

# HOW TO MAKE AN APP FOR BEGINNERS

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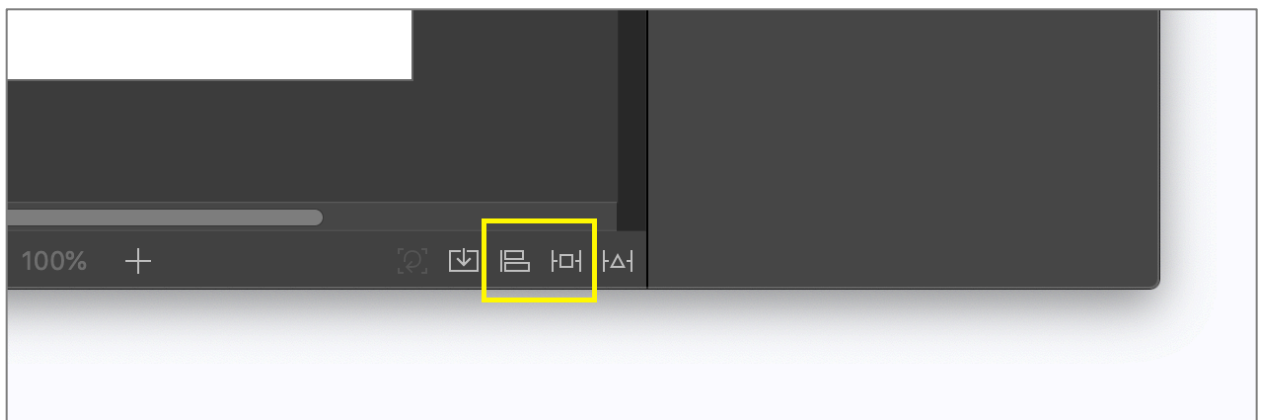
## Lesson 2 Auto Layout

### RECAP NOTES AND EXERCISES



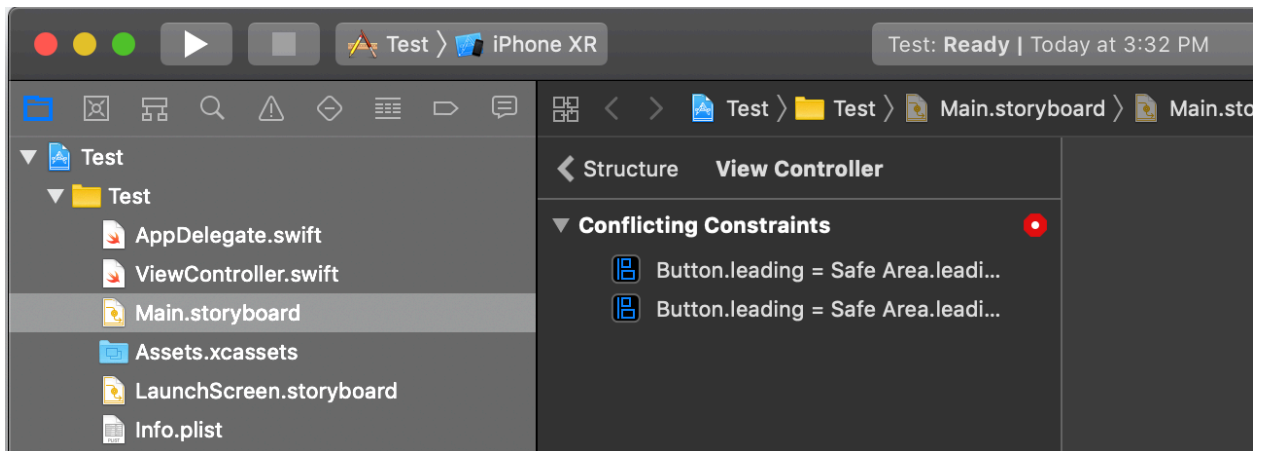
## Key Concepts

1. Auto layout is the system used to size and position elements on the screen
2. Before auto layout, elements were laid out using an X,Y coordinate system with the origin (0,0) being the upper left corner.
3. X is the horizontal axis and Y is the vertical axis.
4. You also had to manually specify a height and width for each element.
5. The X, Y, Width and Height values for an element is referred to as the "Frame" of that element.
6. Today, the coordinate system is still in place although we size and position elements using Auto Layout Constraints.
7. A constraint is a rule that dictates how an element is sized or positions relative to another element.
8. For example, if we want to make sure that two elements are both left aligned, we can add a Constraint saying: Element A's left property should be equal to Element B's left property.
9. You can add new constraints with these two buttons in Interface Builder:



10. The auto layout system will position and size elements by trying to satisfy all of the Constraints you've specified.
11. Sometimes you will end up in a situation where the auto layout system can't find a way to satisfy all of the Constraints. In this case, the system will automatically break one of the Constraints which can lead to unintended consequences to your layout.

12. If you have conflicting Constraints, Xcode will show you and give you some hints on how to solve it.



## Exercises

Check here for the exercises:

<https://codewithchris.com/beginner-youtube/>