

This application creates a moving ball on the window. It is a demonstration of some of the animation features of app development.

Step 1: Open the Xcode, Create a new project using Single-View Base application. Give the application "MovingBall" Use the ARC option. Don't use the storyboard option.

Step 2: Add this code to your ViewController.h header file:

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

@interface ViewController : UIViewController
{
    UIImage* ballImage;
}
@property (nonatomic, retain) UIImage* ballImage;
- (void)onTimer;
- (void)onAnimationComplete:(NSString *)animationID finished:(NSNumber *)finished context:(void *)context;
@end
```

Step 3: Click your ViewController.xib file and open it to Interface Builder.

1. Wire the view to the ViewController.h file. (Click on tuxedo icon. Click on the view (in the XIB window) and Control + drag it to the file on the right.) Call the view "ballview."

2. Optionally, change the background color if you want. So you can see the color being changed by the source code.

Step 4: Edit ViewControll.m. In the viewDidLoad method, we will set the background color, load the image, and set the timer. Add the following methods to the top of the source code and leave the existing code in place.

```
@synthesize ballImage;

- (void)viewDidLoad
{
    [super viewDidLoad];
    self.view.backgroundColor = [UIColor colorWithRed:0.0 green:0.2 blue:0.18 alpha:1.0];
    ballImage = [UIImage imageNamed:@"ball.png"];

    [NSTimer scheduledTimerWithTimeInterval:(0.08) target:self
    selector:@selector(onTimer) userInfo:nil repeats:YES];
}
```

```

}

- (void)onTimer
{
    UIImageView* ballView = [[UIImageView alloc] initWithImage:ballImage];
    int startX = round(random() % 320);
    int endX = round(random() % 320);
    double scale = 1 / round(random() % 100) + 1.0;
    double speed = 1 / round(random() % 100) + 1.0;

    ballView.frame = CGRectMake(startX, -100.0, 25.0 * scale, 25.0 * scale);
    ballView.alpha = 0.25;
    [self.view addSubview:ballView];
    [UIView beginAnimations:nil context:nil];
    [UIView setAnimationDuration:5 * speed];
    ballView.frame = CGRectMake(endX, 500.0, 25.0 * scale, 25.0 * scale);
    [UIView
setAnimationDidStopSelector:@selector(onAnimationComplete:finished:context:)]];
    [UIView setAnimationDelegate:self];
    [UIView commitAnimations];

}

- (void)onAnimationComplete:(NSString *)animationID finished:(NSNumber
*)finished context:(void *)context {
    //    [ballview removeFromSuperview];
}

```

Step 5: Compile and run your application!