its search and has made 501 replacements.

OK

Add a (age group) column and have a formula that is tied with the “Age” value

Excel Project Dataset (bike buyers) - Microsoft Excel

Home Insert Page Layout Formulas Data Review View

Normal Page Layout Page Break Preview Custom Views Full Screen

Zoom 100%

Zoom to Selection

New Window

Arrange All

Freeze Panes

Unhide

View Side by Side

Synchronous Scrolling

Reset Window Position

Save Workspace

Switch Windows

Macros

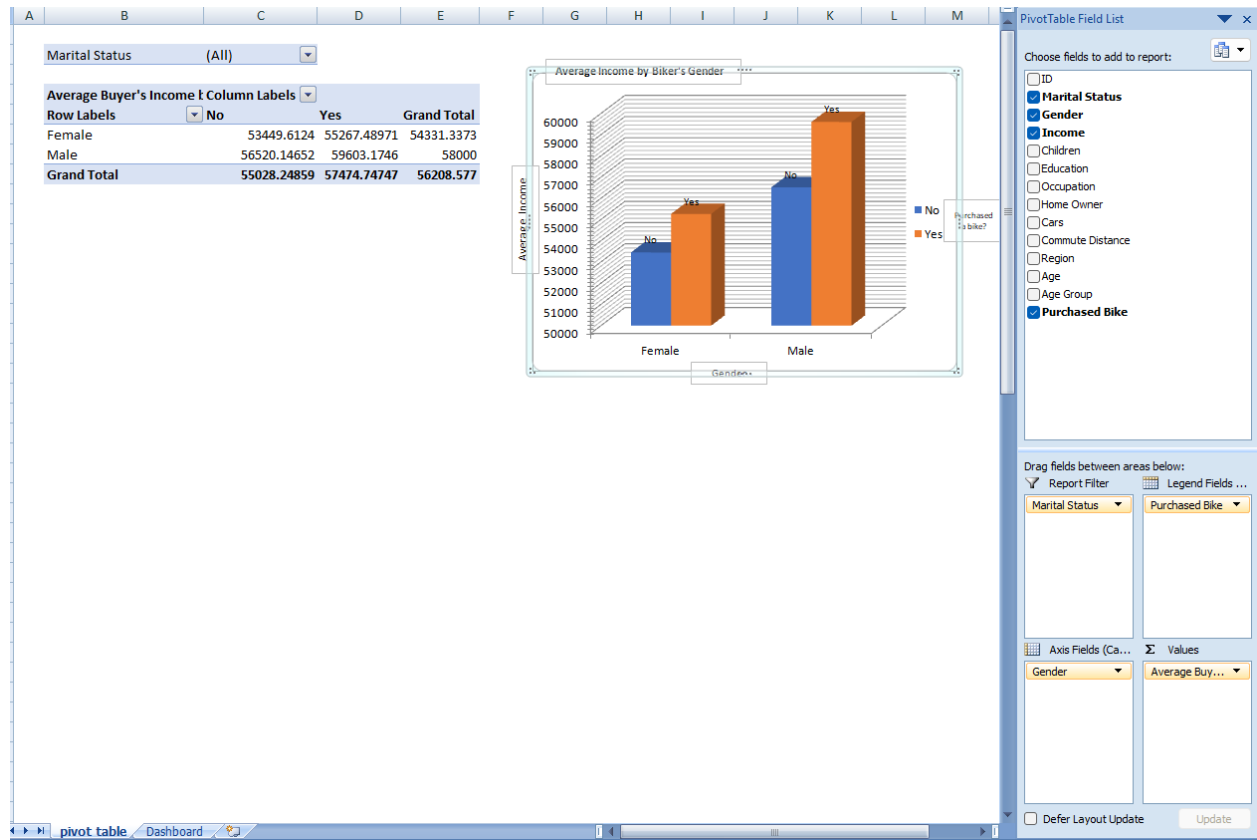
M2

=IF(L2>54,"Old",IF(L2>=31,"Middle Age",IF(L2<31,"Adolescent","Invalid")))

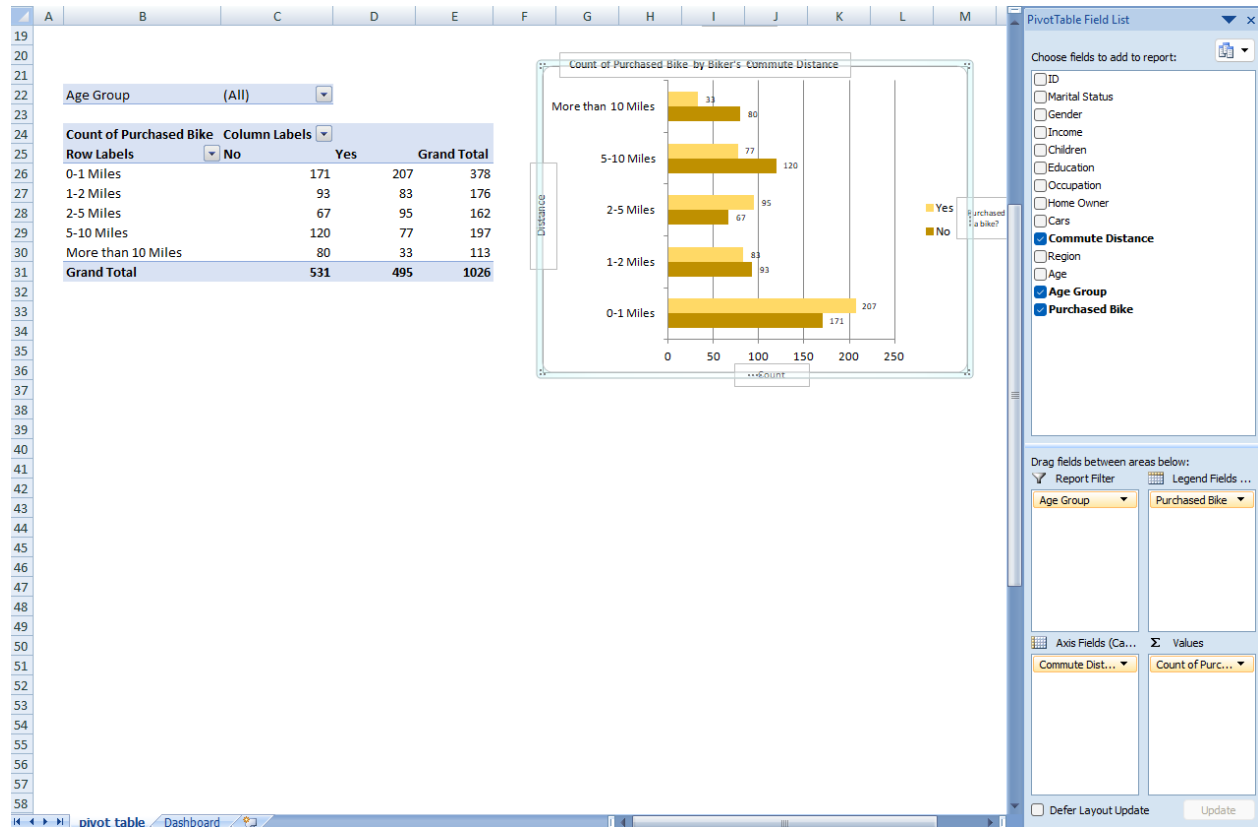
	C	D	E	F	G	H	I	J	K	L	M	N
	Gender	Income	Children	Education	Occupation	Home Owner	Cars	Commute Distance	Region	Age	Age Bracket	Purchased Bike
26	Male	\$40,000	2	Partial College	Clerical	No		1 0-1 Miles	Europe	34	Middle Age	No
27	Male	\$30,000	1	Bachelors	Clerical	Yes		0 0-1 Miles	Europe	63	Old	No
28	Male	\$30,000	0	Partial College	Clerical	No		1 0-1 Miles	Europe	29	Adolescent	Yes

4. Build the pivot tables and its corresponding chart visualization

Average Income by Biker's Gender



Count of Purchased Bike by Biker's Commute Distance



Cars

(All)

Count of Purchased Bike

Column Labels

Row Labels	No	Yes	Grand Total
Adolescent	71	41	112
Middle Age	326	393	719
Old	134	61	195
Grand Total	531	495	1026

Count of Purchased Bike by Biker's Age Group

Age Group	No (Count)	Yes (Count)
Adolescent	71	41
Middle Age	326	393
Old	134	61

PivotTable Field List

Choose fields to add to report:

- ☐ ID
- ☐ Marital Status
- ☐ Gender
- ☐ Income
- ☐ Children
- ☐ Education
- ☐ Occupation
- ☐ Home Owner
- ☒ Cars
- ☐ Commute Distance
- ☐ Region
- ☐ Age
- ☒ Age Group
- ☒ Purchased Bike

Drag fields between areas below:

Report Filter

Legend Fields

Axis Fields (Ca...)

Values

Cars

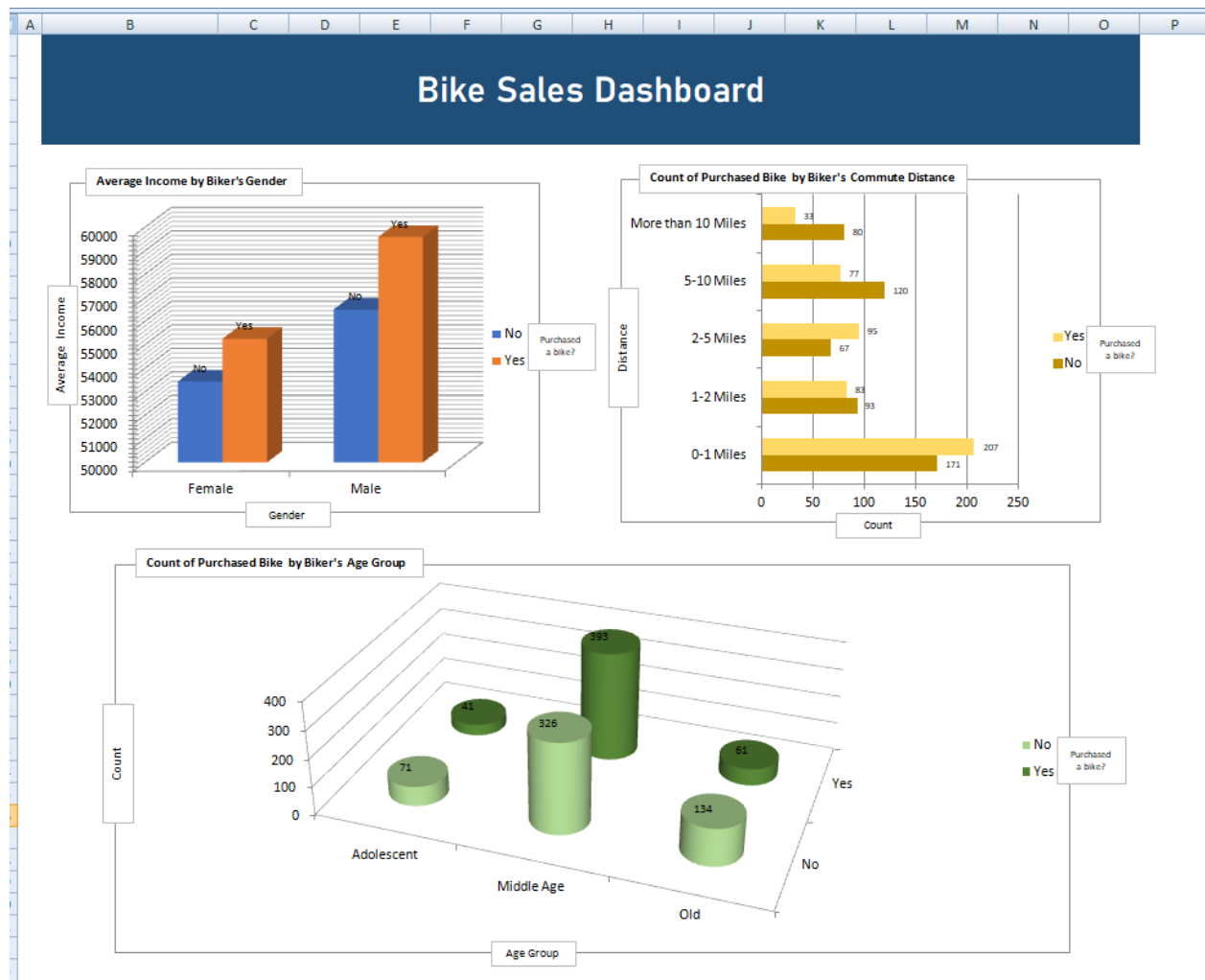
Age Group

Purchased Bike

Count of Purc...

☐ Defer Layout Update

5. Create the visualization dashboard



*****END*****