

iScan

AI-powered medical imaging: Saving time, Saving lives

TEAM NAME AND MEMBERS DETAILS

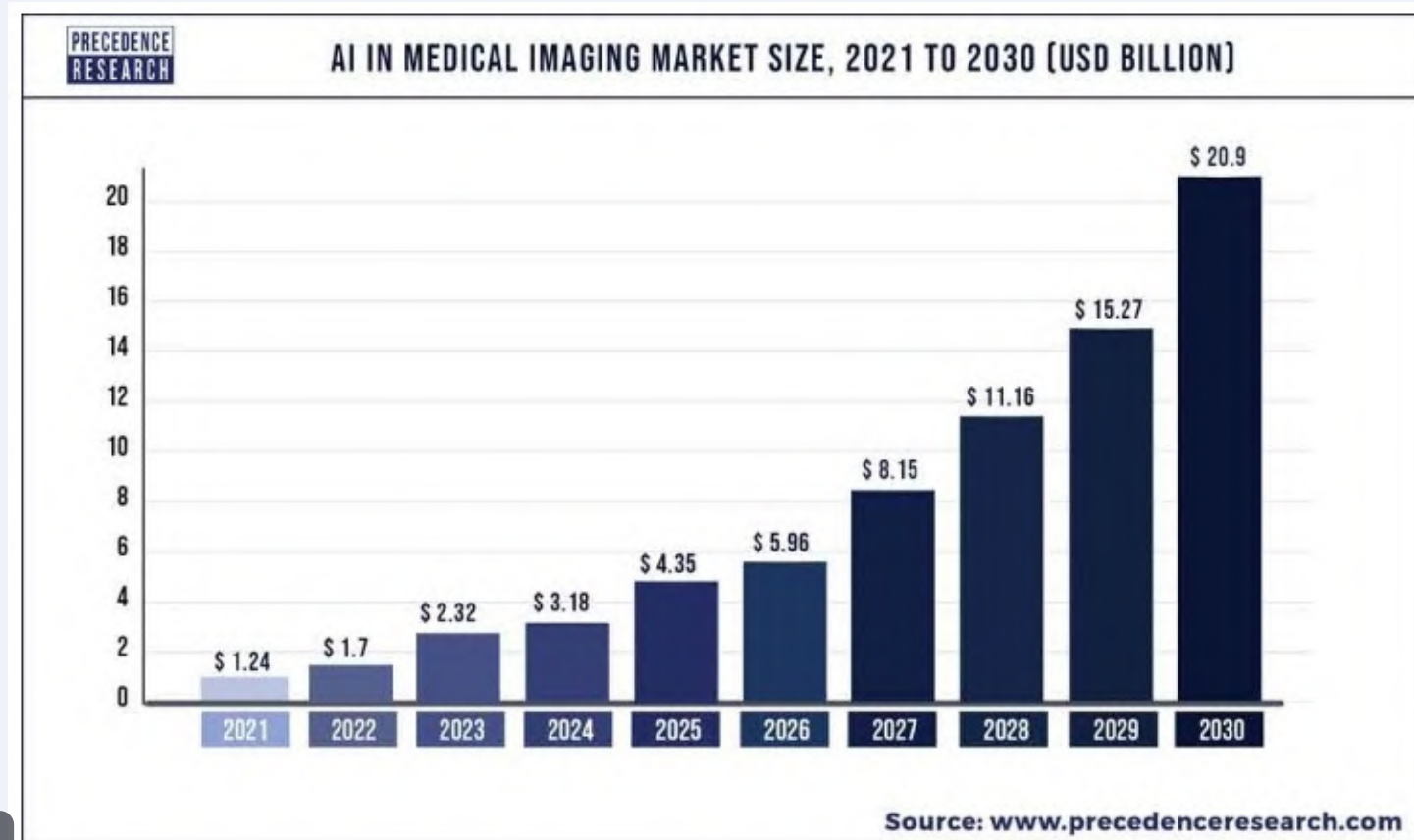
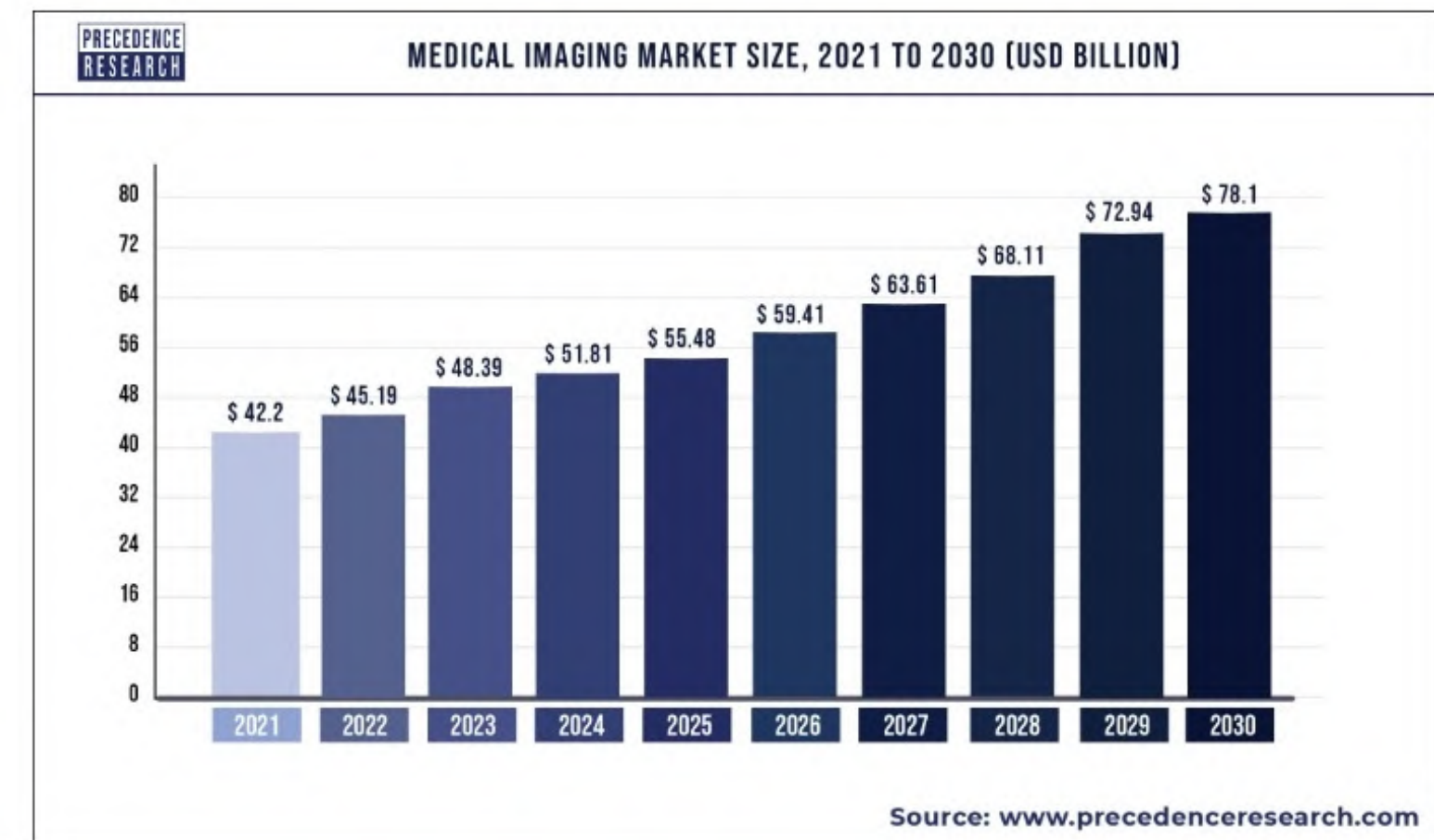
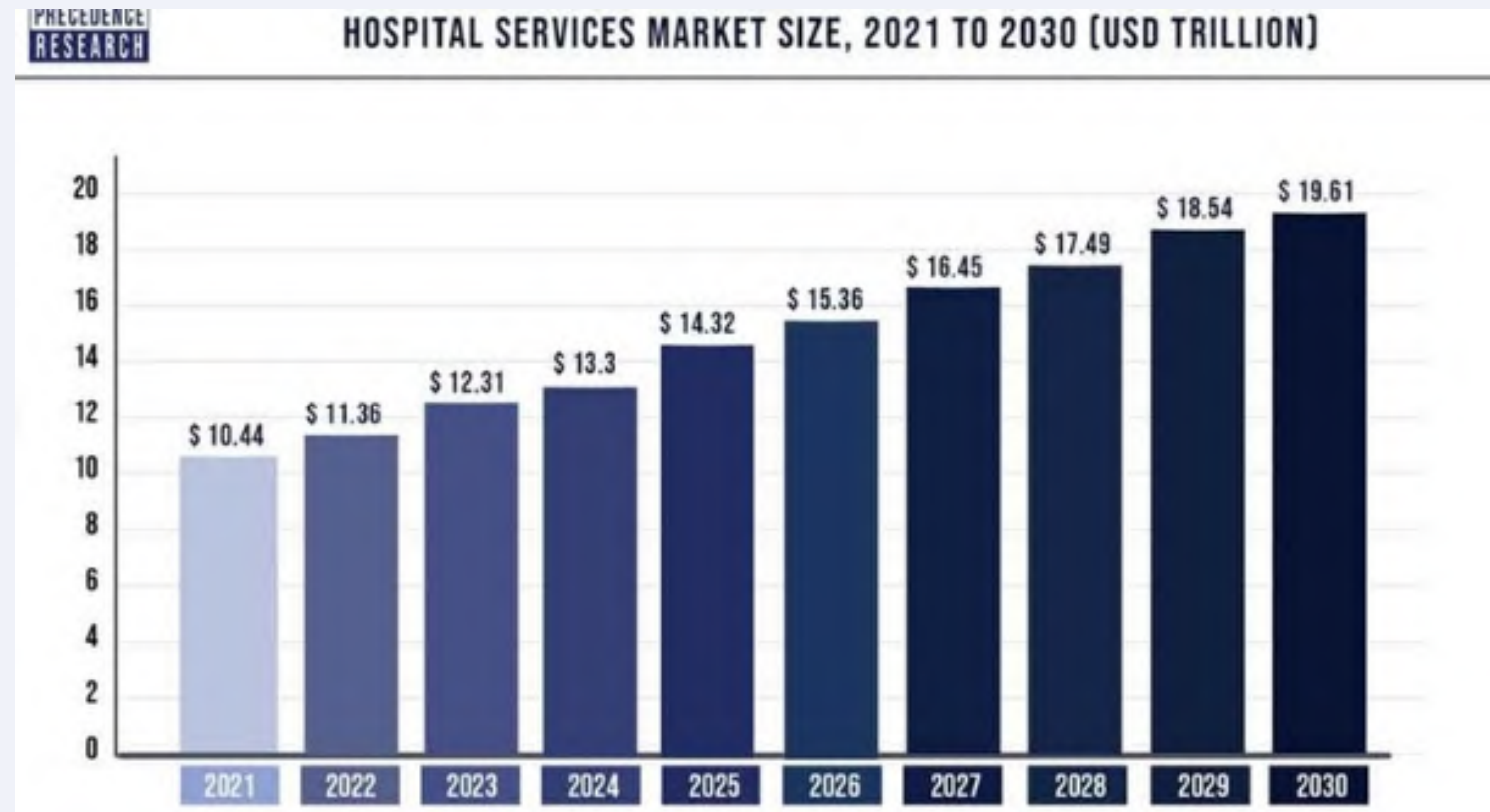
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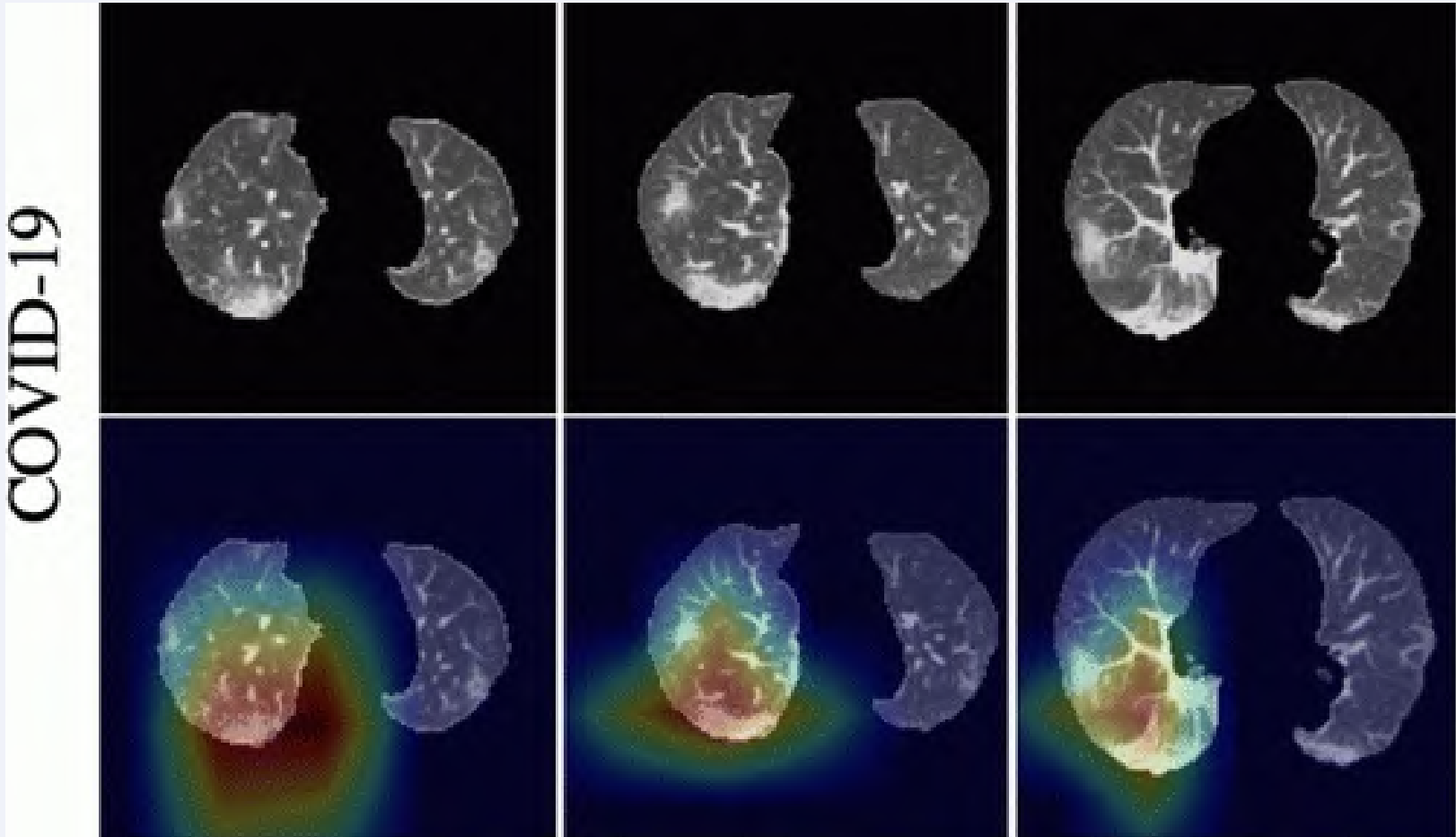
Problem Statement



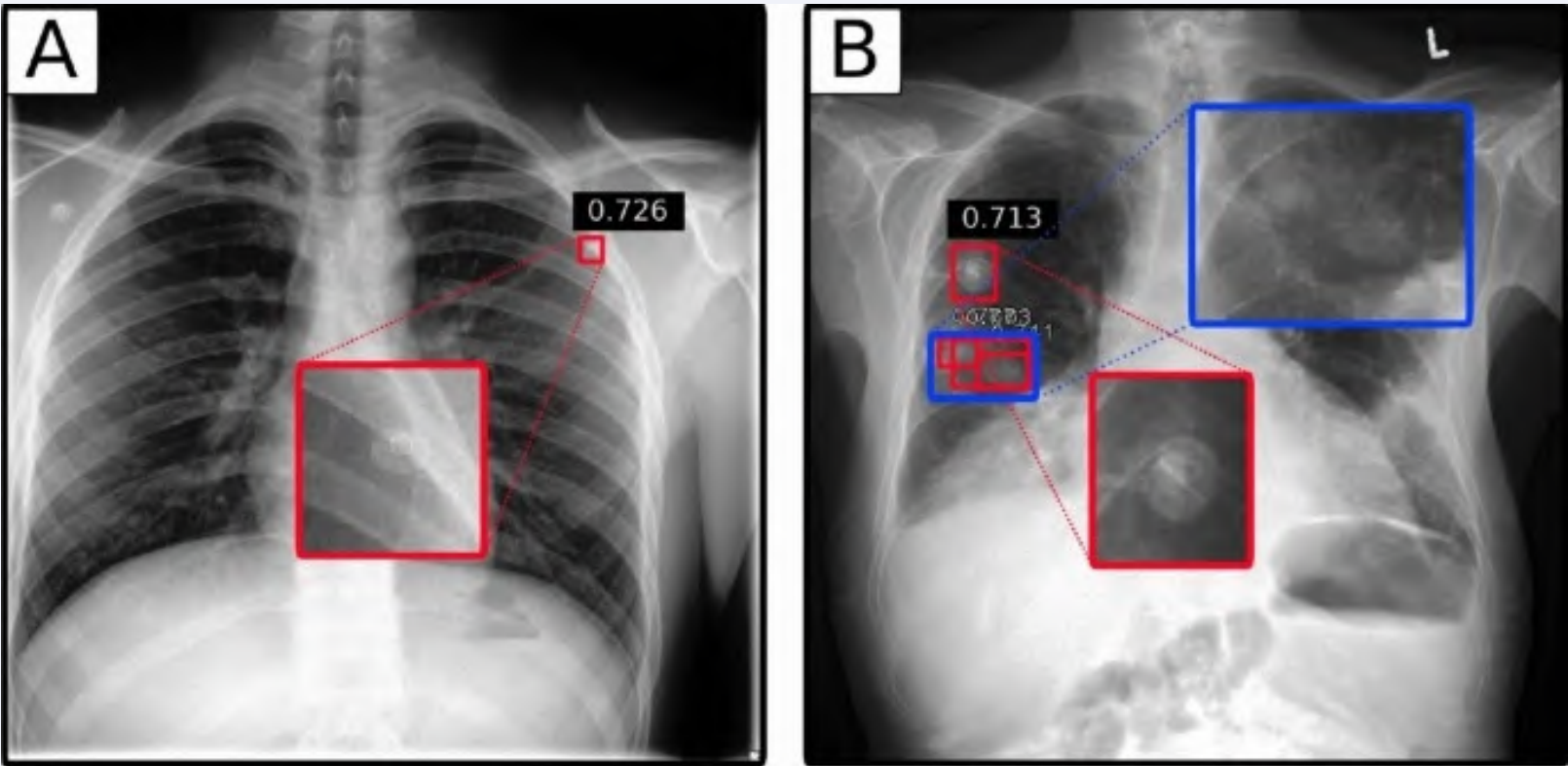
One doctor per 1,000 patients is the current scenario, but this is only true for a small number of nations. In many others, like India, the doctor-to-patient ratio is much worse and will remain this way if nothing is done to address the situation.

Proposed Solution and Use Case

AI in healthcare involves the use of machine learning algorithms to analyze and interpret large amounts of data from various sources such as electronic health records, medical imaging, and wearable devices. These algorithms can identify patterns, trends, and anomalies that can aid in the diagnosis, treatment, and disease prevention. The use of AI in health tech has the potential to improve patient outcomes, reduce costs, and increase efficiency in healthcare delivery.

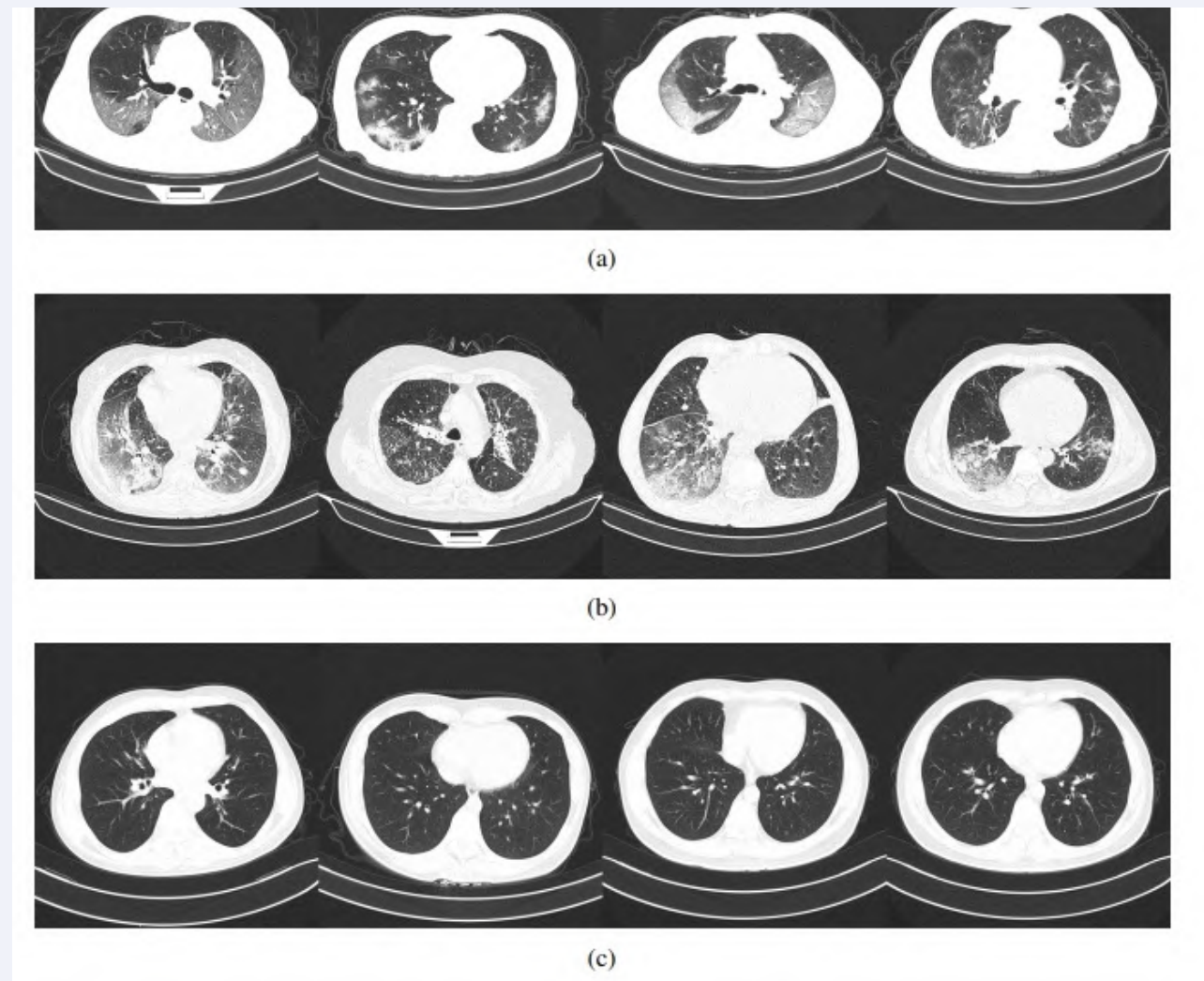


Model to Detected covid - 19



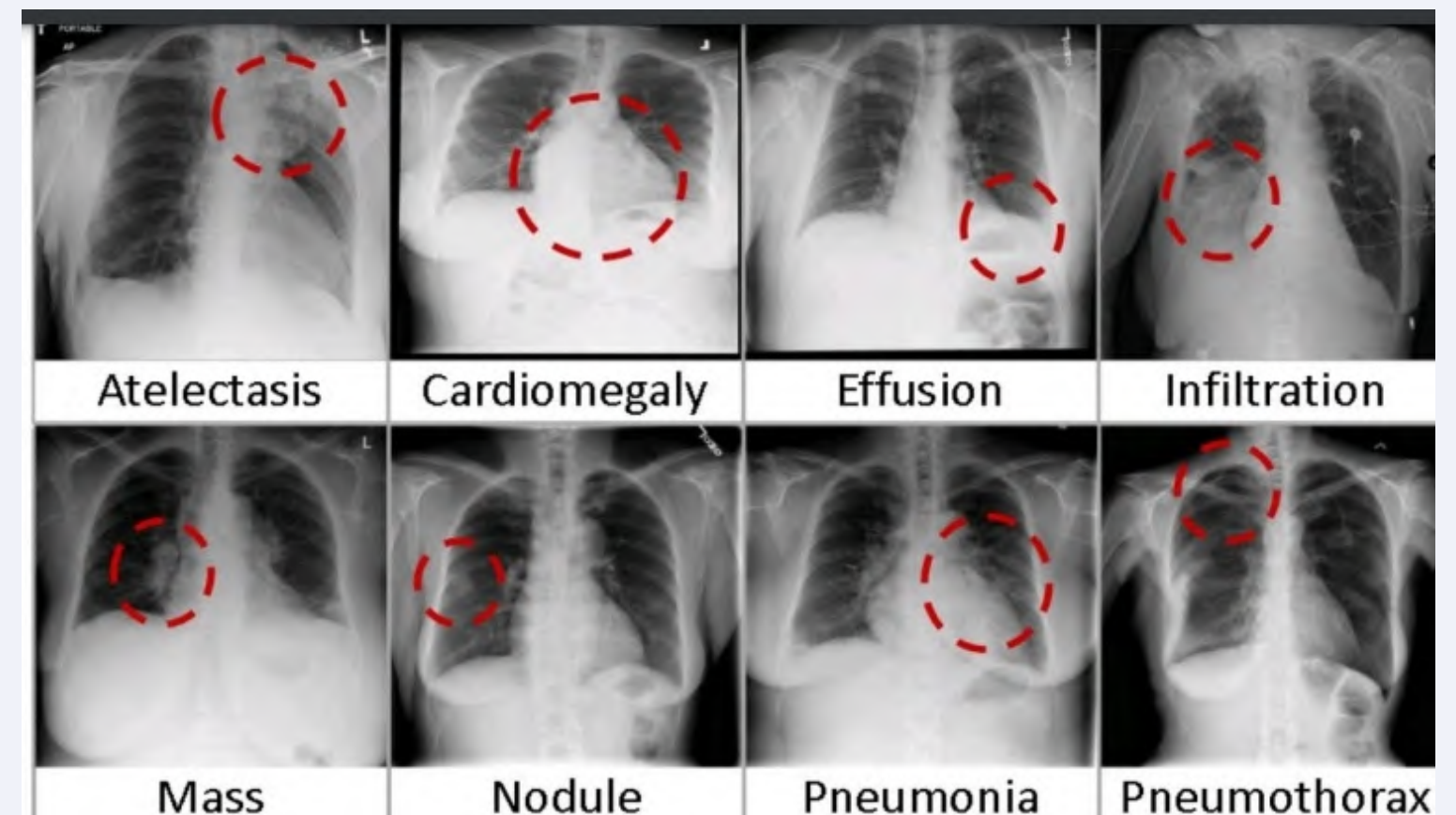
Model to lung nodule

Dataset

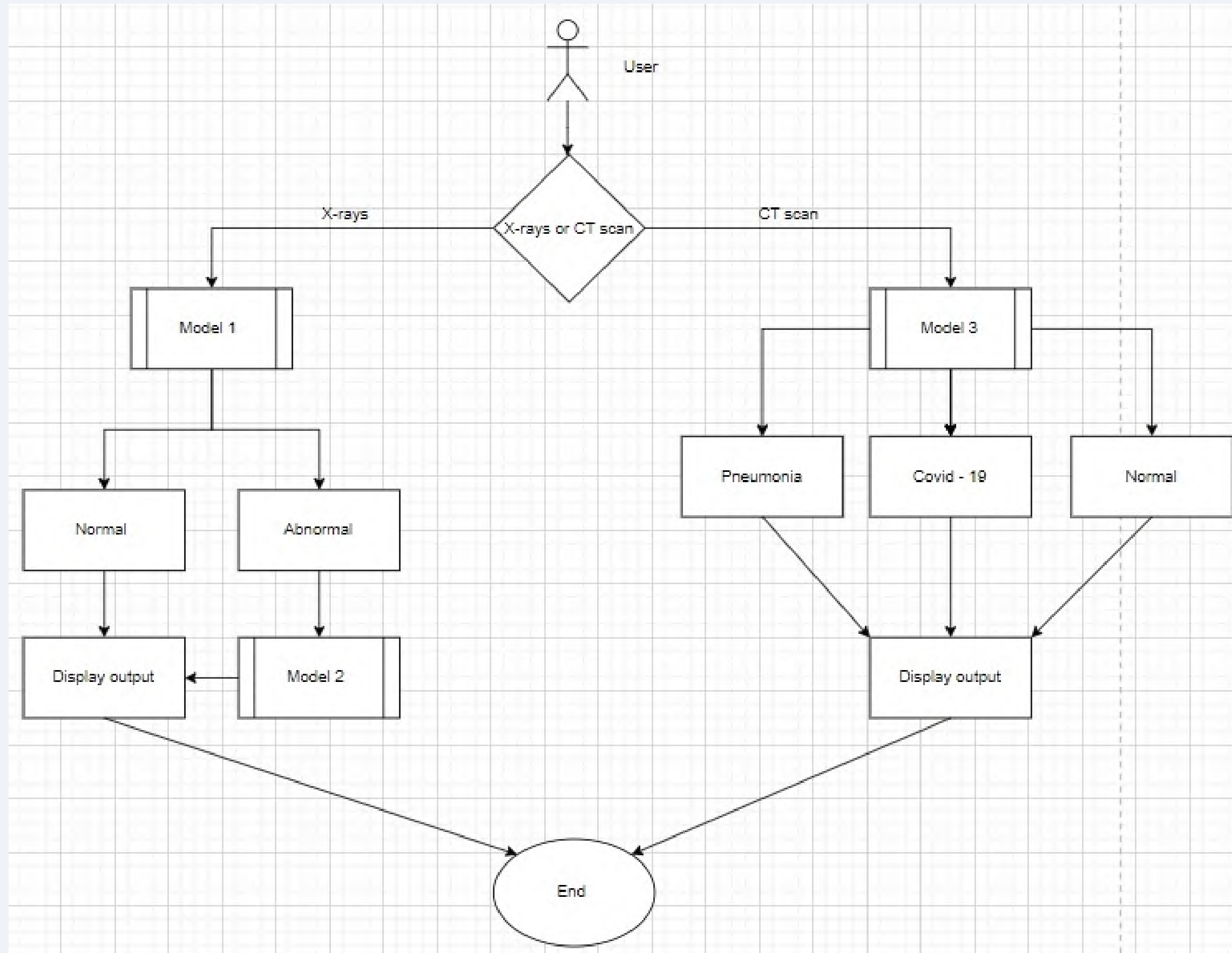


Example chest CT images from the COVIDx-CT dataset, illustrating (a) COVID-19 pneumonia cases, (b) non-COVID-19 pneumonia cases, and (c) normal control cases

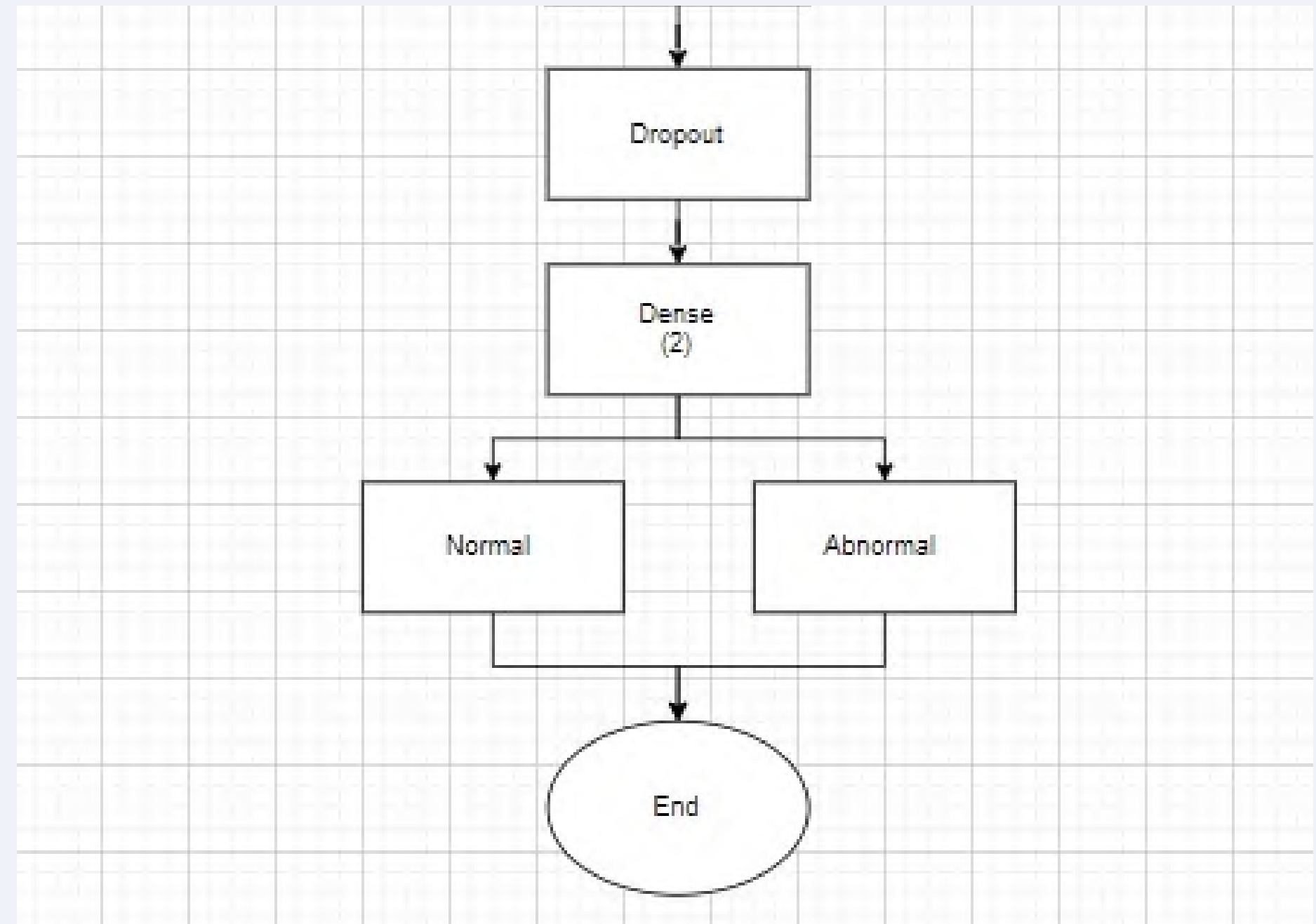
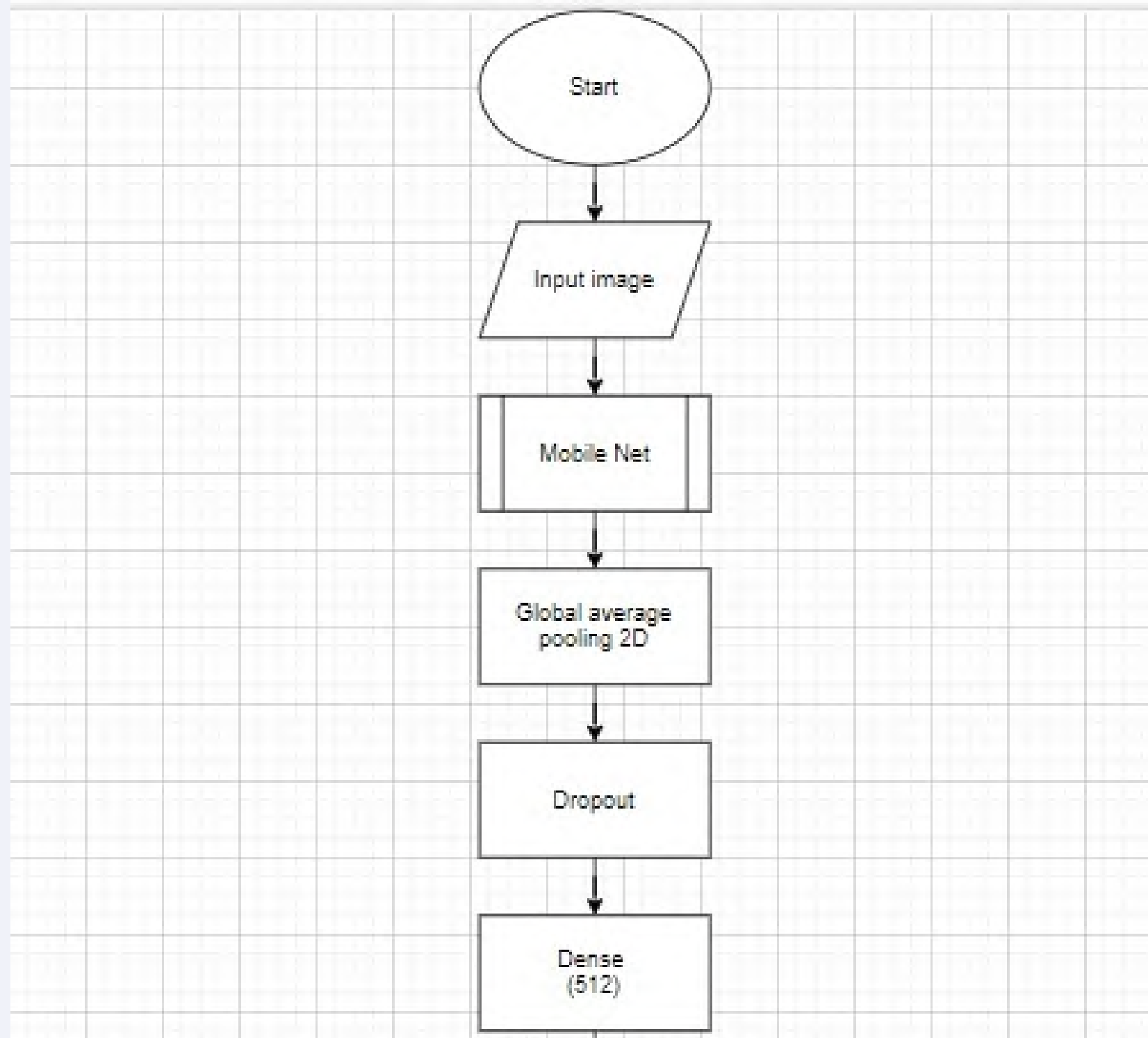
The National Institutes of Health Clinical Centre recently disclosed over 100,000 anonymized chest X-ray pictures, and they also assembled a collection of scans from over 30,000 patients, many of whom had severe lung illnesses.



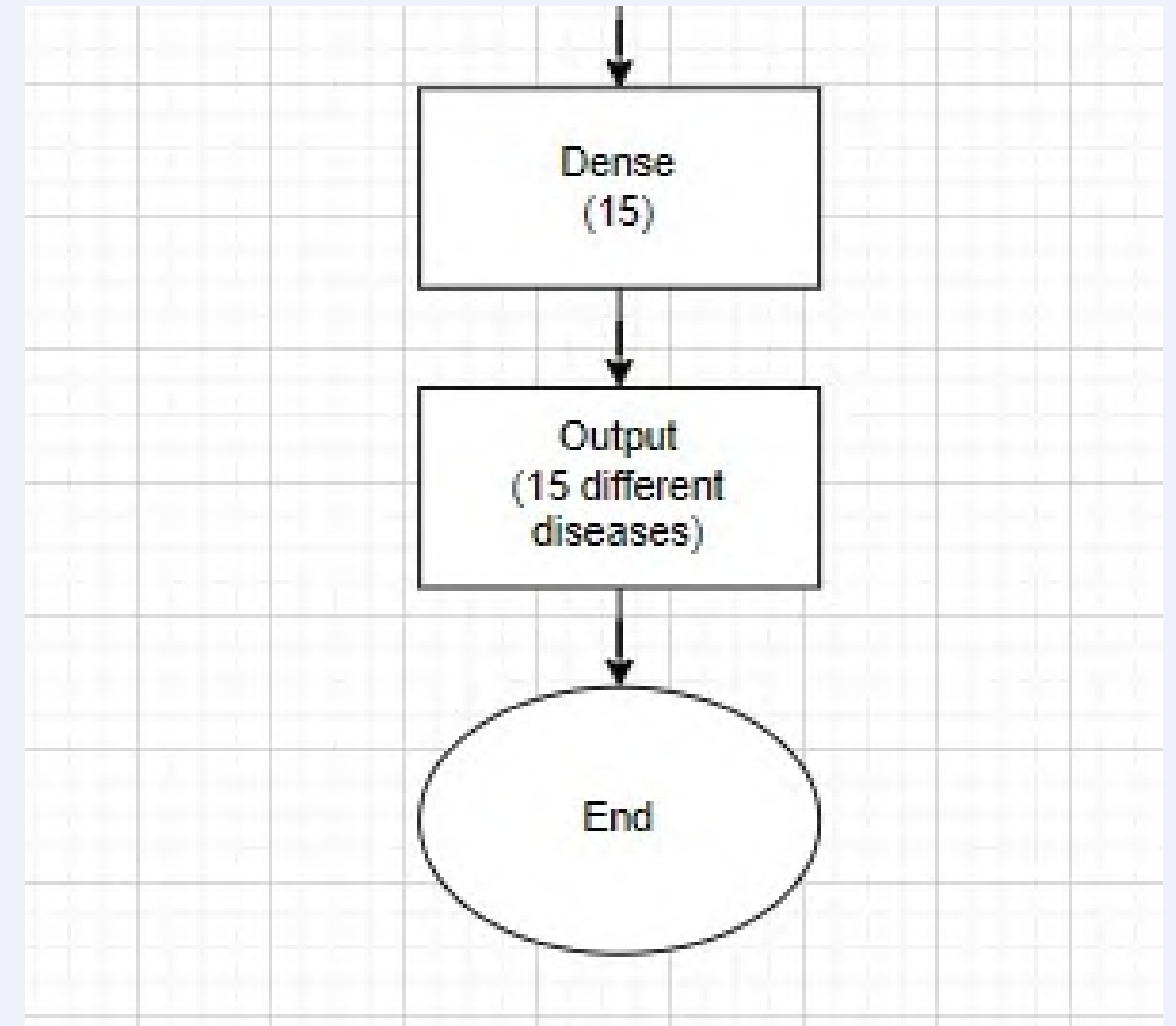
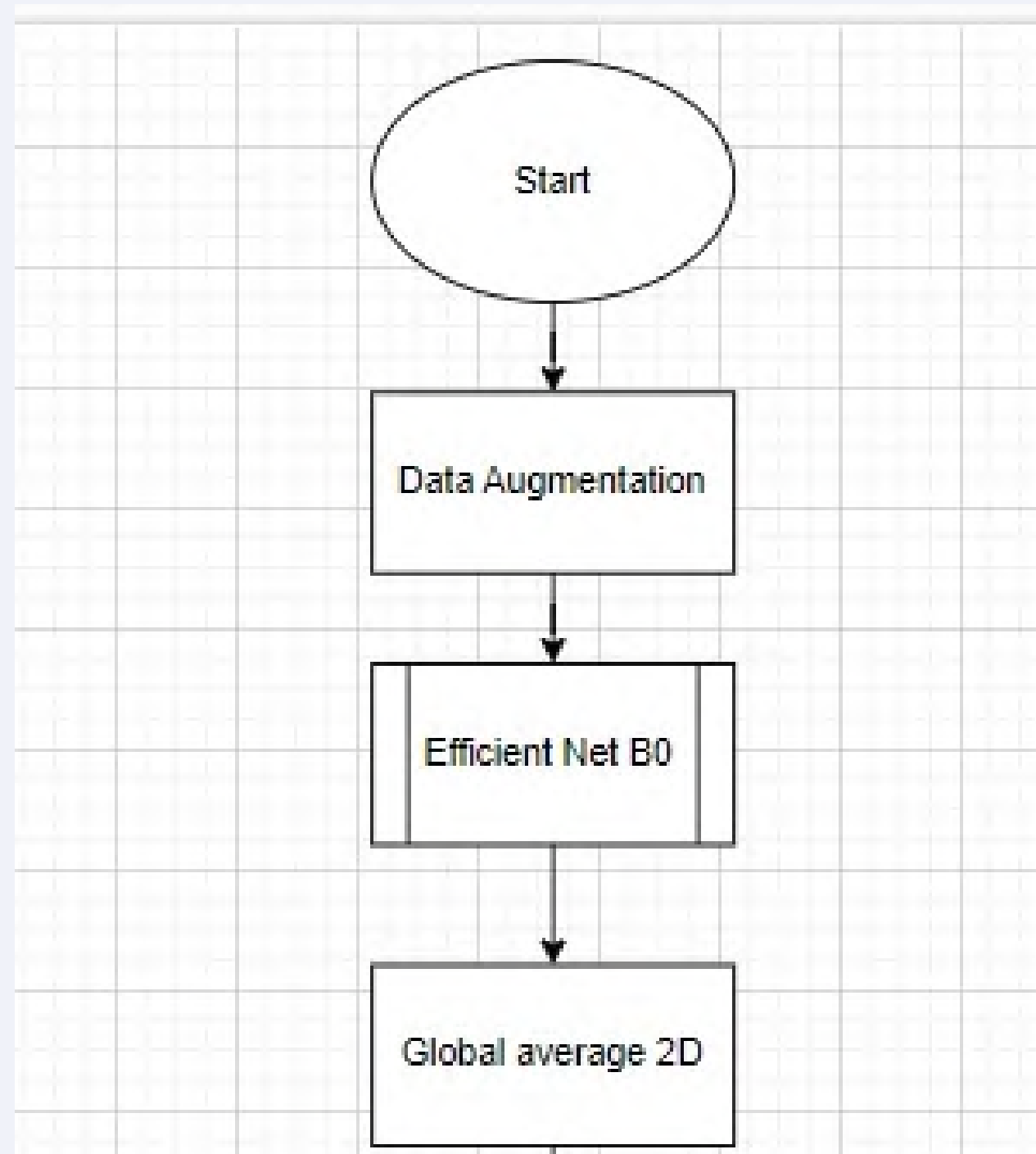
Flow Diagram of the complete model



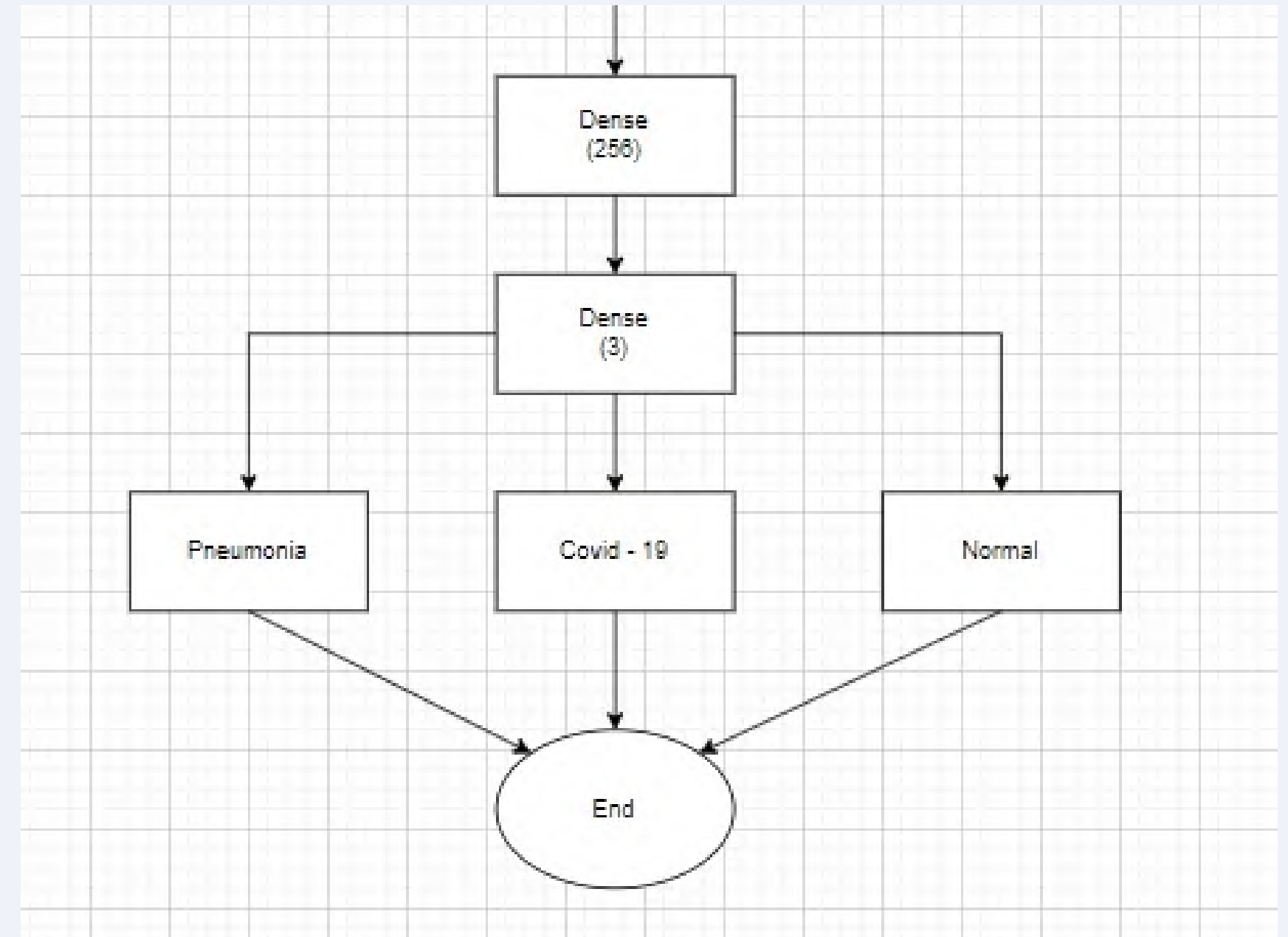
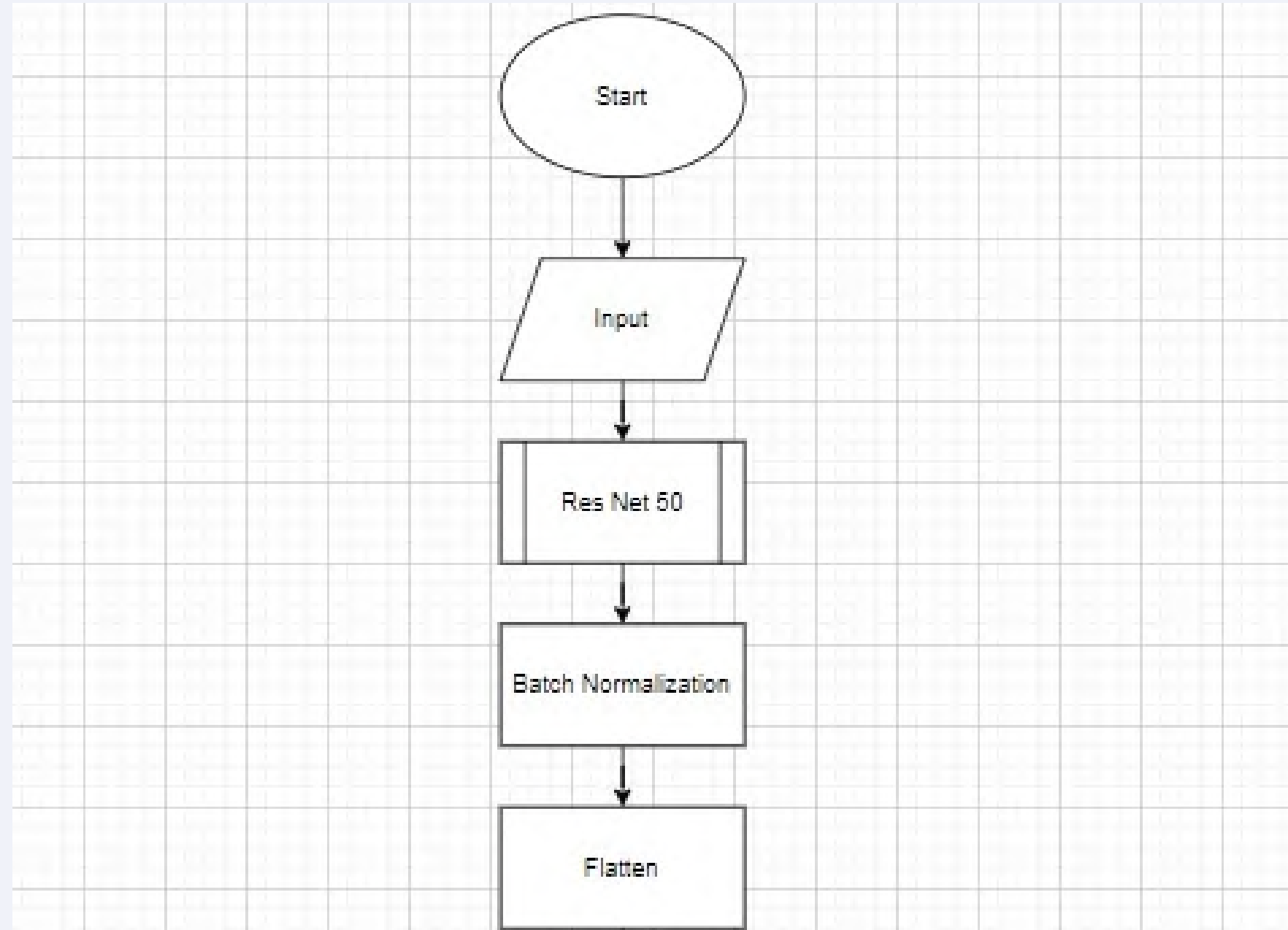
Model 1



Model 2



Model 3



Unique Selling Point

Accurate and reliable predictions

Deep learning models can analyze large and complex medical imaging datasets with high accuracy and reliability,

Faster and more efficient workflows

Deep learning models can process medical images in real-time, reducing the time and costs associated with manual image analysis and enabling faster and more efficient workflows in medical imaging.

Improved patient outcomes

Deep learning models can lead to improved patient outcomes by enabling earlier and more accurate diagnoses, more personalized treatment plans, and better disease management.

Versatility and adaptability

Deep learning models can be trained on a variety of medical imaging datasets, and their performance can be generalized to new datasets and imaging modalities

Monetization

Licensing to Hospitals and Medical Facilities

We can license your software to hospitals, clinics, and other medical facilities, charging them a fee for using your AI-powered software as part of their diagnostic process.

In-App Advertising

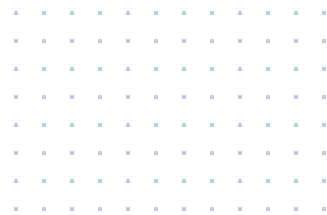
To make money, we can add advertising to the app. If we have a substantial user base, this could be a smart choice.

Subscription Model

We could develop a premium membership where users can access the app and its features, we can charge customers a monthly or annual subscription price.

Providing data labeling services

We can provide data labeling services to healthcare organizations that need labeled medical imaging data to train their AI models.



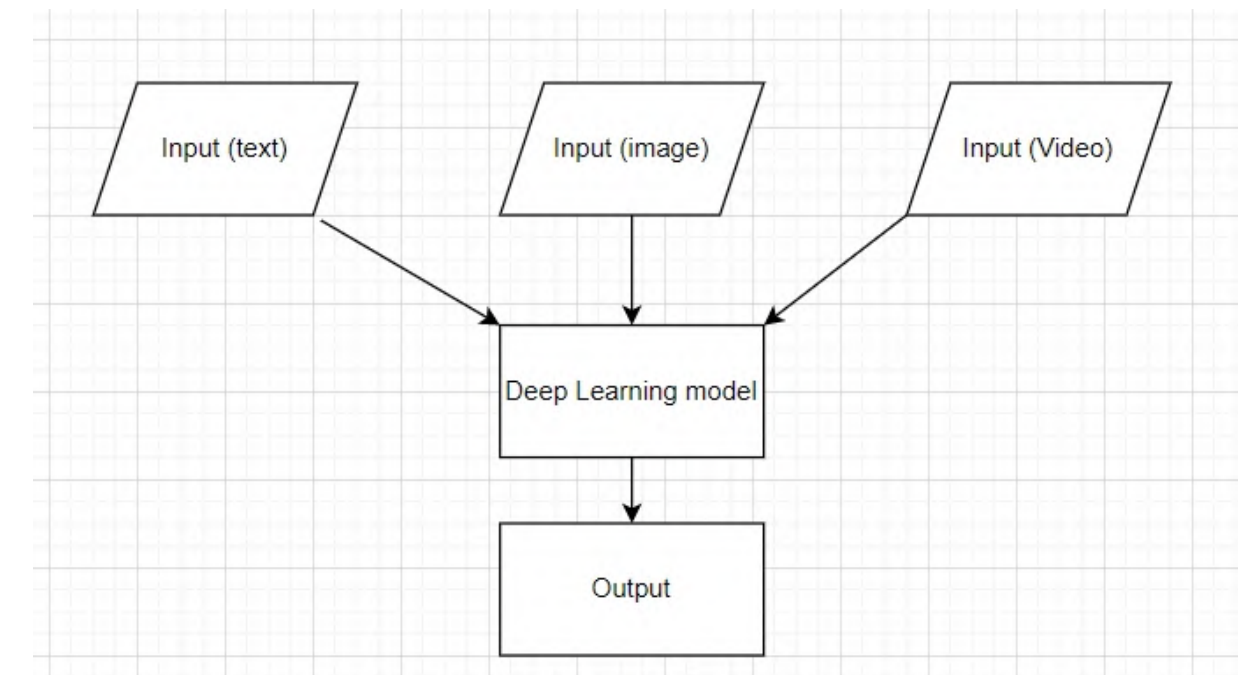
Future Scope

Generative AI



- Generate personalized treatment plans based on a patient's various factors.
- The generative AI model generates new images that are similar to the input data but can result in better machine learning due to increased volume or diversity in the data

Multi Input Model



- Multi-input AI models integrate diverse medical images and clinical data to improve predictions and insights.
- This model can lead to more accurate predictions and better insights into complex medical conditions

References

- <https://www.kaggle.com/datasets/nih-chest-xrays/data>
- <https://www.kaggle.com/datasets/nih-chest-xrays/sample>
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Thank You