Goal
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- This enables playing compute-intensive games on mobile devices despite the resource constraints by offloading the processing onto the cloudlet.

Motivation
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Challenges
- Generation of high precision templates for volumetric matching.
- Camera service and event injection needs to be integrated within the Game code due to limitations in Android.
- Limited screen space to play non-overlapping gestures.

How to Play
Currently the mobile app supports three gestures, up right and left.

Project Description
User performs gestures to play the game in the mobile device.
User gestures are captured as video frames in the mobile device continuously and sent to the cloudlet for processing.
Volumetric template matching is triggered in the cloudlet to compare the video frames to a set of stored action templates.
The cloudlet returns the result of the comparison to the mobile device.
A keypress/swipe event is inject based on the received result which impacts the gameplay.

Future Work
- More robust computer vision algorithms for matching
- Object detection algorithm for playing with objects such as racquets.
- Support for faster, more complex games

Architecture

End to End Solution

How to Play
Currently the application supports three gestures, up right and left.