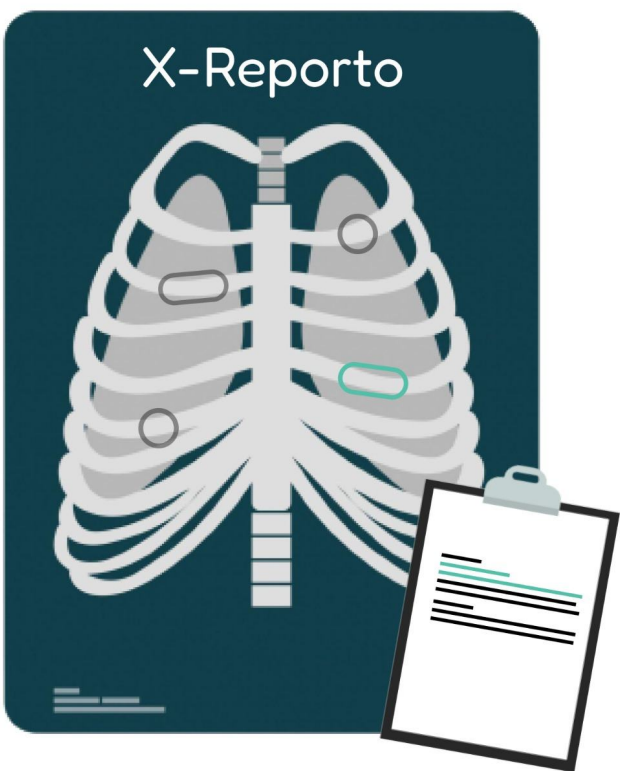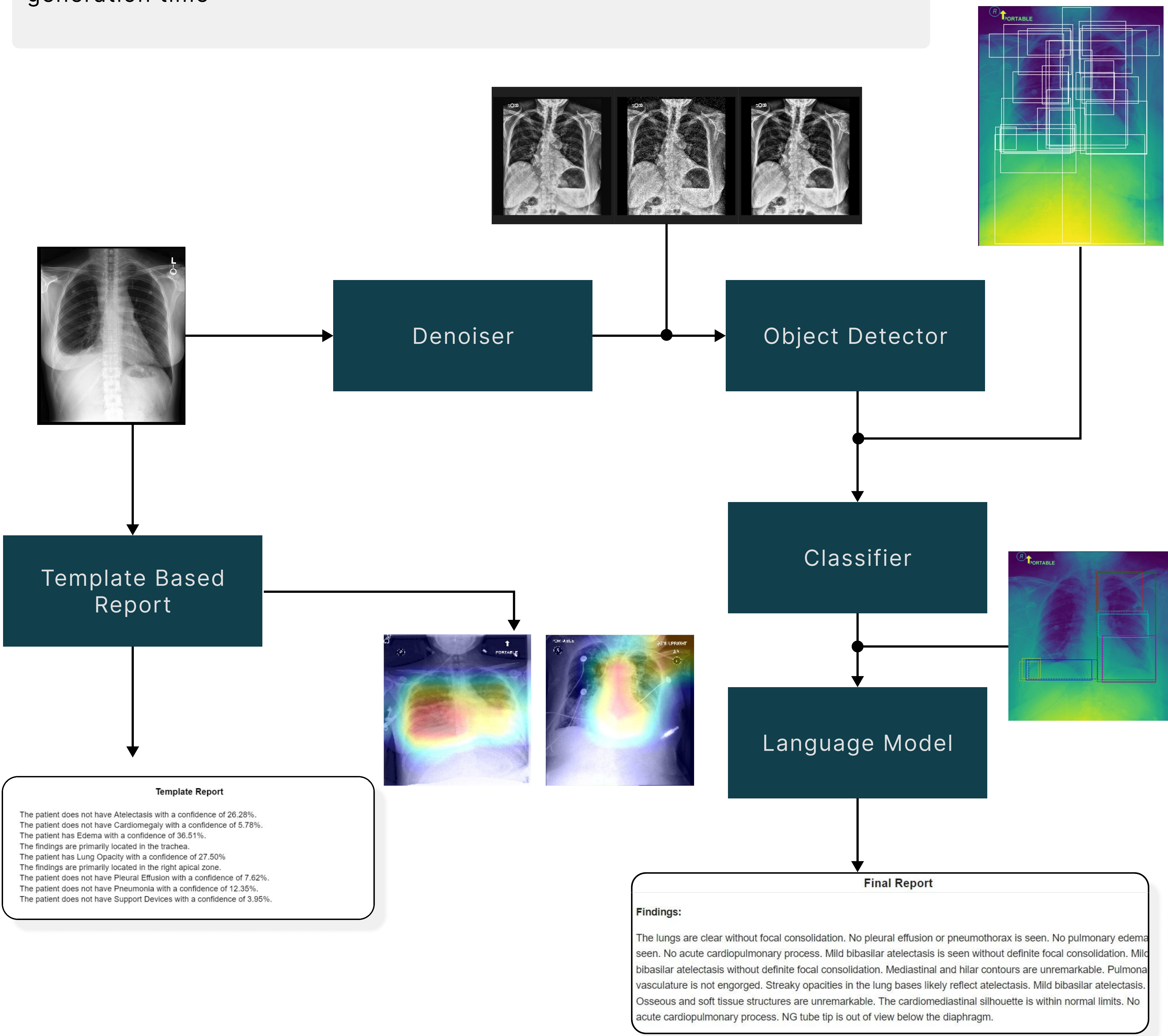# X-Reporto

Faculty of Engineering
Computer engineering department

Abstract

The project aims to alleviate the workload of radiologists by developing a semi-automated reporting system that generates preliminary reports for each anatomical region and identifies diseases. The system enhances chest X-ray images to preserve critical diagnostic information and generates comprehensive reports tailored to specific diseases. Testing results show improvements in image clarity and diagnostic accuracy, reducing report generation time

Denoiser	Object Detector

Template Based Report	Classifier

	Language Model

Template Report

The patient does not have Atelectasis with a confidence of 26.28%.
The patient does not have Cardiomegaly with a confidence of 5.78%.
The patient has Edema with a confidence of 36.51%.
The findings are primarily located in the trachea.
The patient has Lung Opacity with a confidence of 27.50%.
The findings are primarily located in the right apical zone.
The patient does not have Pleural Effusion with a confidence of 7.62%.
The patient does not have Pneumonia with a confidence of 12.35%.
The patient does not have Support Devices with a confidence of 3.95%.

Final Report

Findings:

The lungs are clear without focal consolidation. No pleural effusion or pneumothorax is seen. No pulmonary edema seen. No acute cardiopulmonary process. Mild bibasilar atelectasis is seen without definite focal consolidation. Mild bibasilar atelectasis without definite focal consolidation. Mediastinal and hilar contours are unremarkable. Pulmona vasculature is not engorged. Streaky opacities in the lung bases likely reflect atelectasis. Mild bibasilar atelectasis. Osseous and soft tissue structures are unremarkable. The cardiomediastinal silhouette is within normal limits. No acute cardiopulmonary process. NG tube tip is out of view below the diaphragm.

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