EX NO: 4.	Create and publish Power BI reports	NAME:
DATE:		ROLL NO:

AIM:

To analyze the given data of heart diseases and bring about effective visualization based on given data using power Bi.

STEPS TO PERFORM IN POWER BI:

STEP 1: Import the data set named heart_2020_cleaned.csv into the power Bi console by using the following commands and steps:

GET DATA -> EXCEL WPRKBOOK -> heart_2020_cleaned.csv-> TRANSFORM DATA -> APPLY & CLOSE

STEP 2: In the power query editor make the changes to be done and click close and apply in the file tab.

STEP 3: After committing changes it will be directed to Power Bi desktop and ready for visualization.

EXPERIMENT:

1. Find out the impact of the Smoking for Heart Disease by Age Category?

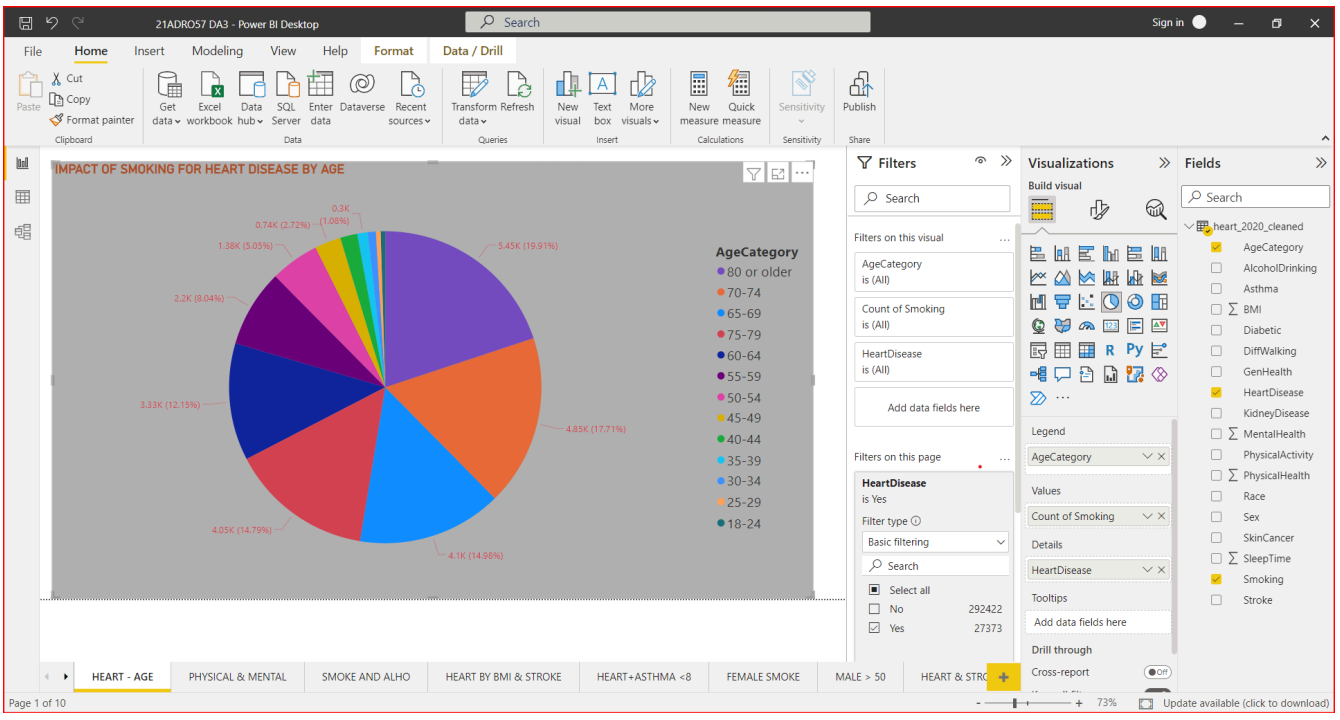
Procedure:

STEP 1: Go to the report view and then click on the pie chart from the visualizations.

STEP 2: Select age category and add it to legends, select heart disease and add it to details.

STEP 3: Then under the visualizations on values add smoking, right click it and select count.

OUTPUT:



INFERENCE:

1. Age 18-24: 0.47%
2. Age 25-29: 5.3%
3. Age 30-34: 5.86%
4. Age 35-39: 6.57
5. Age 40-44: 6.58%
6. Age 45-49: 2.72%
7. Age 50-54: 5.05%
8. Age 55-59: 8.04%
9. Age 60-64: 12.15%
10. Age 65-69: 14.98%
11. Age 70-74: 14.79%
12. Age 75-79: 17.71%
13. Age 80-older: 19.91%

2. Is there any direct relation for Physical Health and Mental Health for heart patient by race?

Procedure:

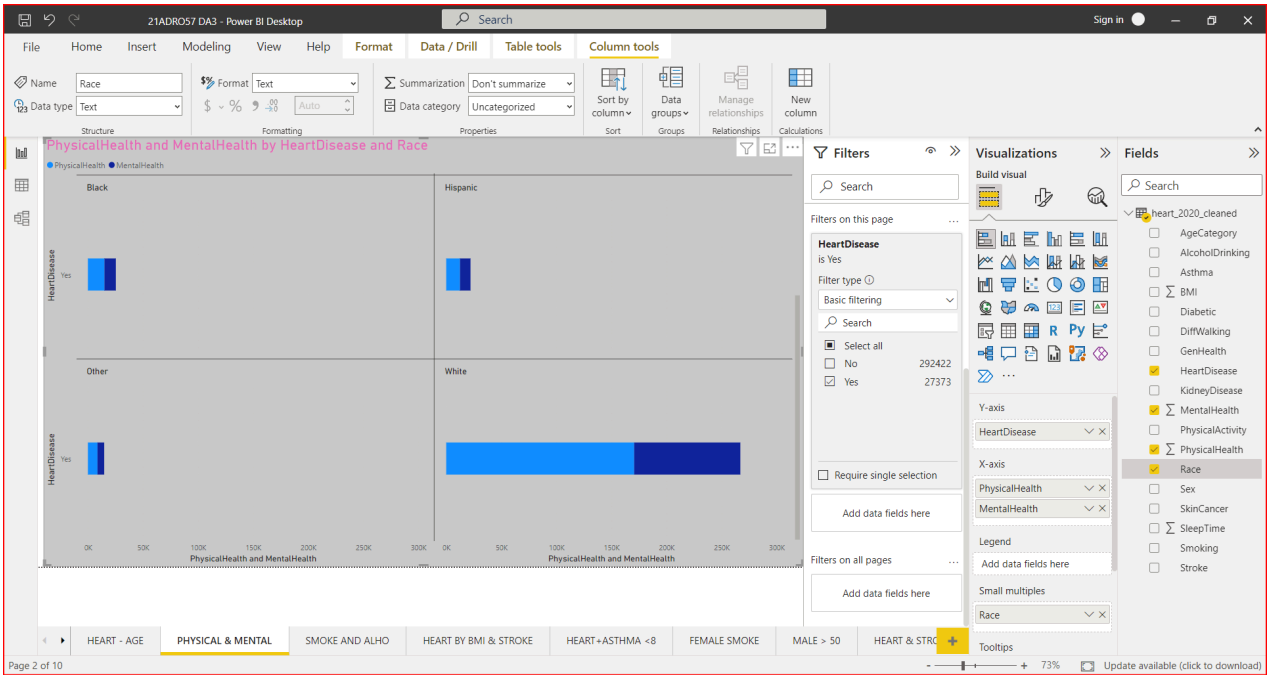
STEP 1: Go to the report view and then click on the stacked bar chart from the visualizations.

STEP 2: Select heart disease to Y axis then Mental and physical health to X axis

STEP 3: Then under the visualizations add RACE to small multiples.

STEP 4: Then under filter drag heart disease and select only YES.

OUTPUT:



INFERENCE

1. White-mental health: 96384, physical health: 170664
2. Hispanic-mental health: 9543, physical health:12514
3. Black-mental health: 10315, physical health: 15011
4. Asian-mental health: 984, physical health:1350
5. American Indian/Alaskan native-mental health: 3781, physical health: 5496
6. Other-mental health: 6052, physical health:8700
7.

3. Analyze the heart disease for the Patient those who are having Smoking and Alcohol Drinking at the age group of less than 40?

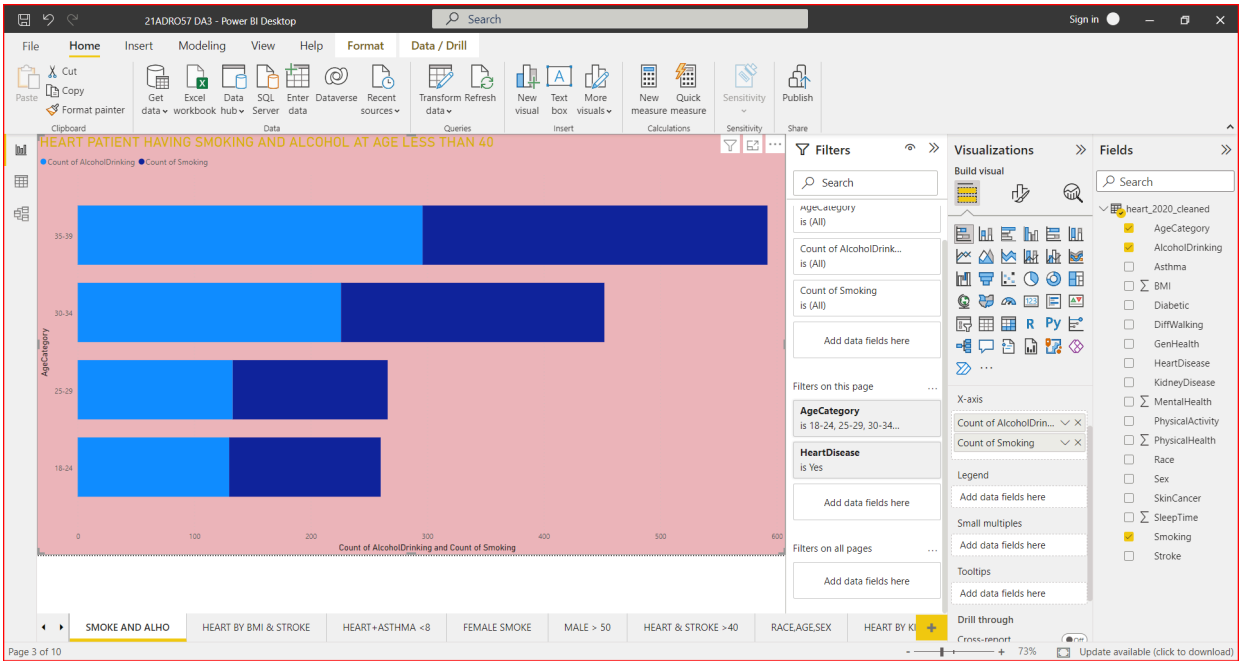
Procedure:

STEP 1: Go to the report view and then click on the stacked bar chart from the visualizations.

STEP 2: Add Age type to Y axis and Alcohol Drinking and Smoking to X axis.

STEP 3: Under filter drag Age category filter it less than 40 and in heart disease select YES.

OUTPUT:



INFERENCE:

The heart disease for the Patient those who are having Smoking and Alcohol Drinking at the age group of less than 40 is 600.

3. Figure out the chances for heart disease of the patient having High BMI index and Stroke?

PROCEDURE:

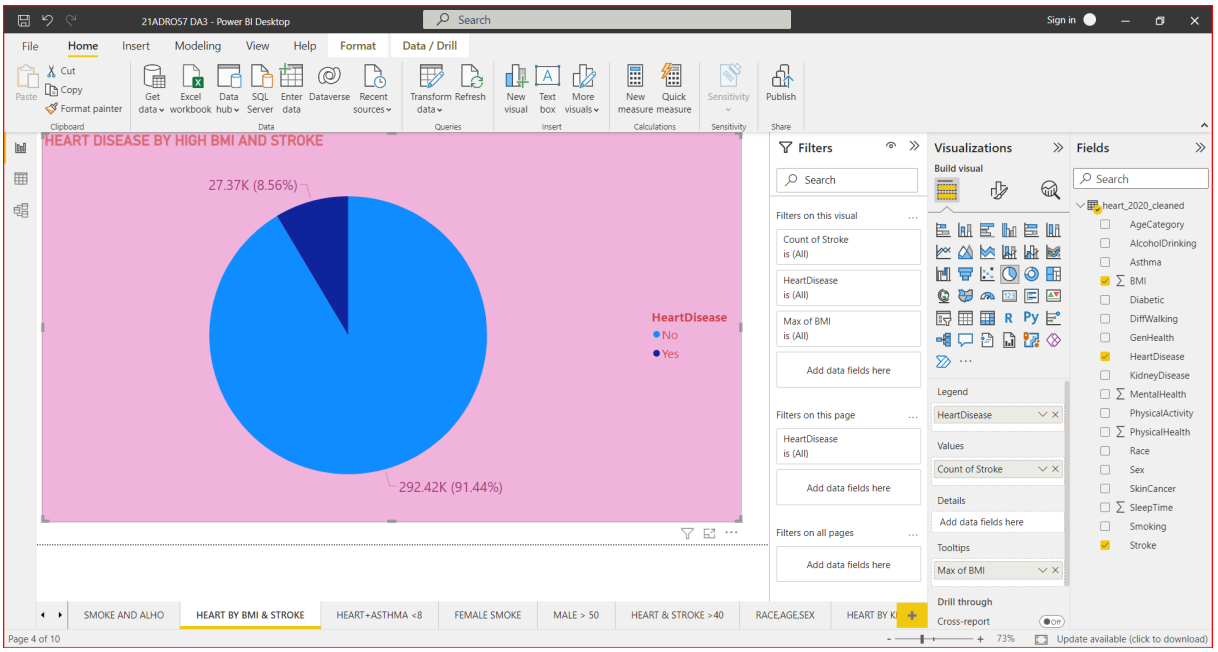
STEP 1: In the model view select a pie chart then from the fields drag and drop heart disease to Legends.

STEP 2: Add count of stroke to Values.

STEP 3: After it, add max of BMI to tooltips.

STEP 4: Under filter drag heart disease and select YES.

OUTPUT:



INFERENCE:

Thus the heart patient having HIGH IBM and stroke is visualised using pie chart.

5. Is there any effect on heart disease for the patient having Asthma with sleeping time of less than 8 hours?

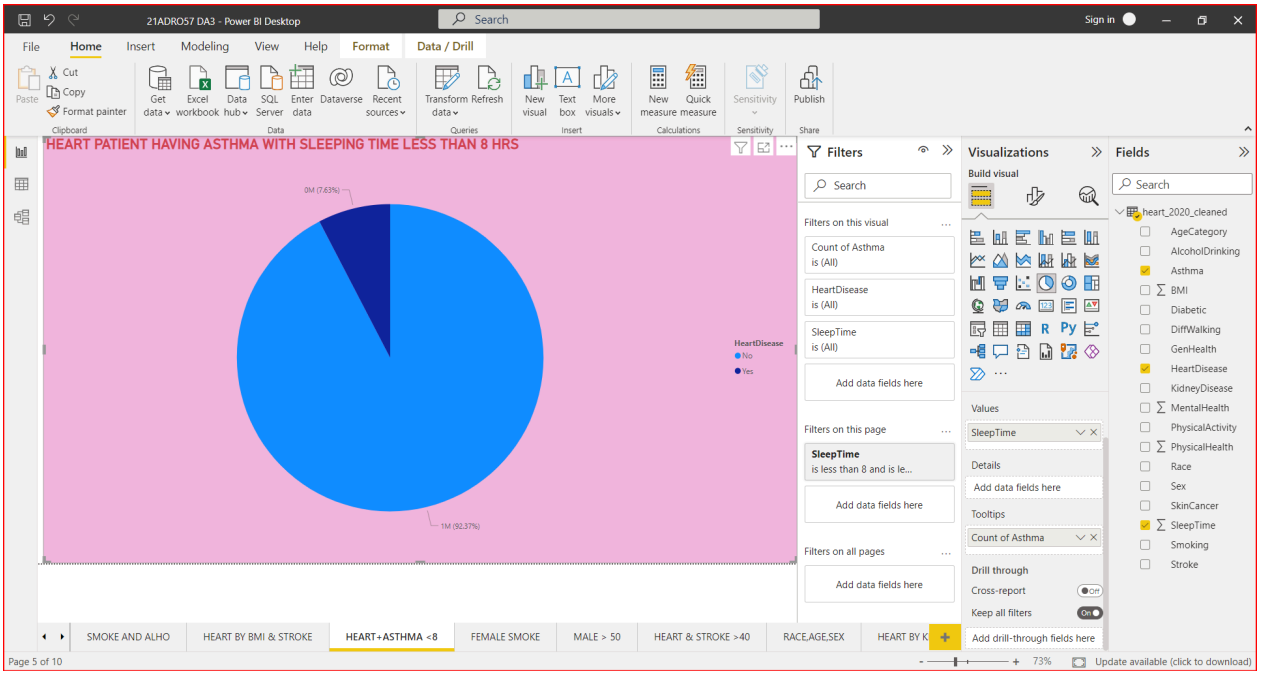
PROCEDURE:

STEP 1: In the model view select a pie chart then from the fields drag and drop heart disease to Legends.

STEP 2: Add sleep time to Values.

STEP 3: After it, add count of asthma to tooltips. Then under filter drag sleep time and filter it less than 8 hours.

Output:



INFERENCE:

HEART PATIENT HAVING SLEEPING TIME LESS THAN 8 HOUTS = 7.63%.

7.What is the impact of the Smoking for the female those who are having Physical Activity with good General health?

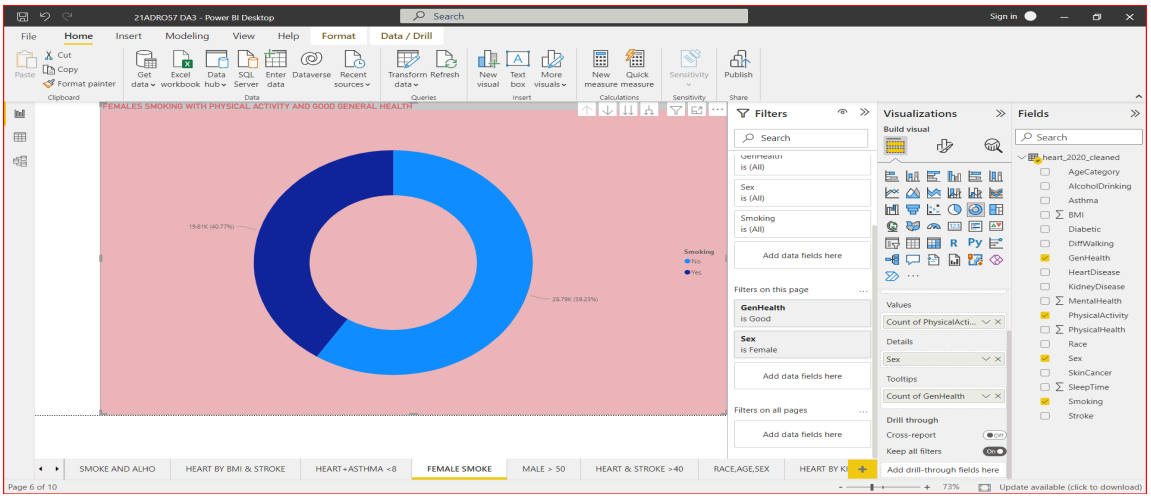
PROCEDURE:

STEP 1: In the model view select a donut chart then from the fields drag and drop heart disease and general health to Legends.

STEP 2: Add count of physical activities to Values, add Gen to details and count of general health to tooltips.

STEP 3: After it, a filter Genhealth to GOOD and sex to FEMALE.

Output:



INFERENCE:

Impact of smoking on female with good physical and general health is 40.77%.

7. Do you think that more than 50-year Male having Diff Walking with Alcohol Drinking leads to Heart Disease?

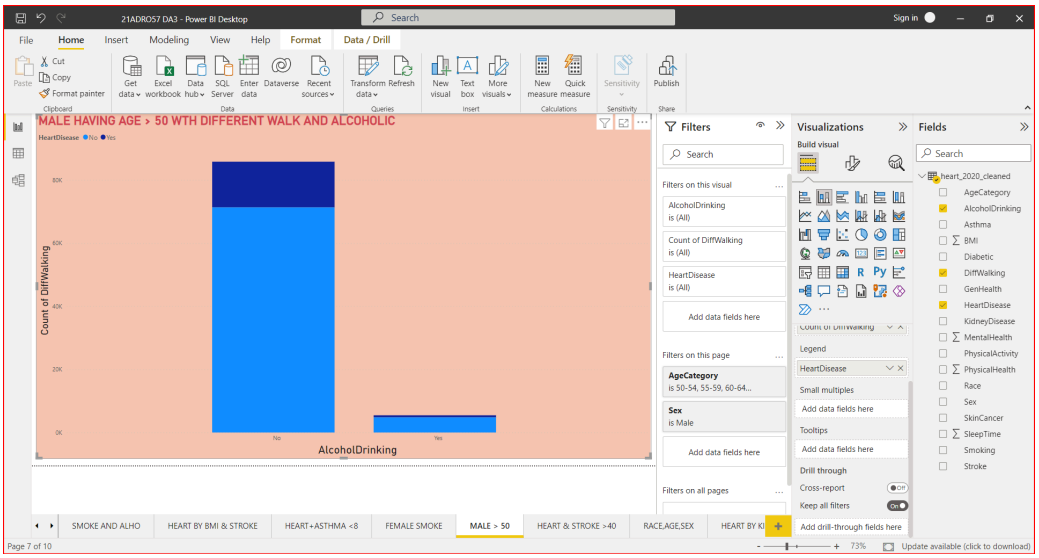
PROCEDURE:

STEP 1: In the model view select a stacked column chart then from the fields drag and drop Alcohol drinking to X axis and then add count of Diffwalking to Y axis.

STEP 2: Add heart disease to legend.

STEP 3: After it, a filter Age category greater than 50 and sex to MALE.

Output:



INFERENCE:

Male having age > 50 with alcohol and Diffwalking is 617.

8.Compare the heart disease and Stroke by sex and age group of less than 40 and more than 60?

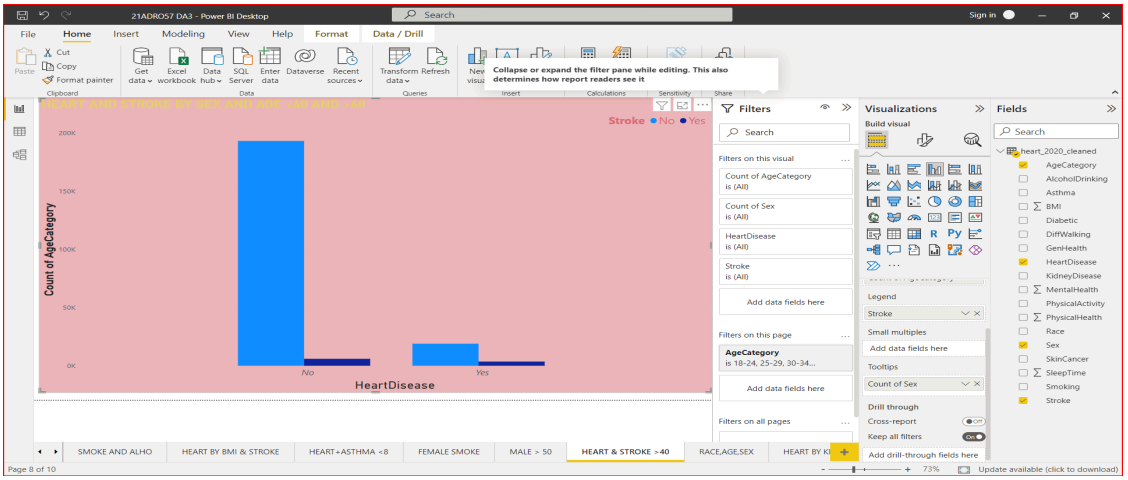
PROCEDURE:

STEP 1: In the model view select a clustered column chart then from the fields drag and drop heart disease to X axis and then add count of age category to Y axis.

STEP 2: Add stroke to legend and count of sex to tooltip.

STEP 3: After it, a filter Age category greater than 60 and less than 40.

Output:



INFERENCE:

Heart disease and stroke by age category >60 and <40 is 3588.

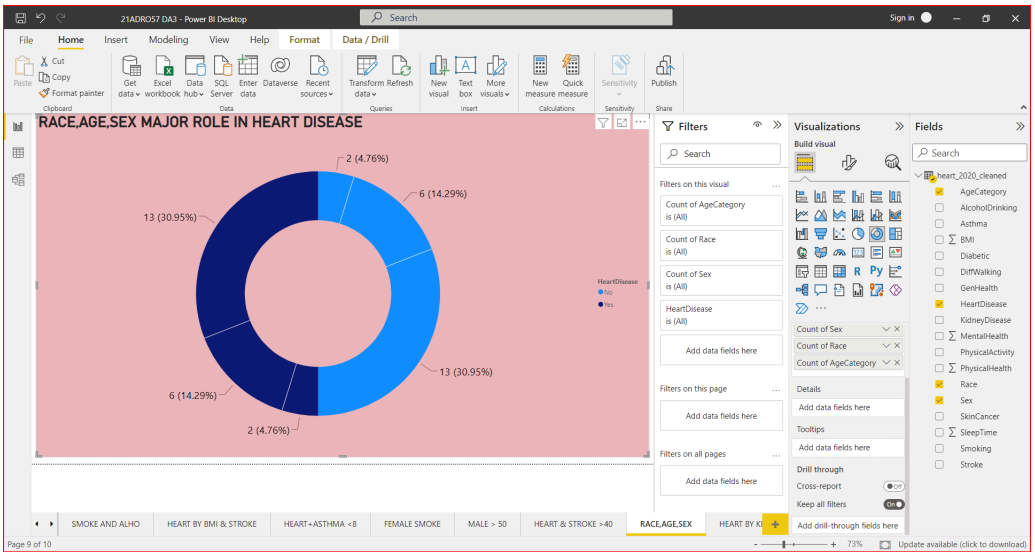
9. Do you think that Race, Age and Sex will play major role in heart disease?

PROCEDURE:

STEP 1: In the model view select a donut chart then from the fields drag and drop heart disease to legend.

STEP 2: Add count of age, count of sex and count of race to values.

OUTPUT:



INFERENCE:

Yes, all of the age, race and sex will plat major role in heart disease.

10. Is there any relationship between the parameter like kidney disease and Skin Cancer with Heart Disease?

PROCEDURE:

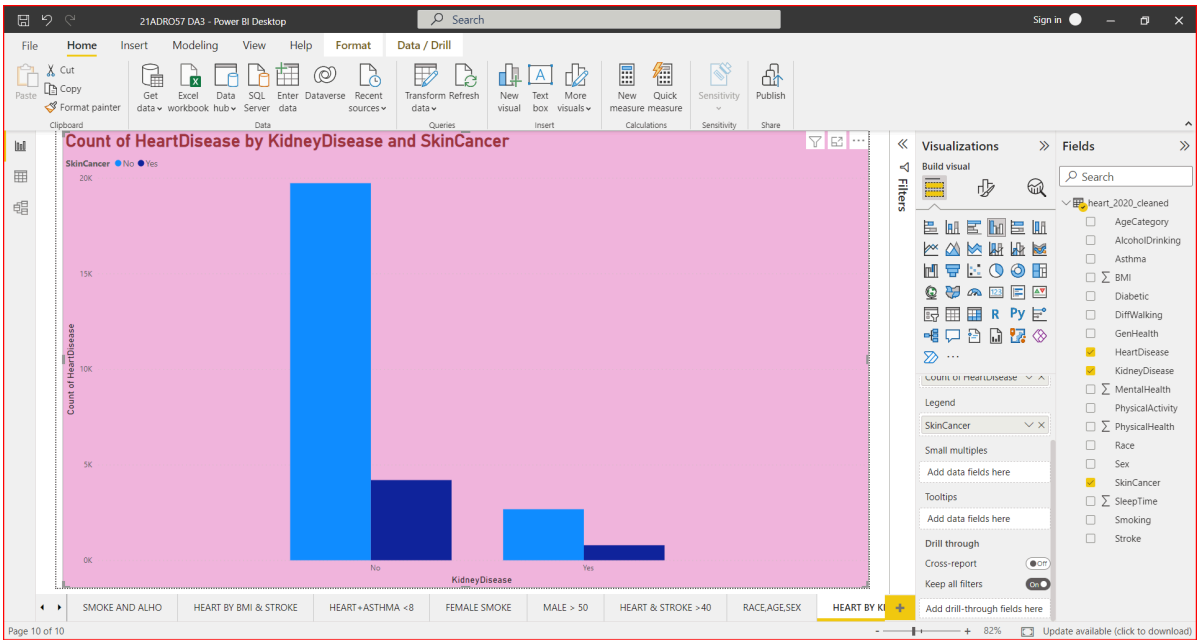
STEP 1: In the model view select a clustered column chart then from the fields drag and drop kidne

disease to X axis and then add count of heart disease to Y axis.

STEP 2: Add skin cancer to legend and count of sex to tooltip.

STEP 3: After it, a filter it by heart disease YES.

Output:



INFERENCE:

kidney disease and Skin Cancer with Heart Disease is 786.

RESULT:

Hence the Heart disease data set is analysed using DAX measures and visualised using POWER BI successfully.

Marks given		**Marks obtained**
COE	**25**	
RECORD	**15**	
VIVA	**10**	
TOTAL	**50**	