

In this application you will push a button and the ball will move up and down. The application detects the touch event.

Step 1: Create a Single-View application using the template. Name the project "TouchMe." Select "Automatic Reference Counting" but do NOT select to use the storyboard feature.

Step 2: Xcode automatically creates the directory structure and adds essential frameworks to it. You can explore the directory structure to check out the content of the directory.

Step 3: Click on the ViewController.xib file to open it in the Interface Builder.

1. Drag the image view from the library and place it view window. Add an image to it. Wire it to the ViewController.h file as a property. Call it, "theImage."
2. Drag a label from the library and place it to the view window. Wire it to the ViewController.h also as a property. Call it, "theLabel."
3. Drag a Round Rect from the library, make the text of the button ready as, "Push." Wire the button's "Touch Up Inside" action to the ViewController.h and call the method "pushToStart."
4. Wire the View to the ViewController.h file and call it, "theView."

The finished ViewController.h file looks like this:

```
#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
@property (strong, nonatomic) IBOutlet UIView *theView;
@property (strong, nonatomic) IBOutlet UILabel *theLabel;
@property (strong, nonatomic) IBOutlet UIImageView *theImage;
- (IBAction)pushToStart:(UIButton *)sender;
@end
```

Step 4: Make the following changes in the ViewController.m file.

```
- (IBAction)pushToStart:(UIButton *)sender {
    [UIView beginAnimations:nil context:nil];
    [UIView setAnimationDuration:0.5];
    [UIView setAnimationBeginsFromCurrentState:YES];
    [UIView setAnimationRepeatCount:3];
    [UIView setAnimationRepeatAutoreverses:YES];
    CGAffineTransform transform2 = CGAffineTransformMakeTranslation(0.0,
-60.0);
    [theView setTransform:transform2];
}
```

```
        [UIView commitAnimations];
    }

    -(void)touchesBegan:(NSSet *)touches withEvent:(UIEvent *)event {
        theLabel.text=@"Touches Began";
    }
    -(void)touchesCancelled:(NSSet *)touches withEvent:(UIEvent *)event{
        theLabel.text=@"Touches Cancelled";
    }
    -(void)touchesEnded:(NSSet *)touches withEvent:(UIEvent *)event {
        theLabel.text=@"Touches stopped";
    }
    -(void)touchesMoved:(NSSet *)touches withEvent:(UIEvent *)event{
        theLabel.text=@"Drag detected";
    }
}
```

Step 7: Compile and run!