**Q. What is the purpose of using multiple anchors per feature map cell?**

Answer. This enables the network to predict multiple objects of different sizes per image location.

Each object is training image is assigned to grid cell that contain a objects midpoint and anchor box for the grid cell with highest Intersection of Union.

A single anchor at multiple positions is the same as a window, with the same shape as the anchor box, sliding over the visual field. Thus the motivation for having anchor boxes originates from the classical sliding window approach. Anchor boxes are like these windows of different aspect ratios, scales and positions sampling the visual space. Thus anchor boxes make it possible to detect multiple objects because without them different instances of the same object would interfere in terms of regression of the bounding boxes and classification.

Q. Does this problem require multiple anchors? Please justify your answer.

**Answer:** IfAverage size of the bounding boxes are constant of the whole dataset then one anchor box is enough .In our whole dataset ,size of the products in the shelves are almost same so we doesn't required multiple Anchor boxes. If the average is higher than we required multiple anchor boxes.