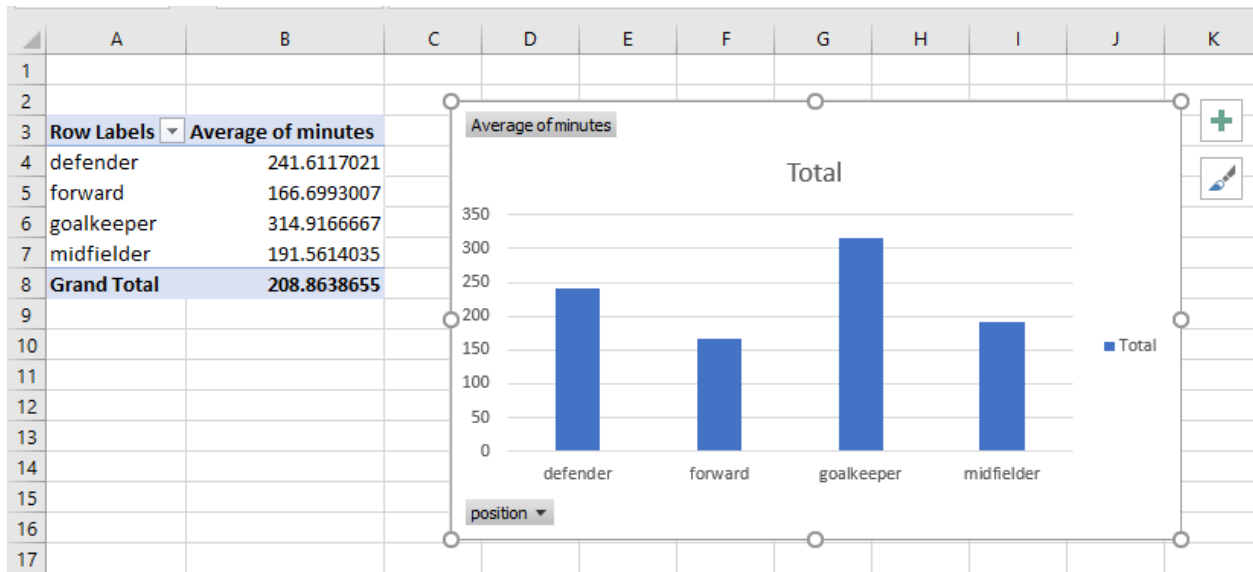# CHONGQING UNIVERSITY OF TECHNOLOGY

ASSIGNMENT-2: SPREADSHEET DATA VISUALIZATION
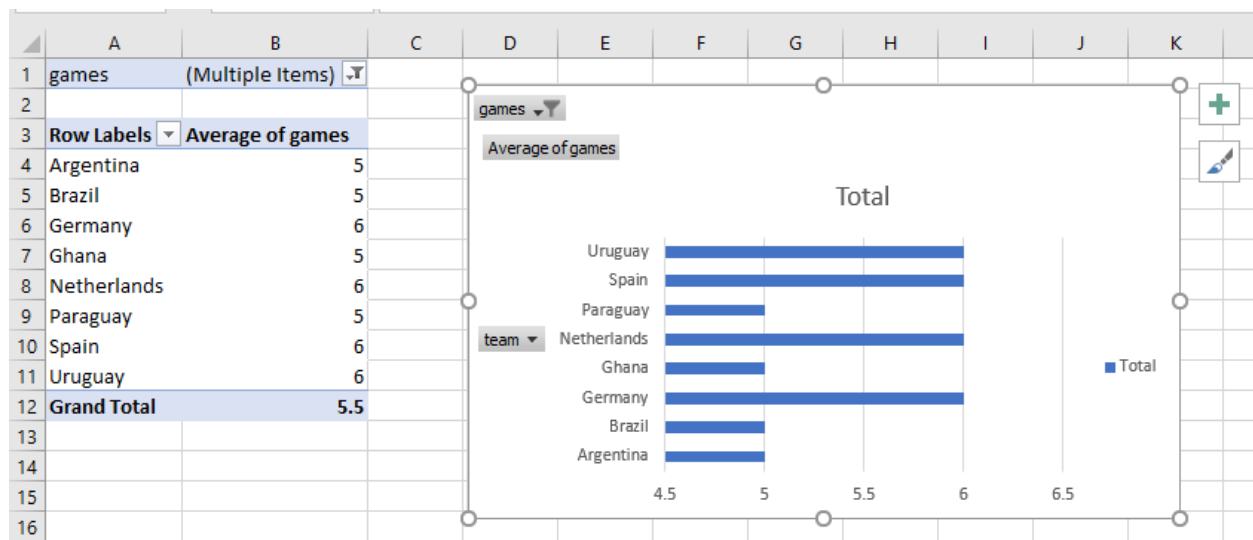法希姆-62019010100

• World Cup Data

Problem 11. Create a bar chart showing the average number of minutes played by players in each position.

Answer-11: "pivot table" for Data analyzing and "Bar chart" for Data Visualization.

	A	B
3	Row Labels	Average of minutes
4	defender	241.6117021
5	forward	166.6993007
6	goalkeeper	314.9166667
7	midfielder	191.5614035
8	Grand Total	208.8638655

Average of minutes

Total

(bar chart: defender ≈ 241, forward ≈ 166, goalkeeper ≈ 314, midfielder ≈ 191, y-axis 0–350)
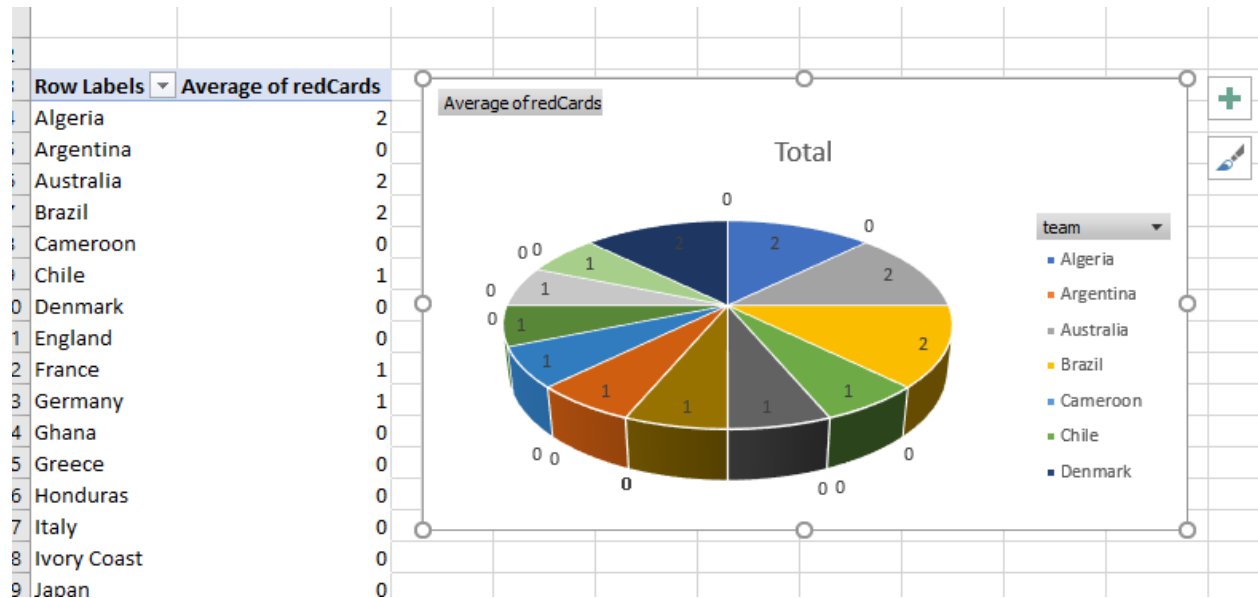
■ Total

position ▾

Problem 12. Create a stacked bar chart showing teams that played more than 4 games, with their total number of games divided into wins, draws, and losses.

Answer-12: "pivot table" for Data analyzing and "Stacked Bar chart" for Data Visualization.

	A	B
1	games	(Multiple Items)
3	Row Labels	Average of games
4	Argentina	5
5	Brazil	5
6	Germany	6
7	Ghana	5
8	Netherlands	6
9	Paraguay	5
10	Spain	6
11	Uruguay	6
12	Grand Total	5.5

games ▾

Average of games

Total

(horizontal bar chart: Uruguay, Spain, Paraguay, Netherlands, Ghana, Germany, Brazil, Argentina; x-axis 4.5–6.5)
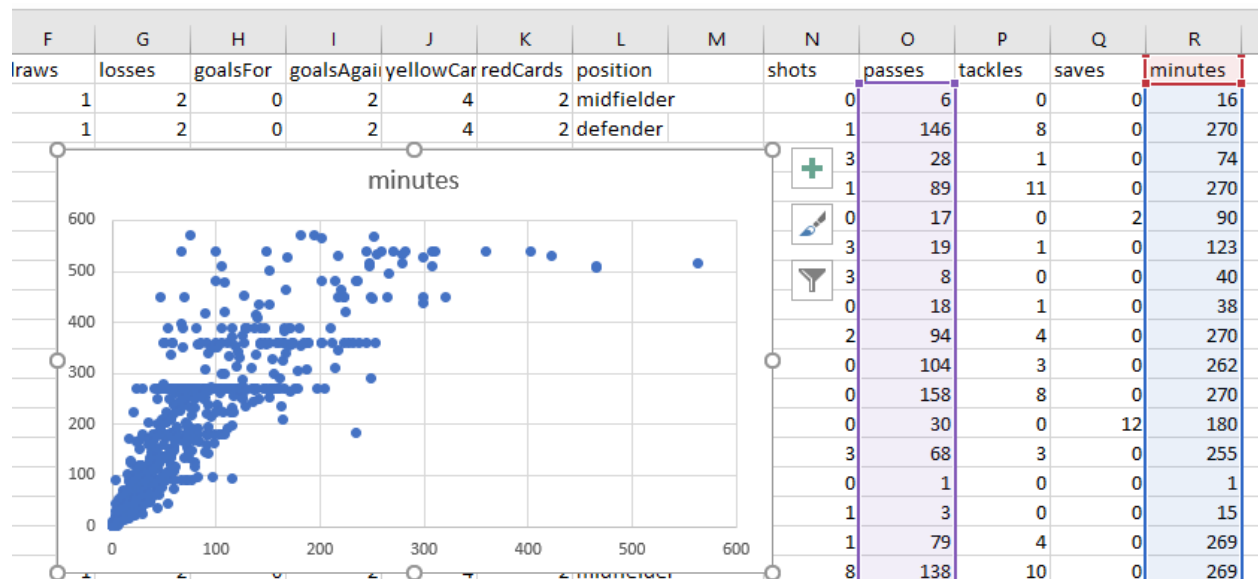
team ▾

■ Total

Problem 13. Create a pie chart showing the relative percentage of teams with 0, 1, and 2 red cards.

Answer-13: "pivot table" for Data analyzing and **"Pie chart"** for Data Visualization.

Row Labels	Average of redCards
Algeria	2
Argentina	0
Australia	2
Brazil	2
Cameroon	0
Chile	1
Denmark	0
England	0
France	1
Germany	1
Ghana	0
Greece	0
Honduras	0
Italy	0
Ivory Coast	0
Japan	0

Average of redCards

Total

team
- Algeria
- Argentina
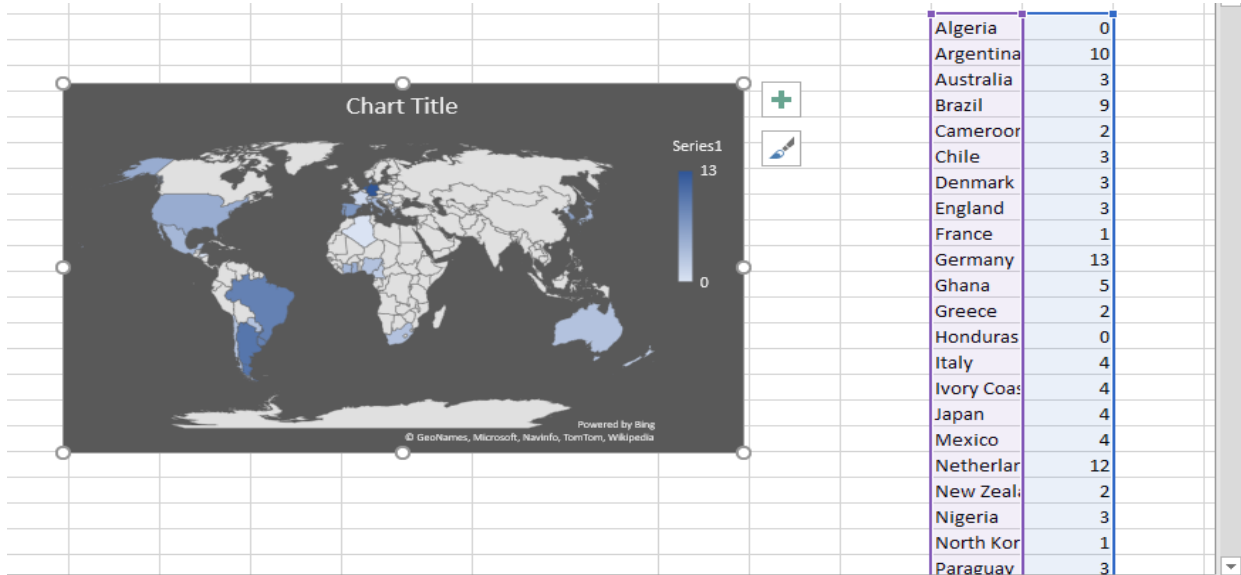- Australia
- Brazil
- Cameroon
- Chile
- Denmark

Problem 14. Create a scatterplot of players showing passes (x-axis) versus minutes (y-axis). (If you know anything about the World Cup you might think about why there are lines of dots.)

Answer-14: Used **"Scatterplot"** for Data Visualization.

		F	G	H	I	J	K	L	M		N	O	P	Q	R
	draws	losses	goalsFor	goalsAgai	yellowCar	redCards	position			shots	passes	tackles	saves	minutes
1	2	0	2	4	2	midfielder			0	6	0	0	16
1	2	0	2	4	2	defender			1	146	8	0	270
									3	28	1	0	74
									1	89	11	0	270
									0	17	0	2	90
									3	19	1	0	123
									3	8	0	0	40
									0	18	1	0	38
									2	94	4	0	270
									0	104	3	0	262
									0	158	8	0	270
									0	30	0	12	180
									3	68	3	0	255
									0	1	0	0	1
									1	3	0	0	15
									1	79	4	0	269
									8	138	10	0	269

minutes

Problem 15. Create a map of countries colored light to dark blue based on how many goals their team made ("goalsFor").

Answer-15: "pivot table" for Data analyzing and "Map" for Data Visualization.

Algeria	0
Argentina	10
Australia	3
Brazil	9
Cameroon	2
Chile	3
Denmark	3
England	3
France	1
Germany	13
Ghana	5
Greece	2
Honduras	0
Italy	4
Ivory Coas	4
Japan	4
Mexico	4
Netherlar	12
New Zeal:	2
Nigeria	3
North Kor	1
Paraguay	3

- ## Titanic Data

Problem 16. Create a bar chart showing the average fare paid by passengers in each class. The three bars should be labeled "first", "second", "third".

Answer-16: "pivot table" for Data analyzing and "Bar chart" for Data Visualization. Data has been labeled as well.

Row Labels	Average of fare
1	84.1546875
2	20.66218315
3	13.6755501
Grand Total	32.20420797
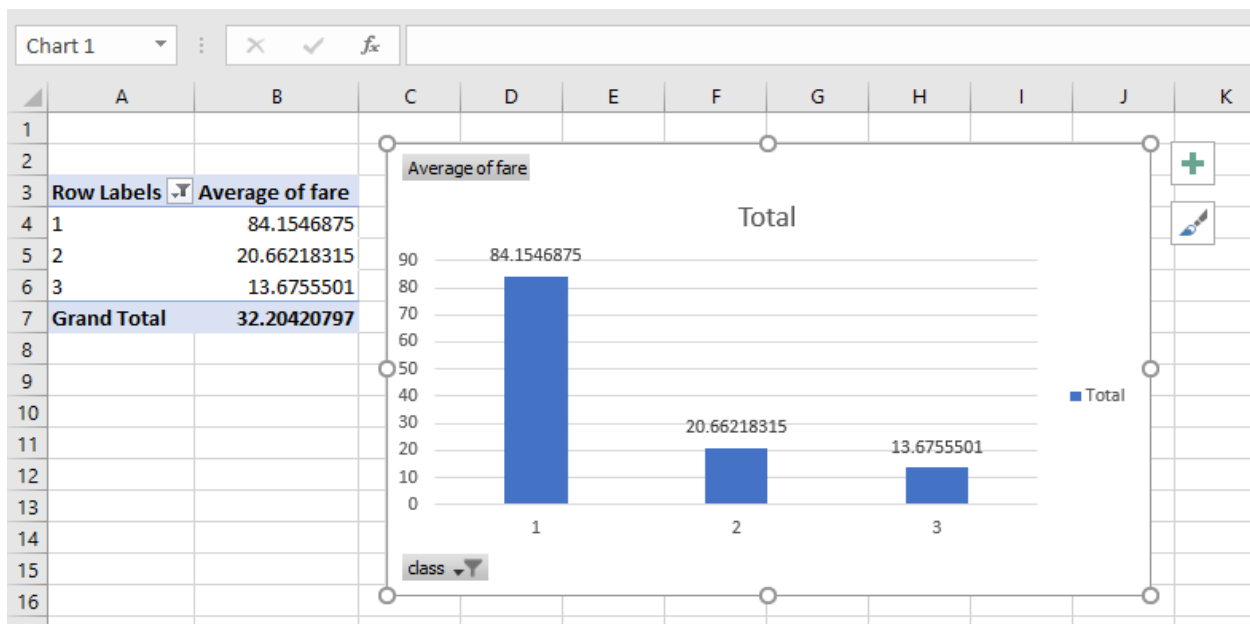
Problem 17. Create a stacked bar chart showing the number of passengers in each class, divided into male and female (three bars). Then reverse roles and show the number of passengers of each gender, divided into class (two bars).

Answer-17: "pivot table" for Data analyzing and "Stacked Bar chart" for Data Visualization. Number of passengers in each class has shown is **figure-17.1** and number of passengers of each gender has shown in **figure-17.2**.
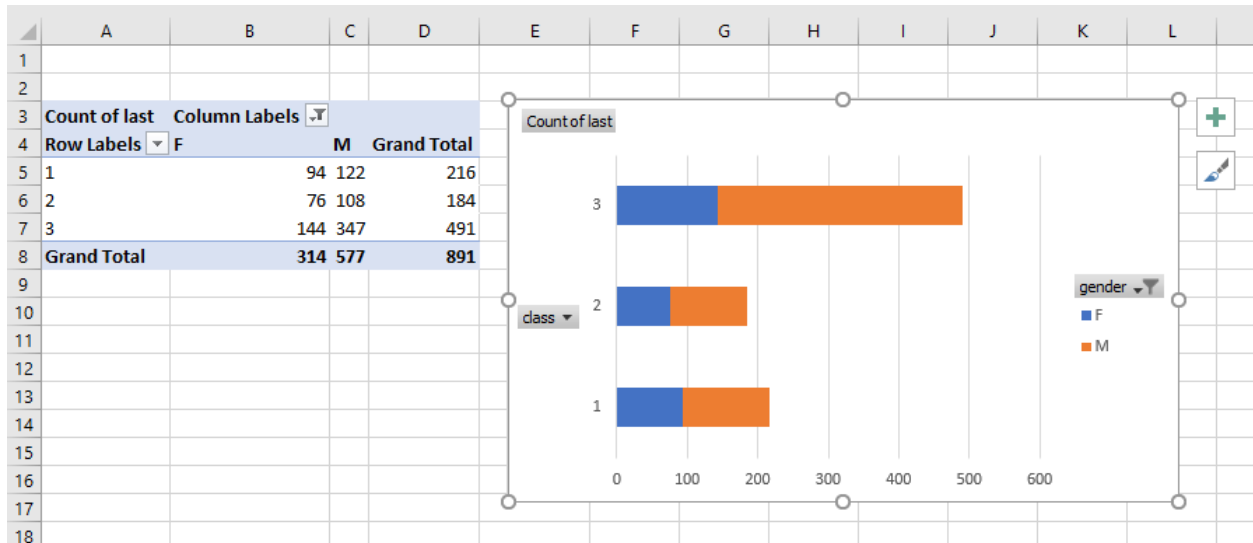

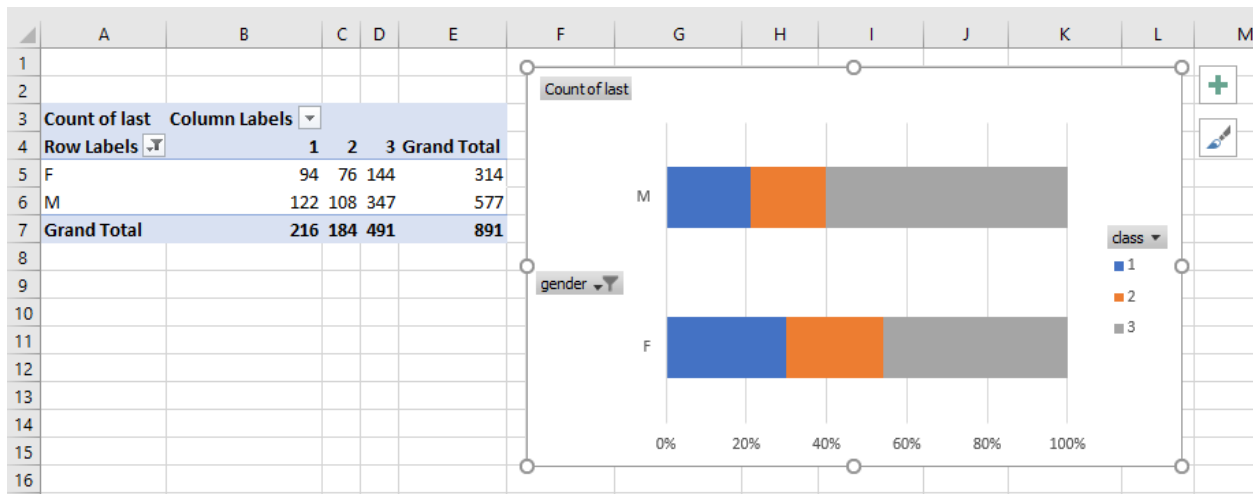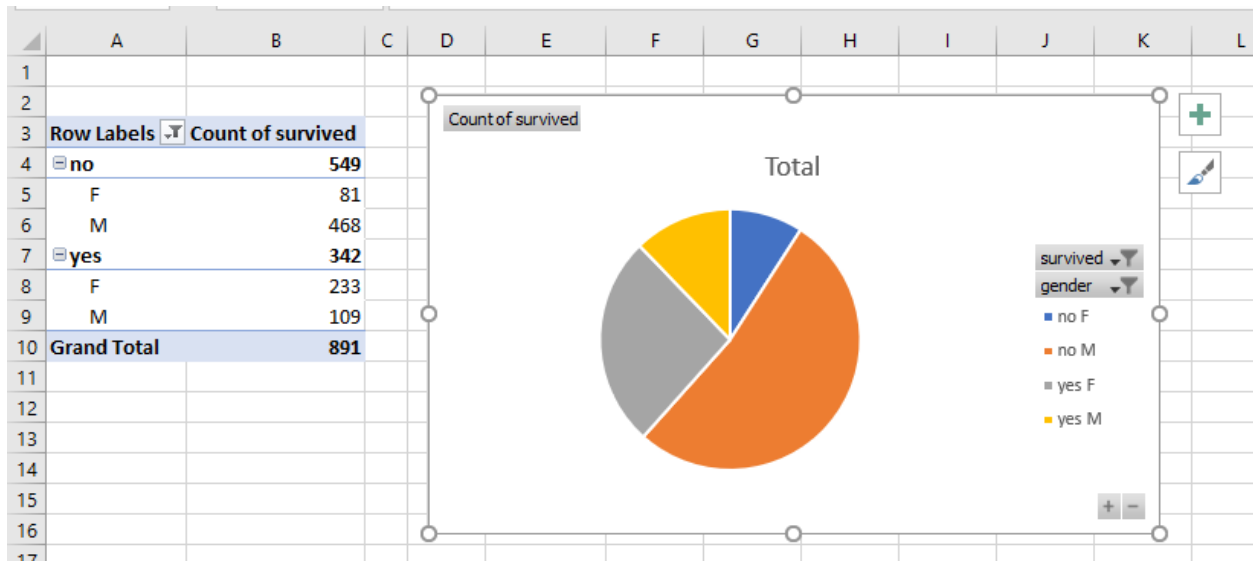**Figure-17.1:** Passengers in each class

Figure-17.2: Passengers in each gender

Problem 18. Create a pie chart showing the relative number of male survivors, male non-survivors, female survivors, and female non-survivors (four slices).

Answer-18: "pivot table" for Data analyzing and "Pie chart" for Data Visualization.

Row Labels	Count of survived
no	549
F	81
M	468
yes	342
F	233
M	109
Grand Total	891

Count of survived

Total

survived
gender
- no F
- no M
- yes F
- yes M

Problem 19. Let "youth" denote passengers whose age is under 18, "adult" denote passengers age 18-59, and "senior" denote passengers whose age is 60 and above. Create a pie chart with four slices showing the relative number of youth, adult, senior, and those whose age is unknown. Hint: consider using function ==if(*,*,if(*,*,*))..

Answer-19: "pivot table" for Data analyzing and "Pie chart" for Data Visualization.

Row Labels	Count of Number of Adult,Youth, Senior,Unknown
Adult	575
Senior	26
Unknown	177
Youth	113
Grand Total	891

Count of Number of Adult,Youth, Senior,Unknown

Total

Number of Adult,Youth,...
- Adult
- Senior
- Unknown
- Youth