

This project demonstrates the touch function implemented in the UIImageView.

Step 1: Create a Single-View application using template. Give the application name "ImageMove".

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: We need to add an image file called as "monkey.png" into the project folder.

Step 4: Open the AppDelegate.h file, define the "ViewController" class in the file. The finished file looks like this:

```
#import <UIKit/UIKit.h>
@class ViewController;
@interface AppDelegate : UIResponder <UIApplicationDelegate>
{
    UIWindow *window;
    ViewController *touchImageViewController;
}
@property (strong, nonatomic) UIWindow *window;
@property (strong, nonatomic) ViewController *viewController;
@end
```

Step 5: Make the following changes in the AppDelegate.m file.

```
- (void)applicationDidFinishLaunching:(UIApplication *)application {
    touchImageViewController = [[ViewController
alloc] initWithNibName:@"TouchImageViewController" bundle:[NSBundle
 mainBundle]];
    [window addSubview:[touchImageViewController view]];
    [window makeKeyAndVisible];
}
```

Step 6: Click ViewController.xib file open it to the Interface Builder. Drag Image View from the library and place it to the view window. Wire the image to the ViewController.h file.

Label the property for the imageview "displayImage."

Declare two variables timer and distance, define two methods. The Finished ViewController.h file looks like this:

```
#import <UIKit/UIKit.h>
@interface ViewController : UIViewController
```

```

{
    CGFloat distance;
    NSTimer *timer;
}

@property (strong, nonatomic) IBOutlet UIImageView *displayImage;
- (CGFloat)distanceBetweenTwoPoints:(CGPoint)fromPoint toPoint:
(CGPoint)toPoint;
- (void)Touches;
@end

```

Step 7: Add the following source code to the ViewController.m file.

```

- (void)touchesBegan:(NSSet *)touches withEvent:(UIEvent *)event {

    NSSet *allTouches = [event allTouches];

    switch ([allTouches count]) {
        case 1: {

            UITouch *touch = [[allTouches allObjects] objectAtIndex:0];

            switch ([touch tapCount])
            {

                case 1:
                {
                    timer = [NSTimer scheduledTimerWithTimeInterval:2
target:self
                    selector:@selector(showAlertView:) userInfo:nil
repeats:NO];

                    } break;
                case 2: {
                    UITouch *touch1 = [[allTouches allObjects] objectAtIndex:
0];
                    UITouch *touch2 = [[allTouches allObjects] objectAtIndex:
1];

                    distance = [self distanceBetweenTwoPoints:[touch1
locationInView:[self view]]
                    toPoint:[touch2 locationInView:[self view]]];
                    } break;
            }
        } break;
        case 2: {
        } break;
    }
}

```

```

        default:
            break;
    }
}

- (void)touchesMoved:(NSSet *)touches withEvent:(UIEvent *)event {

    if([timer isValid])
        [timer invalidate];

    NSSet *allTouches = [event allTouches];

    switch ([allTouches count])
    {
        case 1: {
            UITouch *touch = [[allTouches allObjects] objectAtIndex:0];
            CGPoint centerPoint = [touch locationInView:[self view]];
            [displayImage setCenter:centerPoint];
        } break;
        case 2: {
            UITouch *touch1 = [[allTouches allObjects] objectAtIndex:0];
            UITouch *touch2 = [[allTouches allObjects] objectAtIndex:1];
            CGFloat finalDistance = [self distanceBetweenTwoPoints:[touch1
locationInView:[self view]]
toPoint:[touch2 locationInView:[self view]]];

            if(distance > finalDistance) {
            }
            else {
            }

        } break;
    }
}

- (void)touchesEnded:(NSSet *)touches withEvent:(UIEvent *)event {

    if([timer isValid])
        [timer invalidate];

    NSSet *allTouches = [event allTouches];

    switch ([allTouches count])
    {
        case 1:
        {

```

```

        UITouch *touch = [[allTouches allObjects] objectAtIndex:0];

        switch([touch tapCount])
        {
            case 1:
                displayImage.contentMode =
UIViewContentModeScaleAspectFit;
                break;
            case 2:
                displayImage.contentMode = UIViewContentModeCenter;
                break;
        }
    }
    break;
}
[self Touches];
}

- (void) touchesCanceled {
    [self Touches];
}

- (CGFloat)distanceBetweenTwoPoints:(CGPoint)fromPoint toPoint:
(CGPoint)toPoint {

    float x = toPoint.x - fromPoint.x;
    float y = toPoint.y - fromPoint.y;
    return sqrt(x * x + y * y);
}

- (void)Touches {
    distance = -1;
}

@end

```

Setp 8. Compile and Run!