HEART ATTACK PREDICTION CASE STUDY

A Research Project By Priyanka

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CASE STUDY

It consists of 1 dataset which further consists

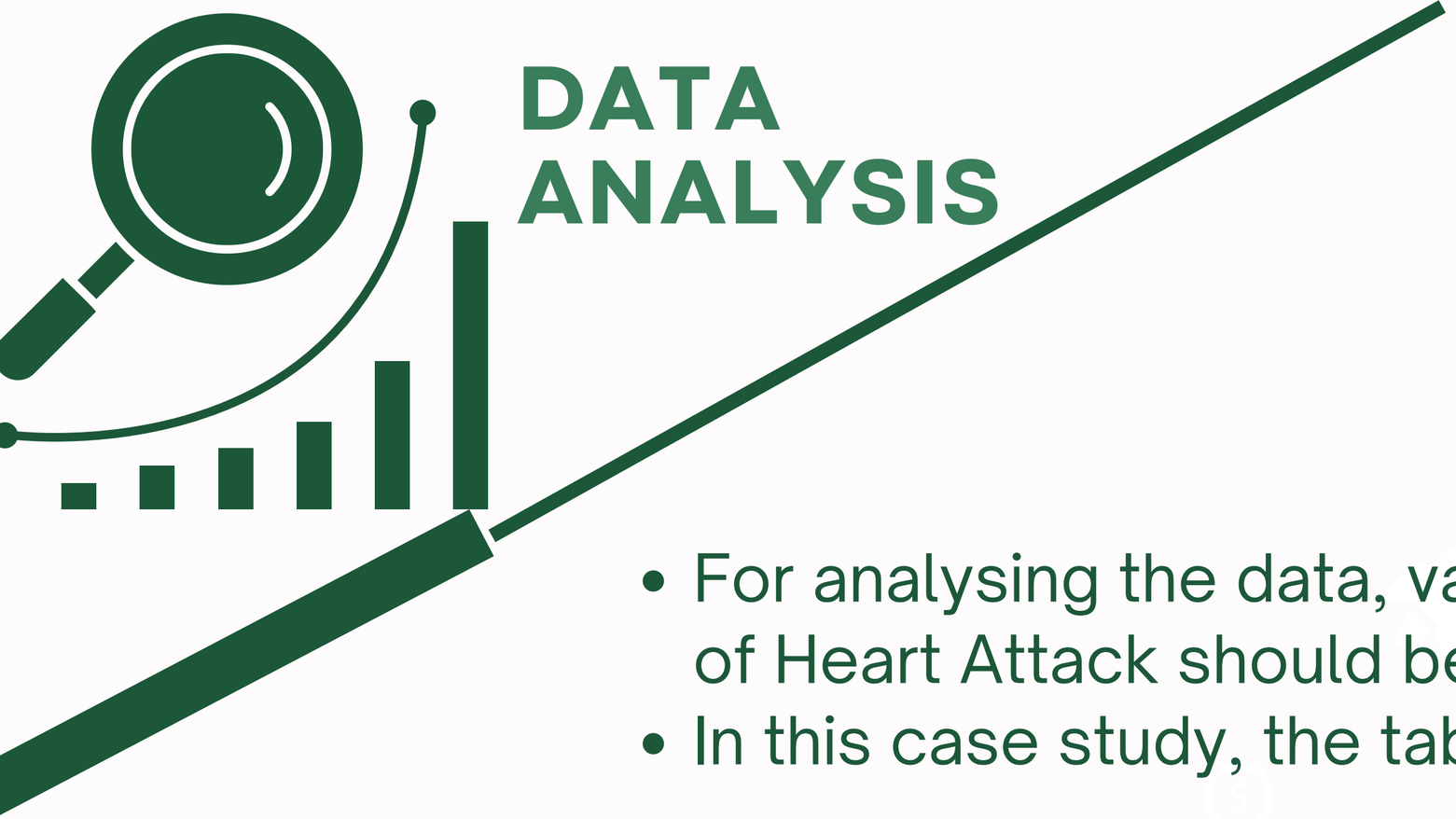
- Patient ID
- Age
- Sex
- Cholesterol
- Blood Pressure
- Heart Rate
- Diabetes
- Family History
- Smoking
- Obesity
- Alcohol Consumption
- Exercise Hrs Per Week
- Diet
- Previous Heart Problems
- Medication Use
- Stress Level
- Sedentary Hrs Per Day
- Income
- BMI
- Triglycerides
- Physical Activity Days Per Week
- Sleep Hrs Per Day
- Country
- Continents
- Hemisphere
- Heart Attack Risk

FINDINGS

- *Percentage of individuals who are at risk of Heart Attack*
- *Gender wise risk*
- *Continent wise count of Heart Attack Risk*
- *Major Risk Factors for a Heart Attack*
- *How Healthy Habits fails to work if one is prone to anyone of the Major Risk Factors*

OBJECTIVES

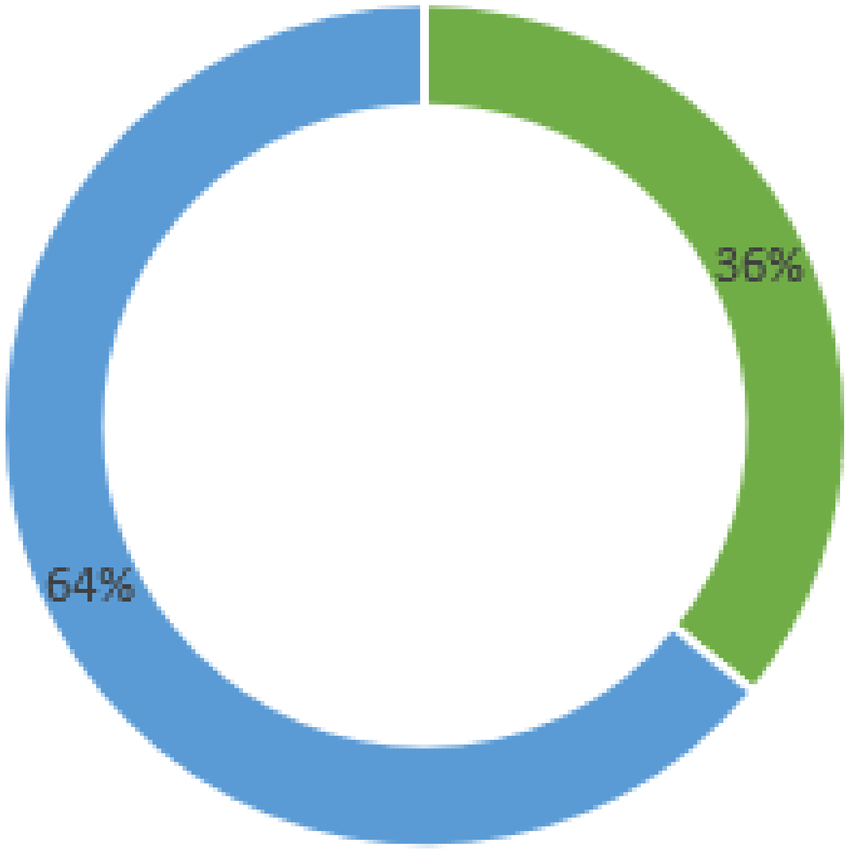
- Analyse the risk of Heart Attack in each individuals
- Publish the findings based on Data Analysis



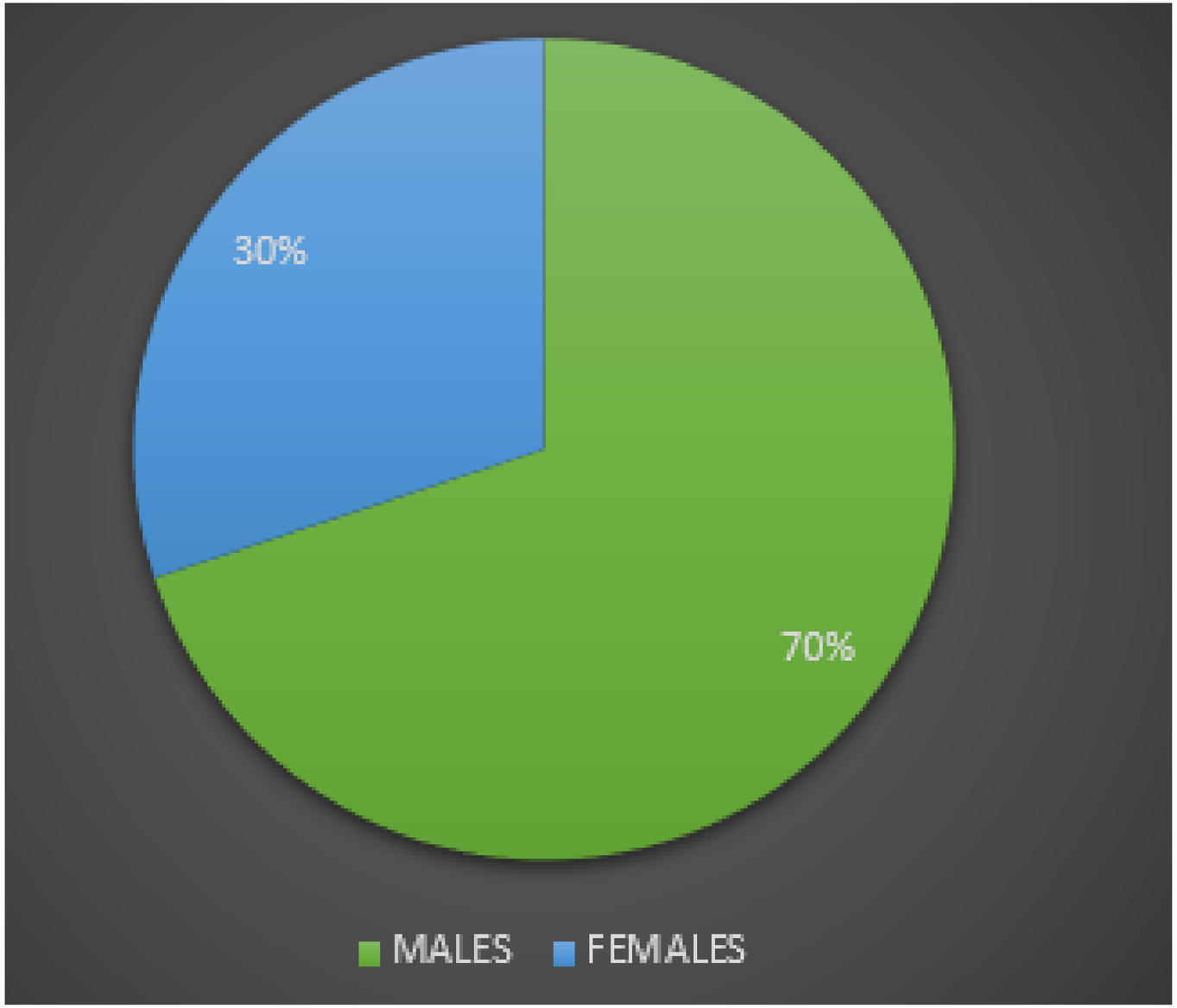
DATA ANALYSIS

- For analysing the data, various factors affecting the risk of Heart Attack should be listed out
- In this case study, the table consists of 26 columns.

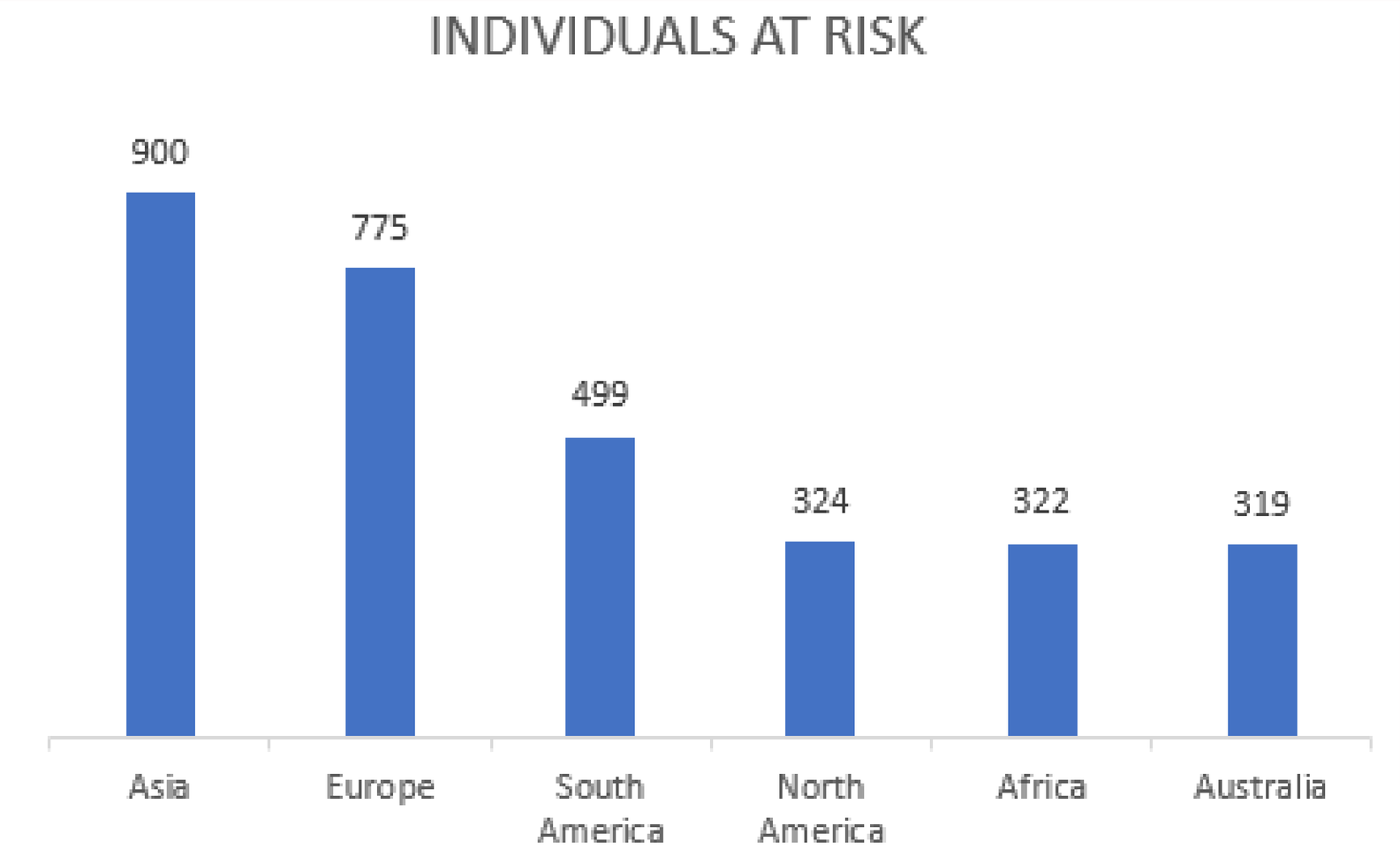
PERCENTAGE OF INDIVIDUALS AT RISK OF HEART ATTACK



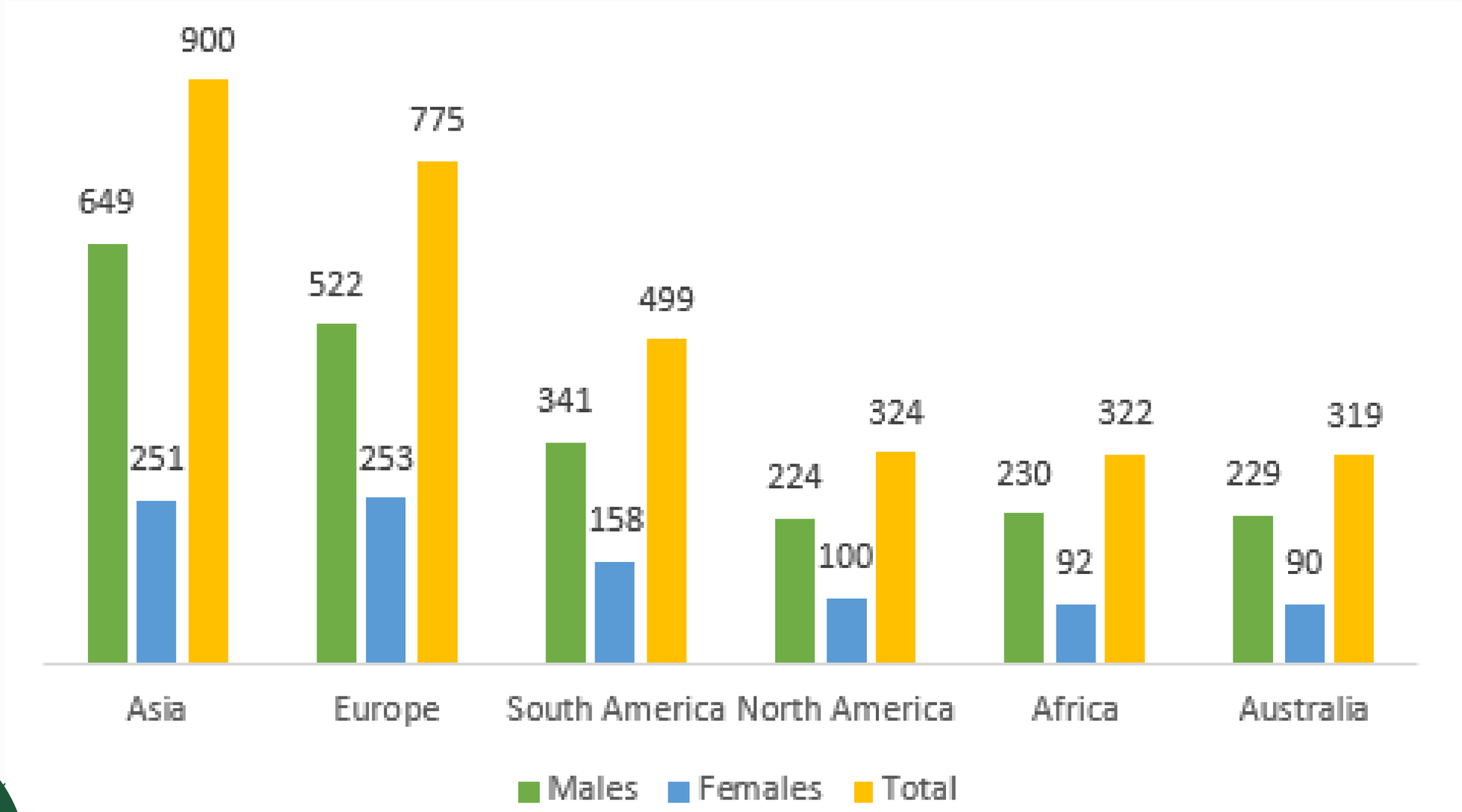
PERCENTAGE OF MALES AND FEMALES WHO ARE AT RISK OF HEART ATTACK



CONTINENT WISE COUNT OF HEART ATTACK RISK



CONTINENT WISE COUNT OF MALES AND FEMALES AT RISK



DEALING WITH ASIA

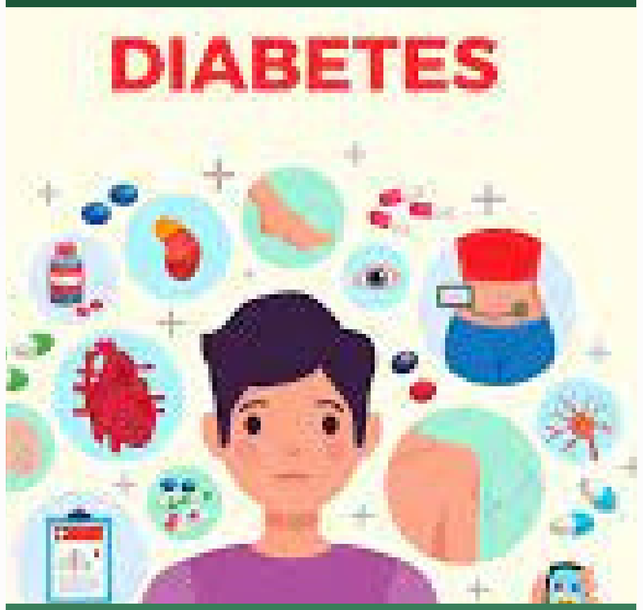
Sales

3 MAJOR RISK FACTORS

#1

SMOKING

#2

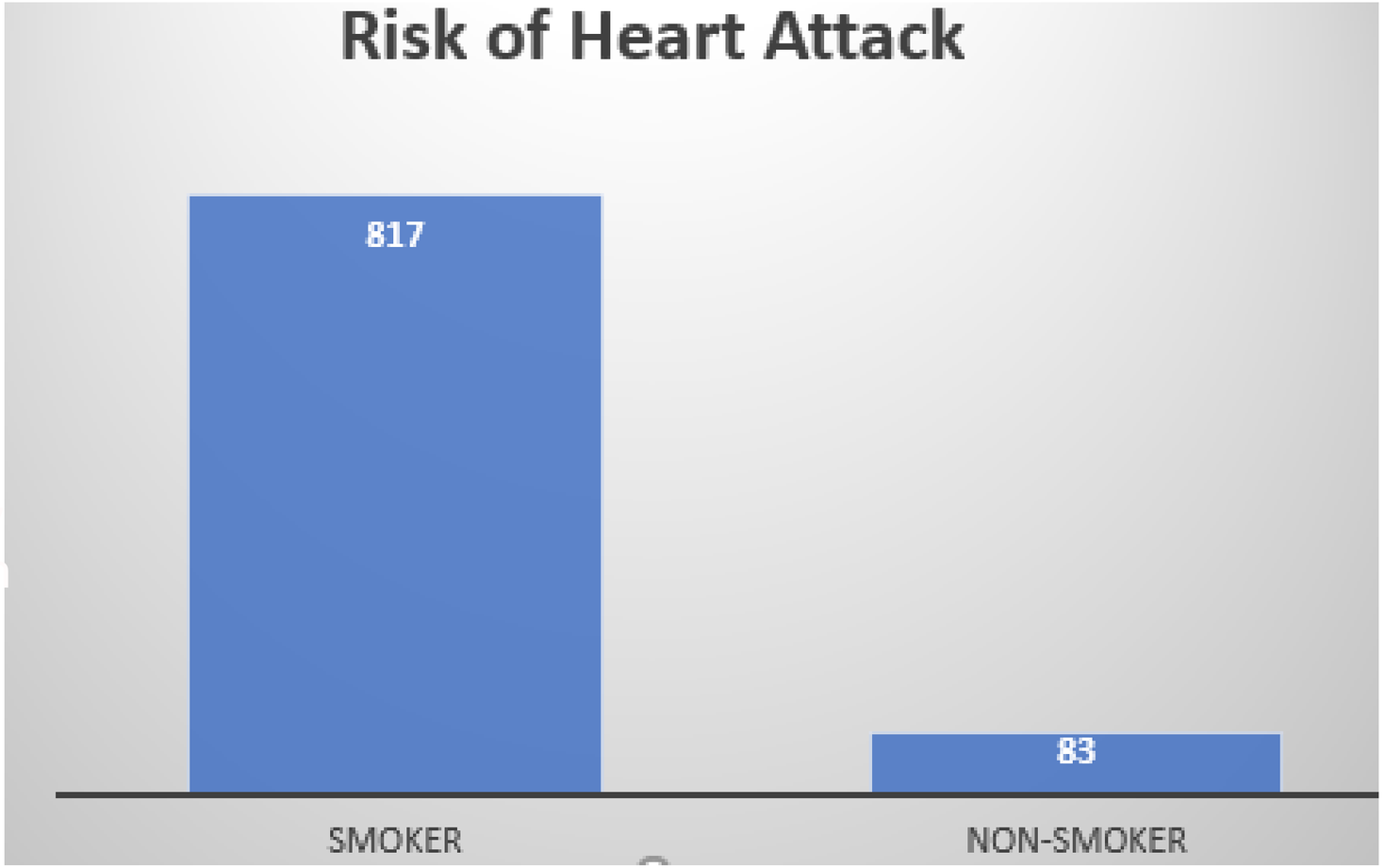


DIABETES

#3

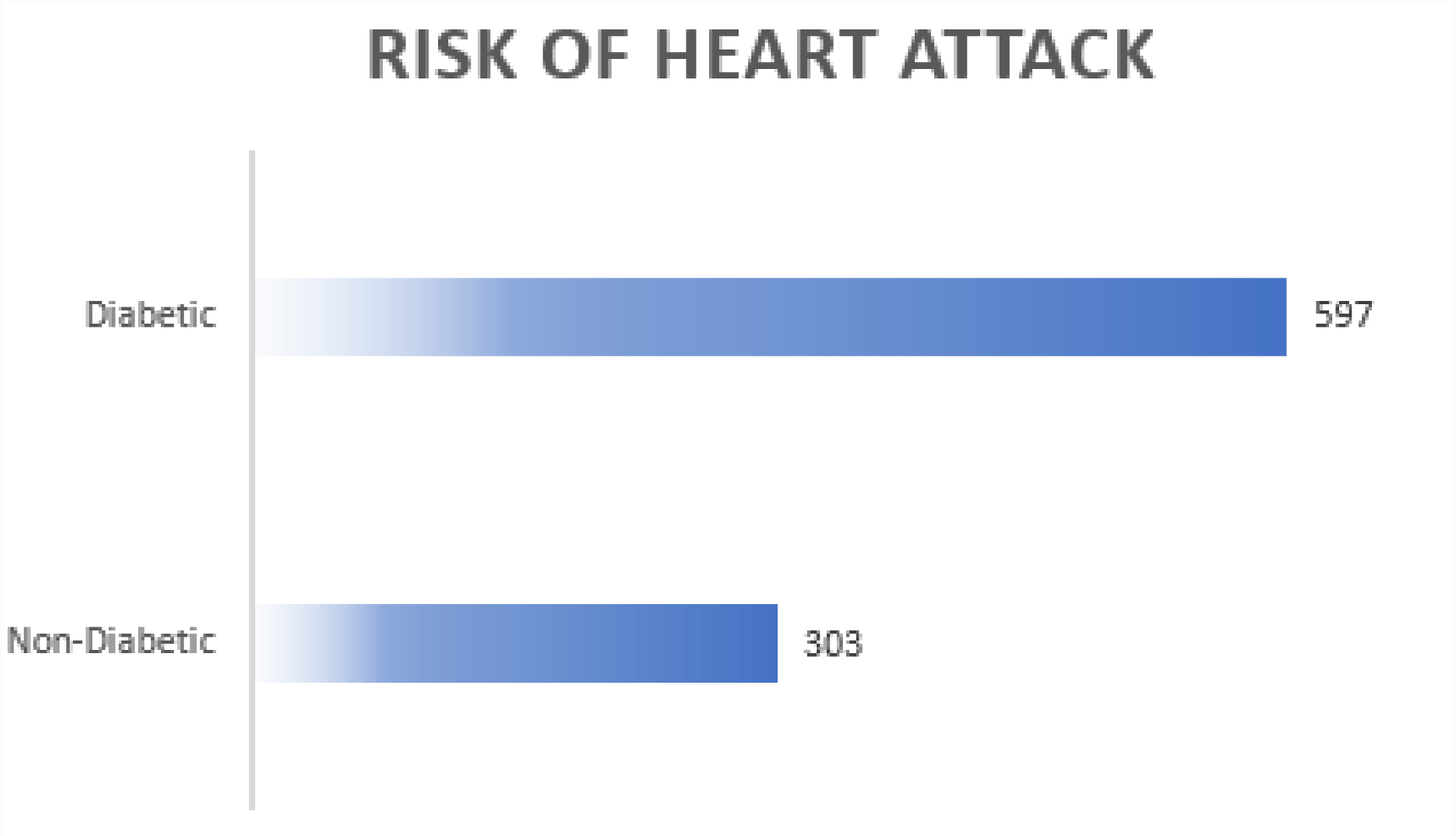
ALCOHOL CONSUMPTION

RISK OF HEART ATTACK - SMOKERS VS. NON-SMOKERS

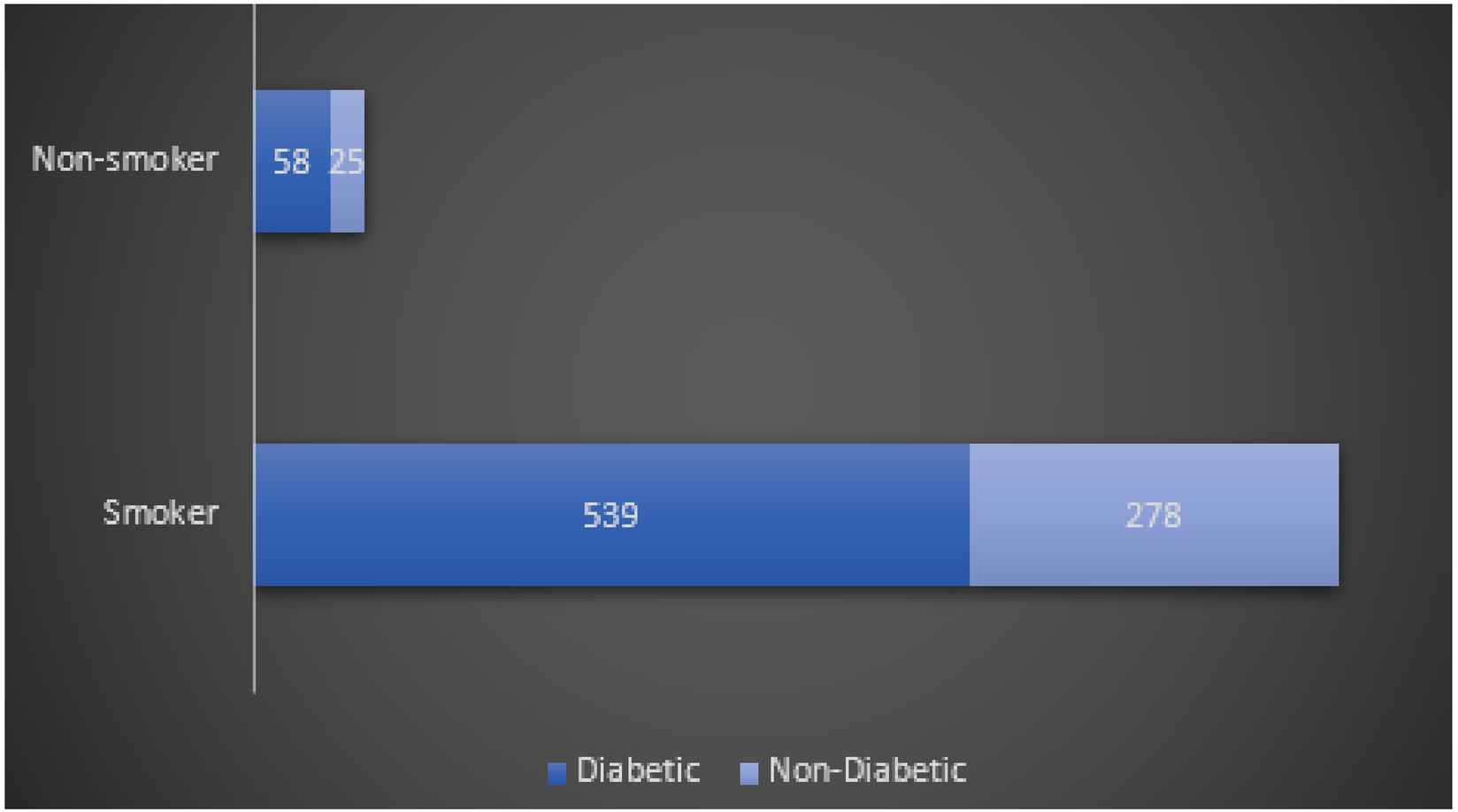


The one who smokes are more likely to have a heart attack

RISK OF HEART ATTACK - DIABETIC PERSON VS. NON-DIABETIC PERSON



ANALYSING RECORDS OF SMOKERS,NON-SMOKERS WITH DIABETIC AND NON-DIABETIC PATIENTS



The one who smokes and has Diabetes are more prone to Heart Attack

CORRELATION OF ALCOHOL CONSUMPTION, SMOKING AND DIABETES

- The one who consumps alcohol, smokes and has diabetes are in high risk of heart attack and the count is 317.
- The one who consumps alcohol, smokes but non-diabetic are also in risk and the count is 170.
- The one who consumps alcohol, diabetic but doesn’t smokes are also in risk but the count is less i.e., 32.
- The one who consumps alcohol, non-diabetic and doesn’t smokes are also in risk but the count is less i.e., 12.
- Hence, besides consuming alcohol, one who smokes and has diabetes are found to be at high risk of heart attack and the count is maximum in this case.

CORRELATION OF PREVIOUS HEART PROBLEMS, ALCOHOL CONSUMPTION, SMOKING AND DIABETES

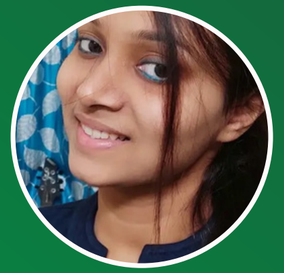
- The one who has a record of previous heart problems, consumps alcohol, smokes and has diabetes are at high risk of heart attack.
- The one who has a record of previous heart problems, consumps alcohol, smokes but non-diabetic are also in risk.
- Similarly, The one who doesn’t have a record of previous heart problems, consumps alcohol, smokes and has diabetes are at high risk of heart attack.
- Hence, we can conclude that the one who has been affected with 3 major risk factors are at high risk of heart attack and whether he suffers from previous heart problems or not doesn’t matter at all.

HOW HEALTHY HABIT FAILS TO WORK

It is found that

- One whose diet is healthy but consumps alcohol, smokes and is diabetic are in high risk of heart attack although the diet is healthy.
- One whose diet is healthy and is prone to anyone of the major risk factors (i.e., Smoking, Diabetes and Alcohol Consumption) are also at risk of heart attack.
- Similarly one whose diet is unhealthy and is prone to anyone of the major risk factors (i.e., Smoking, Diabetes and Alcohol Consumption) are also at risk of heart attack.
- Hence,Healthy Habits fails to work if one is prone to anyone of the Major Risk Factors

RESEARCHER



Priyanka

Data Analyst

- Downloaded the dataset from Kaggle
- Research work is solely done by me.
- Technology used: SQL, Excel
- Presentation: Canva

THANK YOU