



Intelligent Heart Risk Prediction

Group 7

Team



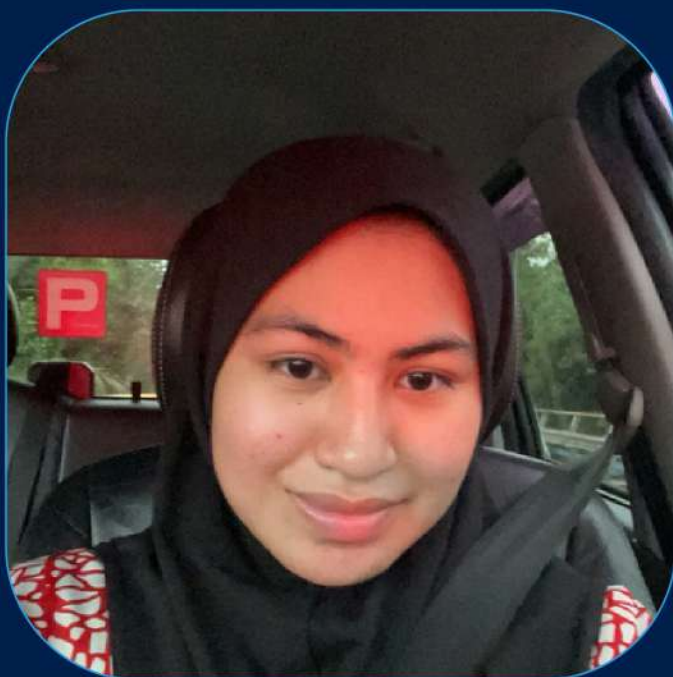
Ain Maisara
2217856



Azliyana
2210620



Alya
2218084



Sofea
2115386



Adlin
2111324



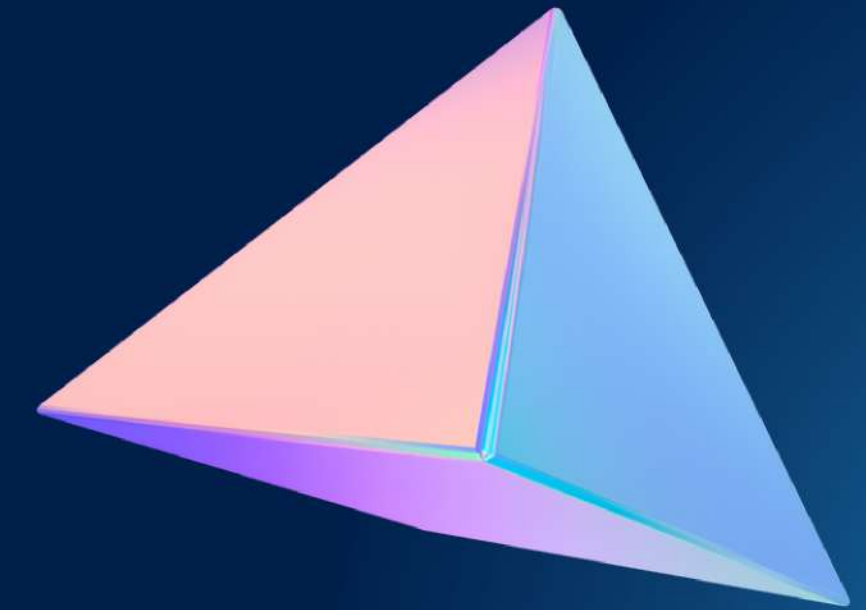
Methodology

We use mainly Neural Network for our project



Aspect Measures



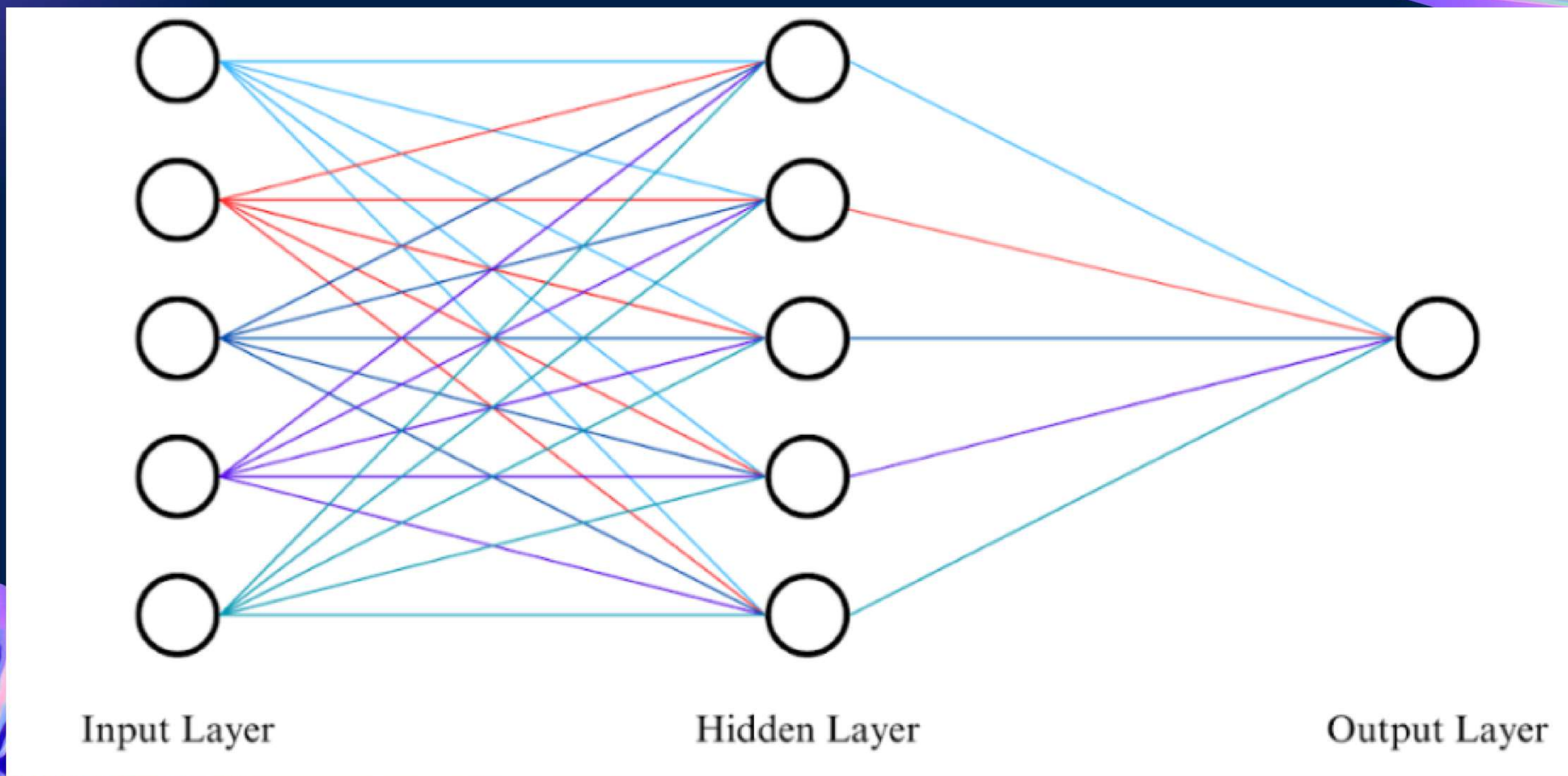


WHAT DO WE DO?

We simulate a heart risk prediction using Google Colab.

Users are required to initiate input prompts, providing data such as age, sex, heart rate, diabetes, and cholesterol. This input is then utilized by the neural network to predict heart rate values based on its learned patterns and training.





DATA

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|-----|------------|-----|--------|-------------|----------------|------------|----------|----------------|---------|---------|---------------------|-----------------|-----------|
| 1 | Patient ID | Age | Sex | Cholesterol | Blood Pressure | Heart Rate | Diabetes | Family History | Smoking | Obesity | Alcohol Consumption | Exercise Habits | Diet |
| 344 | YBI6619 | 42 | Female | 218 | 143/83 | 79 | 1 | 0 | 1 | 1 | 1 | 4.350541 | Average |
| 345 | MSW1926 | 18 | Male | 304 | 165/78 | 95 | 1 | 1 | 1 | 0 | 1 | 12.70827 | Average |
| 346 | VHL1612 | 62 | Female | 173 | 163/63 | 64 | 1 | 0 | 1 | 1 | 1 | 11.04507 | Average |
| 347 | FKI0908 | 77 | Female | 286 | 124/88 | 64 | 1 | 0 | 1 | 0 | 1 | 1.212993 | Unhealthy |
| 348 | XUO9577 | 69 | Female | 359 | 99/82 | 110 | 1 | 0 | 1 | 0 | 1 | 15.84754 | Average |
| 349 | TEE0405 | 78 | Male | 273 | 166/86 | 67 | 1 | 0 | 1 | 1 | 1 | 19.90385 | Average |
| 350 | IDQ6872 | 82 | Female | 123 | 165/78 | 84 | 1 | 0 | 1 | 0 | 0 | 15.75596 | Unhealthy |
| 351 | XBZ9674 | 36 | Male | 124 | 145/65 | 43 | 1 | 1 | 1 | 0 | 1 | 4.097386 | Average |
| 352 | OIV0569 | 29 | Male | 139 | 158/76 | 54 | 1 | 1 | 1 | 0 | 1 | 18.50338 | Unhealthy |
| 353 | MWZ5398 | 25 | Male | 244 | 132/76 | 103 | 1 | 0 | 1 | 1 | 1 | 8.101512 | Unhealthy |
| 354 | YRQ9870 | 84 | Female | 321 | 163/106 | 99 | 1 | 0 | 1 | 0 | 1 | 10.44167 | Unhealthy |
| 355 | VCY3069 | 80 | Female | 263 | 126/84 | 59 | 1 | 0 | 1 | 0 | 1 | 14.8033 | Average |
| 356 | QDJ7359 | 76 | Male | 291 | 107/83 | 66 | 1 | 0 | 1 | 0 | 1 | 0.500024 | Healthy |
| 357 | ZJI5100 | 66 | Female | 318 | 137/72 | 43 | 1 | 1 | 1 | 0 | 0 | 11.94422 | Unhealthy |

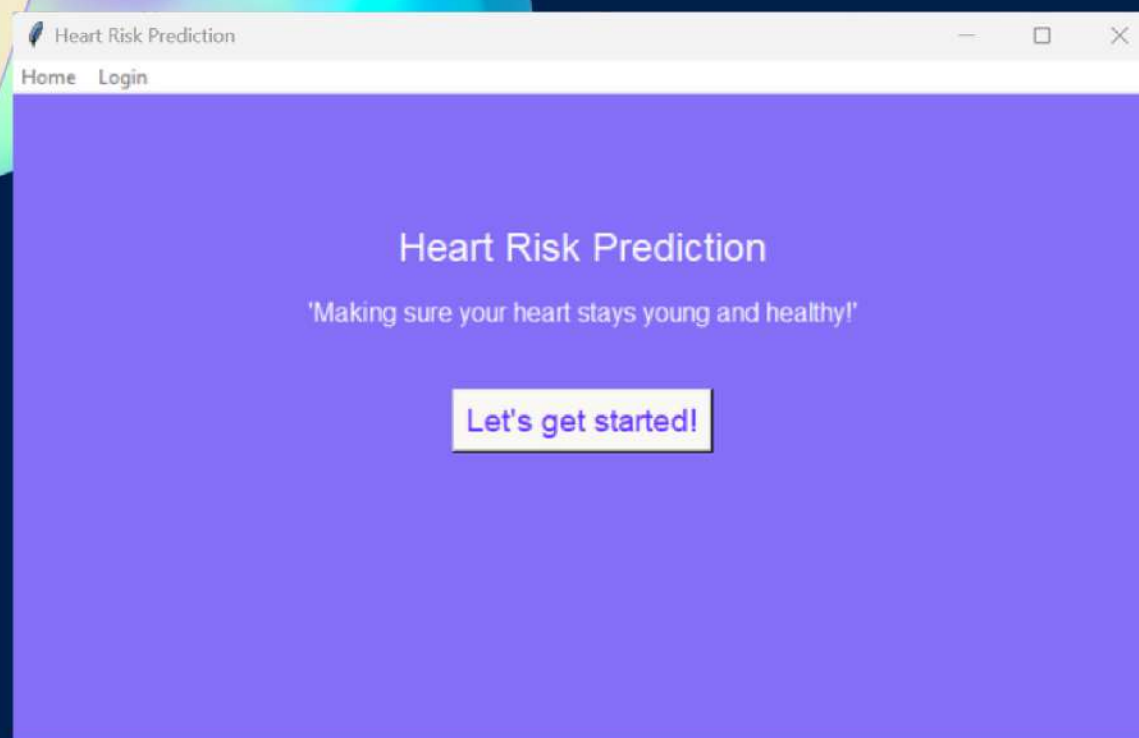
Input & Output

```
else:  
    print('LOW')
```

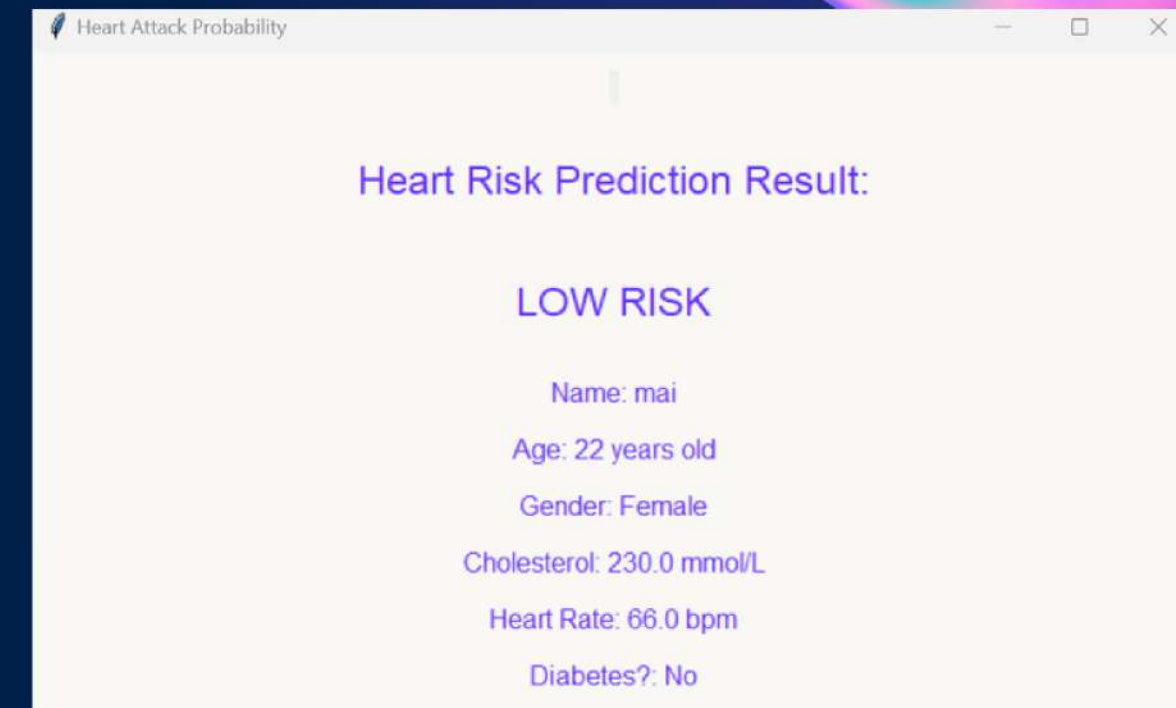
... HEART RISK PREDICTION
For this prediction please input numbers
REFERENCE
Male= 1 Female=0
Diabetes
No=0 Yes=1
Please input Age Sex Cholesterol Heart_Rate Diabetes in order separated by spaces:

```
➔ HEART RISK PREDICTION  
For this prediction please input numbers  
REFERENCE  
Male= 1 Female=0  
Diabetes  
No=0 Yes=1  
Please input Age Sex Cholesterol Heart_Rate Diabetes in order separated by spaces: 69 0 359 110 0  
Heart Risk Detection:  
HIGH
```


Graphical User Interface



A screenshot of the "Heart Risk Prediction" application window. The title bar says "Heart Risk Prediction". The main content area has a purple background and the text "Please fill out the following:". Below this are several input fields: "Name" (a text box), "Age(y/o)" (a text box with "0" entered), "Gender" (a dropdown menu with "Select" and a downward arrow), "Cholesterol (mmol/L)" (a text box with "0.0" entered), "Heart Rate (bpm)" (a text box with "0.0" entered), and "Diabetes?" (a dropdown menu with "Select" and a downward arrow). At the bottom are three buttons: "Get Result", "Clear", and "Exit".



Abstract geometric shapes in the corners. The top-left corner features a 3D structure with blue, purple, and pink faces. The bottom-right corner features a similar structure with purple, pink, and cyan faces. The background is a dark blue gradient.

**With good data and the right
technology, people and
institutions today can still
solve hard problems and change
the world for the better.**

To summarize

- Results on prediction are obtained but not fully accurate
- Helps consider heart risk as a precaution
- Take necessary preventive measures
- Carefully select the learning rate and network architecture to reduce error

Thank You

