



Istaqim



جامعة أم القرى
UMM AL-QURA UNIVERSITY

An Assistant Application to Correct Prayer for Arab Muslims

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Abstract

Prayer is the second pillar of Islam, a link between the servant and his god, and Muslims must perform it five times a day. There are many postures in the pillars of prayer and its duties that must be performed in a precise manner. However, many Muslims, young and old, do not perform prayer properly due to having learned to pray incorrectly, having no one to personally guide them, or being new to prayer. To address this issue, we proposed developing an Artificial Intelligence assistant app using deep learning to guide worshipers by detecting the wrong postures in their prayers, assessing their mistakes, and showing corrections.

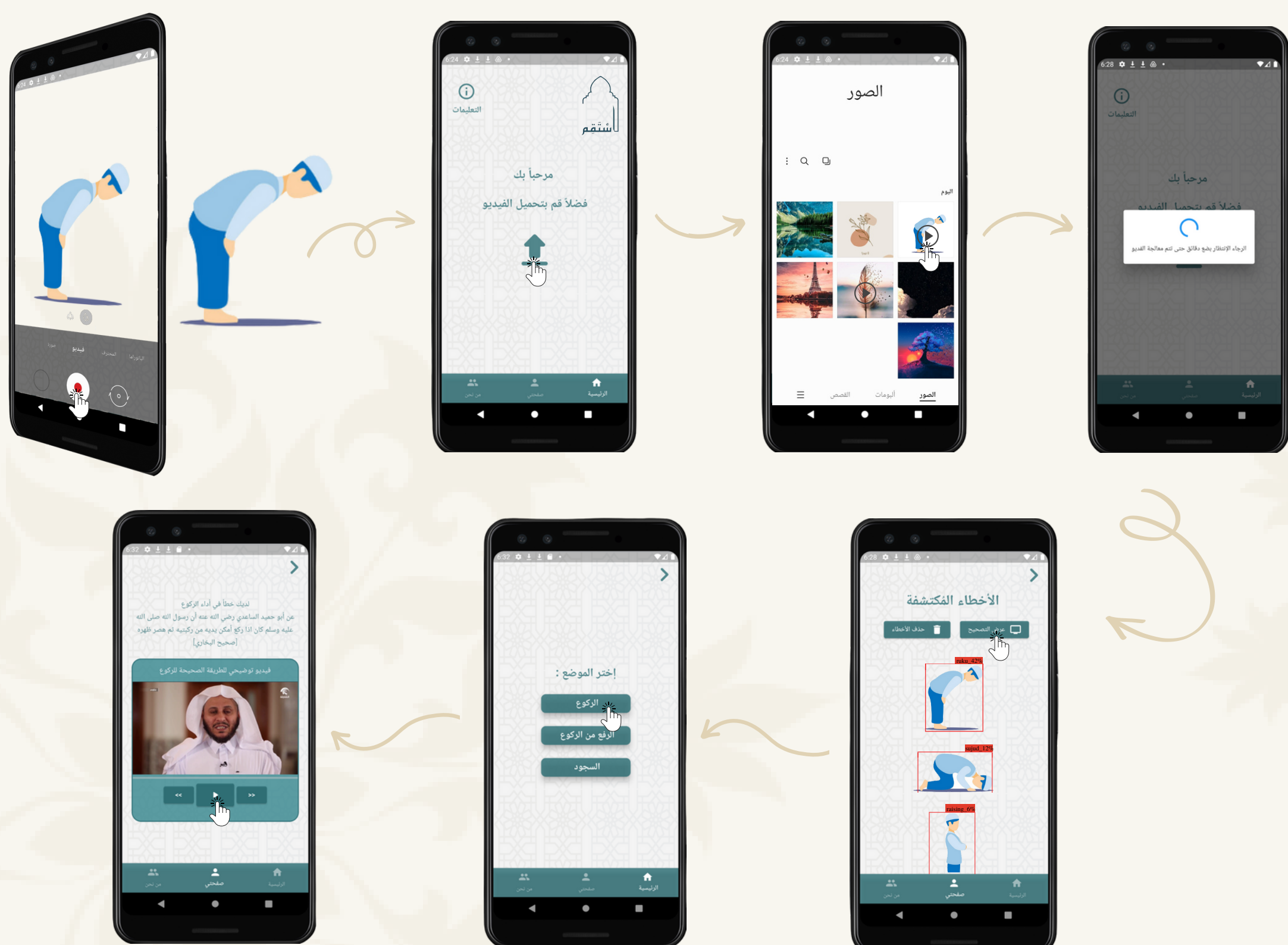
Objectives

1st Detect mistake and calculate the percentage error in:



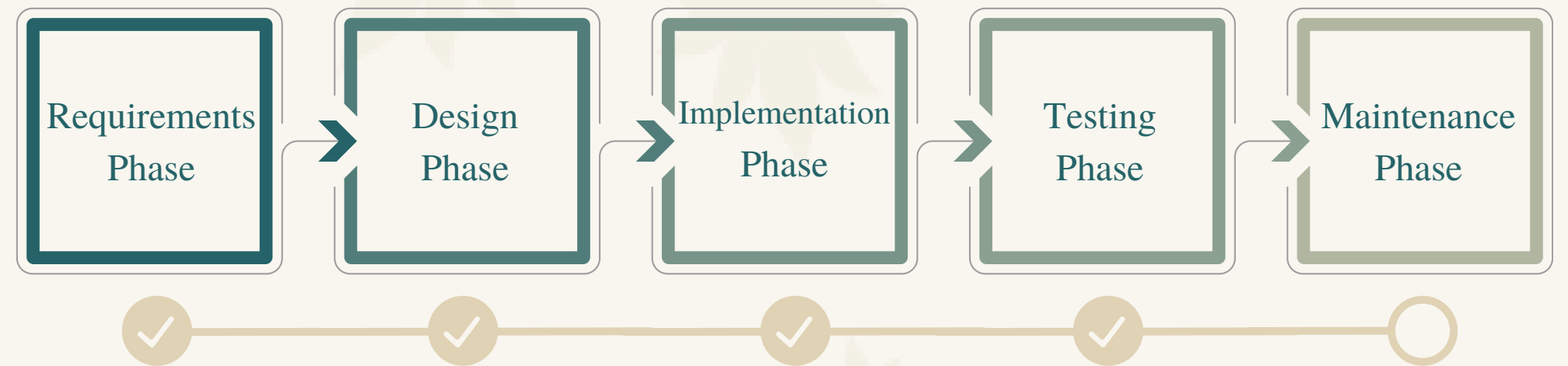
2nd Show correction of each mistake.

How App Work?



Methodology

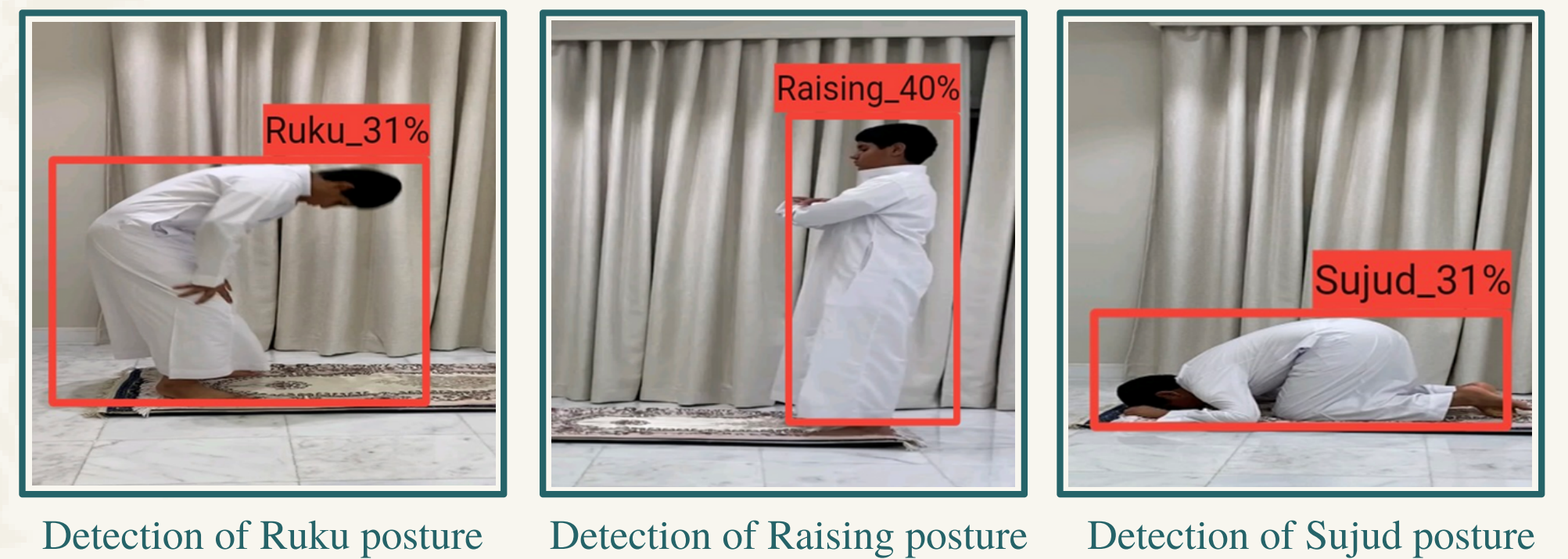
The Waterfall model has been chosen for this project.



Tools



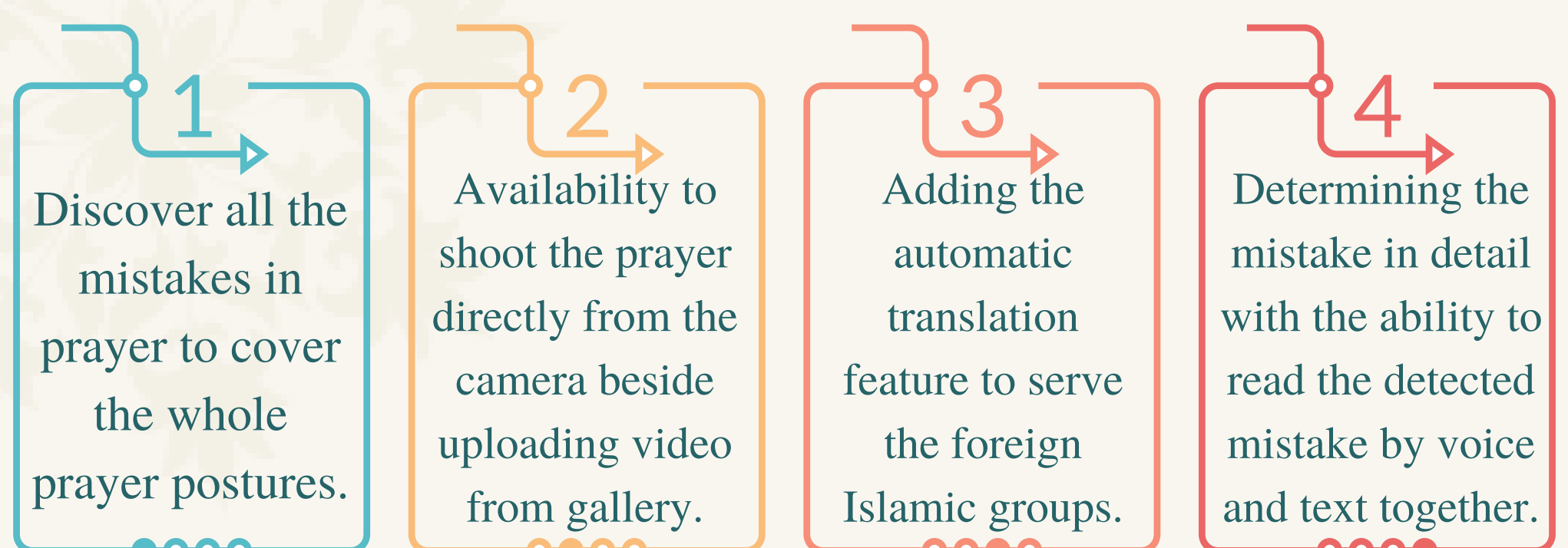
Results



Conclusion

This project focus on proposes a solution using Convolutional Neural Networks (CNN) and state-of-the-art YOLOv5 neural network by building a deep learning-based application that detect mistakes postures in prayer and evaluate the mistake of each posture with correction by supplying instructional videos of the correct postures.

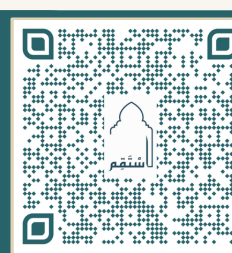
Future Work



Contact



Istaqim App



Refrence

