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## **UIKit - Nested Controllers & Storyboard**

Task 3: Diff between Frame and bound, Clip to bound and mask to bound, Strong and Weak Property.

All UIView subclasses have two properties known as frame and bounds. Both return a CGRect: a rectangle containing their X and Y position, their width and height.

**Bounds:** A view's location and size depending using its own coordinate system. It is important for placing the view's content or subview within itself.

**Frames:** A view's location and size depending using its parent view's coordinate system. It is important for placing the view in the parent.

**masksToBounds:** It is a boolean value indicating whether sublayers are clipped to the layer's bounds. Any sublayers of the layer that extend outside its boundaries will be clipped to those boundaries. When masksToBounds is NO, no clipping occurs. When the value of this property is true, Core Animation creates an implicit clipping mask that matches the bounds of the layer and includes any corner radius effects.

**clipToBounds:** The use case for clipsToBounds is more for subviews which are partially outside the main view. Example, if we have a (circular) subview on the edge of its parent (Square) UIView. If clipsToBounds is to set YES, only half the circle/subview will be shown. If set to NO, the whole circle will show up.

**Strong:** A strong reference means that you want to "own" the object you are referencing with this property/variable.

ARC helps to keep application's memory usage in check. ARC can only avoid strong reference cycles if made to do so. It applies a set of rules to figure out when it is appropriate to deallocate an object that is no longer needed. A strong reference cycle prevents an object that is no longer needed from being deallocated.

**Weak:** Weak references cannot prevent a class instance from being deallocated. A weak reference signifies that control over the object's lifetime is not required.