**IOs Exam2 Notes**

**import** UIKit

**class** **ResultViewController**: UIViewController {

**@IBOutlet** **weak** **var** displayAmountOL: UILabel!

**@IBOutlet** **weak** **var** displayDiscRateOL: UILabel!

**@IBOutlet** **weak** **var** displayPriceAfterDiscOL: UILabel!

**@IBOutlet** **weak** **var** imageViewOL: UIImageView!

**var** amount = ""

**var** discRate = ""

**var** priceAfterDiscount = 0.0

**var** imagename = ""

**override** **func** viewDidLoad() {

**super**.viewDidLoad()

print(amount)

displayAmountOL.text! += amount

displayAmountOL.text! += discRate

displayPriceAfterDiscOL.text! += String(priceAfterDiscount)

imageViewOL.image = UIImage(named: imagename)

}

**import** UIKit

**class** **ViewController**: UIViewController {

**@IBOutlet** **weak** **var** EnterAmtOL: UITextField!

**@IBOutlet** **weak** **var** DiscRateOL: UITextField!

**var** priceAfterDiscount = 0.0

**var** imageName = ""

**override** **func** viewDidLoad() {

**super**.viewDidLoad()

// Do any additional setup after loading the view.

}

**@IBAction func CalculateBtn(\_ sender: Any)** {

**//Read the amount from amountOl**

**var amount = Double(EnterAmtOL.text!)**

**// Read the Discount rate from DiscRateOL**

**var discRate = Double(DiscRateOL.text!)**

**priceAfterDiscount = amount! - (amount! \* discRate!/100)**

**if(discRate! > 0.0){**

**imageName = "Discount"**

**}**

**else{**

**imageName = "no-discount"**

}

}

**override** **func** prepare(for segue: UIStoryboardSegue, sender: **Any**?)

{

**var** transition = segue.identifier

**if** transition == "ResultSegue"{

**var** destination = segue.destination **as**! ResultViewController

destination.amount = EnterAmtOL.text!

destination.discRate = DiscRateOL.text!

destination.priceAfterDiscount = priceAfterDiscount

destination.imagename = imageName

}

}

}

**Animation COde**

**var largeFrame = CGRect(x: x, y: y, width: 2, height: height)**

**UIView.animate(withDuration: 1, delay: 0, usingSpringWithDamping: 0.4, initialSpringVelocity: 50, animations: {**

**self.imageOutlet.frame = largeFrame**

**BMI**

**import** UIKit

**class** **ViewController**: UIViewController {

**@IBOutlet** **weak** **var** enterWeightOL: UITextField!

**@IBOutlet** **weak** **var** enterHeightOL: UITextField!

**var** weight = 0.0

**var** height = 0.0

**var** bmi = 0.0

**var** imageName = ""

**override** **func** viewDidLoad() {

**super**.viewDidLoad()

// Do any additional setup after loading the view.

**self**.title = "BMI"

}

**@IBAction** **func** calcBMI(\_ sender: UIButton) {

weight = Double(enterWeightOL.text!)!

height = Double(enterHeightOL.text!)!

bmi = (weight/(height \* height) ) \* 703

print(bmi);

**if** bmi <= 18.4{

imageName = "Underweight"

}

**else** **if**(bmi >= 18.5 && bmi <= 24.9){

imageName = "Normalweight"

}

**else** **if**(bmi >= 25.0 && bmi <= 39.9){

imageName = "Overweight"

}

**else**{

imageName = "Obeseweight"

}

}

**override** **func** prepare(for segue: UIStoryboardSegue, sender: **Any**?) {

**var** transition = segue.identifier

**if** transition == "resultSegue"{

**var** destination = segue.destination **as**! ResultViewController

destination.weight = weight

destination.height = height

destination.bmi = bmi

destination.image = imageName

}

}

}

**import** UIKit

**class** **ResultViewController**: UIViewController {

**var** height = 0.0

**var** weight = 0.0

**var** image = ""

**var** bmi = 0.0

**@IBOutlet** **weak** **var** enterWeightOL: UILabel!

**@IBOutlet** **weak** **var** enterHeightOL: UILabel!

**@IBOutlet** **weak** **var** displayBMI: UILabel!

**@IBOutlet** **weak** **var** imageViewOL: UIImageView!

**override** **func** viewDidLoad() {

**super**.viewDidLoad()

print(weight)

enterWeightOL.text! += String(weight)

enterHeightOL.text! += String(height)

displayBMI.text! += String(bmi)

imageViewOL.image = UIImage(named: image)

// Do any additional setup after loading the view.

}

**AnimationApp Code**

import UIKit

class ViewController: UIViewController {

@IBOutlet weak var imageOutlet: UIImageView!

@IBOutlet weak var happyOutlet: UIButton!

@IBOutlet weak var sadOutlet: UIButton!

@IBOutlet weak var angryOutlet: UIButton!

@IBOutlet weak var shakeMeOutlet: UIButton!

@IBOutlet weak var showOutlet: UIButton!

override func viewDidLoad() {

super.viewDidLoad()

// Do any additional setup after loading the view.

}

override func viewDidAppear(\_ animated: Bool) {

//Move the image view outside of the screen view.

imageOutlet.frame.origin.x = view.frame.maxX

//Similarly, move other components as well outside of the screen

happyOutlet.frame.origin.x = view.frame.width

sadOutlet.frame.origin.x = view.frame.width

angryOutlet.frame.origin.x = view.frame.width

shakeMeOutlet.frame.origin.x = view.frame.width

}

@IBAction func happyButtonClicked(\_ sender: UIButton) {

updateAndAnimate("happy")

}

@IBAction func sadButtonClicked(\_ sender: Any) {

updateAndAnimate("sad")

}

@IBAction func angryButtonClicked(\_ sender: Any) {

updateAndAnimate("angry")

}

@IBAction func shakeMeButtonClicked(\_ sender: Any) {

var width = imageOutlet.frame.width

width += 40

var height = imageOutlet.frame.height

height = height + 40

var x = imageOutlet.frame.origin.x-20

var y = imageOutlet.frame.origin.y-20

var largeFrame = CGRect(x: x, y: y, width: width, height: height)

UIView.animate(withDuration: 1, delay: 0, usingSpringWithDamping: 0.4, initialSpringVelocity: 50, animations: {

self.imageOutlet.frame = largeFrame

})

}

@IBAction func showButtonClicked(\_ sender: Any) {

UIView.animate(withDuration: 1, animations: {

//Move all the compoenets to the center and disable show button

self.imageOutlet.center.x = self.view.center.x

self.happyOutlet.center.x = self.view.center.x;

self.sadOutlet.center.x = self.view.center.x;

self.angryOutlet.center.x = self.view.center.x;

self.shakeMeOutlet.center.x = self.view.center.x

})

showOutlet.isEnabled = false

}

func updateAndAnimate(\_ imageName : String){

//making the current image opaque.

UIView.animate(withDuration: 1, animations: {

self.imageOutlet.alpha = 0

})

//Assign the new image with animation and make it transparent. (alpha = 1)

UIView.animate(withDuration: 1, delay:0.5, animations: {

self.imageOutlet.alpha = 1

self.imageOutlet.image = UIImage(named: imageName)

})

}

}