```swift
//
//  WordProcessing.swift
//  FBLA-QuizME
//
//  Created by Suchir Agarwal on 11/25/18.
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//

import Foundation
import UIKit

class WordProcessing: UIViewController {

    // Set up variables that represent labels and buttons on the storyboard
    @IBOutlet weak var QuestionLabel: UILabel!
    @IBOutlet weak var Answer1: UIButton!
    @IBOutlet weak var Answer2: UIButton!
    @IBOutlet weak var Answer3: UIButton!
    @IBOutlet weak var Answer4: UIButton!
    @IBOutlet weak var NextQuestion: UIButton!
    @IBOutlet weak var ScoreLabel: UILabel!

    // Create an array of integers that represent the number of questions
    var randomQuestionArray:[Int] = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]

    override func viewDidLoad() {
        super.viewDidLoad()

        // Hide Initial Next Question Buttons
        NextQuestion.isHidden = true

        //Format the buttons
        Answer1.layer.borderWidth=1
        Answer1.layer.borderColor=UIColor.darkGray.cgColor
        Answer1.layer.cornerRadius=5
        Answer2.layer.borderWidth=1
        Answer2.layer.borderColor=UIColor.darkGray.cgColor
        Answer2.layer.cornerRadius=5
        Answer3.layer.borderWidth=1
        Answer3.layer.borderColor=UIColor.darkGray.cgColor
        Answer3.layer.cornerRadius=5
        Answer4.layer.borderWidth=1
        Answer4.layer.borderColor=UIColor.darkGray.cgColor
        Answer4.layer.cornerRadius=5

        // Set the answers to be incorrect
        Answer1Correct = false
        Answer2Correct = false
        Answer3Correct = false
        Answer4Correct = false

        // As soon as the view loads start generating the questions
        RandomQuestions()

        ScoreNumber = 0
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }
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    // If the answer is right then the Next Question button is enabled
    func rightAnswer() {
        NextQuestion.isHidden = false
        ScoreNumber = Int(ScoreNumber) + 2
        ScoreLabel.text = String(format: "%i", ScoreNumber)
    }

    // If the answer is wrong then the Next Question button is hidden
    func wrongAnswer() {
        ScoreNumber = Int(ScoreNumber) - 1
        ScoreLabel.text = String(format: "%i", ScoreNumber)
    }

    // This function randomly generates questions without repeat
    func RandomQuestions(){

        Answer1.isEnabled = true
        Answer2.isEnabled = true
        Answer3.isEnabled = true
        Answer4.isEnabled = true


        // This makes randomIndex represent the number of questions available for this
question
        let randomIndex = Int(arc4random_uniform(UInt32(randomQuestionArray.count)))

        // Generates questions until all of the questions for this topic have been
answered
        if randomQuestionArray.count > -1 {

            switch (randomQuestionArray[randomIndex]) {
            case 0:
                QuestionLabel.text = "On Wednesday we will attend"
                Answer1.setTitle("their track mete", for: .normal)
                Answer2.setTitle("their track meet", for: .normal)
                Answer3.setTitle("there track meat", for: .normal)
                Answer4.setTitle("their track meat", for: .normal)
                Answer2Correct = true
            case 1:
                QuestionLabel.text = "The proofreader's mark \"stet\" means"
                Answer1.setTitle("no new paragraph", for: .normal)
                Answer2.setTitle("transpose", for: .normal)
                Answer3.setTitle("let it stand", for: .normal)
                Answer4.setTitle("close up", for: .normal)
                Answer3Correct = true
            case 2:
                QuestionLabel.text = "A subject line is related to"
                Answer1.setTitle("the body of the leter", for: .normal)
                Answer2.setTitle("the inside address", for: .normal)
                Answer3.setTitle("the salutation", for: .normal)
                Answer4.setTitle("the attention line", for: .normal)
                Answer1Correct = true
            case 3:
                QuestionLabel.text = "The enclosure notation is typed a double space
below the"
                Answer1.setTitle("reference initials", for: .normal)
                Answer2.setTitle("open", for: .normal)
                Answer3.setTitle("title", for: .normal)
                Answer4.setTitle("double", for: .normal)
                Answer1Correct = true
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            case 4:
                QuestionLabel.text = "To return to a single Word window from a split
window, click Window on the menu bar and then click"
                Answer1.setTitle("Full Screen", for: .normal)
                Answer2.setTitle("Remove Split", for: .normal)
                Answer3.setTitle("Single Window", for: .normal)
                Answer4.setTitle("Restore", for: .normal)
                Answer2Correct = true
            case 5:
                QuestionLabel.text = "How do you move to the beginning of a document?"
                Answer1.setTitle("[Home]", for: .normal)
                Answer2.setTitle("[Ctrl]+[Home]", for: .normal)
                Answer3.setTitle("[PageUp]", for: .normal)
                Answer4.setTitle("[Ctrl]+[PageUp]", for: .normal)
                Answer2Correct = true
            case 6:
                QuestionLabel.text = "Which of the following is the preferred text
alignment in a three-column document?"
                Answer1.setTitle("Left", for: .normal)
                Answer2.setTitle("Right", for: .normal)
                Answer3.setTitle("Center", for: .normal)
                Answer4.setTitle("Justified", for: .normal)
                Answer1Correct = true
            case 7:
                QuestionLabel.text = "Notes or annotations you add to a document are
called"
                Answer1.setTitle("comments", for: .normal)
                Answer2.setTitle("suggestions", for: .normal)
                Answer3.setTitle("revisions", for: .normal)
                Answer4.setTitle("reviews", for: .normal)
                Answer1Correct = true
            case 8:
                QuestionLabel.text = "What happens when you narrow te space between
columns without changing the number of columns?"
                Answer1.setTitle("Columns widen", for: .normal)
                Answer2.setTitle("Columns narrow", for: .normal)
                Answer3.setTitle("Space between columns does not affect column width",
for: .normal)
                Answer4.setTitle("None of the above", for: .normal)
                Answer1Correct = true
            case 9:
                QuestionLabel.text = "What is the name of the feature for changing a
picture to a percentage of its original size?"
                Answer1.setTitle("Size", for: .normal)
                Answer2.setTitle("Scale", for: .normal)
                Answer3.setTitle("Crop", for: .normal)
                Answer4.setTitle("Select", for: .normal)
                Answer3Correct = true
            case 10:
                QuestionLabel.text = "What is an antonym?"
                Answer1.setTitle("Word with similar meaning", for: .normal)
                Answer2.setTitle("Word with equivalent meaning", for: .normal)
                Answer3.setTitle("Word with opposite meaning", for: .normal)
                Answer4.setTitle("Word with multiple meanings", for: .normal)
                Answer3Correct = true
            case 11:
                QuestionLabel.text = "Which of the following is a recommended format
for information in tables?"
                Answer1.setTitle("Right-align text, right-align numbers", for:
.normal)
                Answer2.setTitle("Left-align text, left-align numbers", for: .normal)
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                Answer3.setTitle("Right-align text, left-align numbers", for: .normal)
                Answer4.setTitle("Left-align text, right-align", for: .normal)
                Answer4Correct = true
            case 12:
                QuestionLabel.text = "Which of the following inserts a nonbreaking
space"
                Answer1.setTitle("[Ctrl]+[Spacebar]", for: .normal)
                Answer2.setTitle("[Shift] + [Spacebar]", for: .normal)
                Answer3.setTitle("[Ctrl] + [Shift] + [Spacebar]", for: .normal)
                Answer4.setTitle("None of the above", for: .normal)
                Answer3Correct = true
            case 13:
                QuestionLabel.text = "In a business letter, you generally ____ to
indicate the beginning of a new paragraph."
                Answer1.setTitle("date", for: .normal)
                Answer2.setTitle("single space", for: .normal)
                Answer3.setTitle("skip a line", for: .normal)
                Answer4.setTitle("none of the above", for: .normal)
                Answer3Correct = true
            default:
                break
            }
            // Removes the possibility of the question that was just shown to be shown
again
            randomQuestionArray.remove(at: randomIndex)
        }

        // If the user is on the last question then show them that they have reached
the last question
        if (randomQuestionArray.count < 1) {
            let alert = UIAlertController(title: "Wow!", message: "You have reached
the last question for Word Processing! Nice Job! Complete this question and then click
on 'Your Score' for a rating!", preferredStyle: .alert)
            alert.addAction(UIAlertAction(title: "Continue", style: .default, handler:
{ action in
                switch action.style{
                case .default:
                    print("default")
                case .cancel:
                    print("cancel")
                case .destructive:
                    print("destructive")
                }}))
            self.present(alert, animated: true, completion: nil)
            NextQuestion.isEnabled = false
        }
    }

    // These 4 functions tell the user if they got the correct answer or if they got
the incorrect answer
    @IBAction func Answer1(_ sender: Any) {
        if Bool(Answer1Correct) == true {
            rightAnswer()
            Answer1.layer.backgroundColor = UIColor.green.cgColor
            Answer1.isEnabled = false
            Answer2.isEnabled = false
            Answer3.isEnabled = false
            Answer4.isEnabled = false
        } else {
            wrongAnswer()
            Answer1.layer.backgroundColor = UIColor.red.cgColor
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            Answer1.isEnabled = false
        }
    }

    @IBAction func Answer2(_ sender: Any) {
        if Bool(Answer2Correct) == true {
            rightAnswer()
            Answer2.layer.backgroundColor = UIColor.green.cgColor
            Answer2.isEnabled = false
            Answer1.isEnabled = false
            Answer3.isEnabled = false
            Answer4.isEnabled = false
        } else {
            wrongAnswer()
            Answer2.layer.backgroundColor = UIColor.red.cgColor
            Answer2.isEnabled = false
        }
    }

    @IBAction func Answer3(_ sender: Any) {
        if Bool(Answer3Correct) == true {
            rightAnswer()
            Answer3.layer.backgroundColor = UIColor.green.cgColor
            Answer3.isEnabled = false
            Answer1.isEnabled = false
            Answer2.isEnabled = false
            Answer4.isEnabled = false
        } else {
            wrongAnswer()
            Answer3.layer.backgroundColor = UIColor.red.cgColor
            Answer3.isEnabled = false
        }
    }

    @IBAction func Answer4(_ sender: Any) {
        if Bool(Answer4Correct) == true {
            rightAnswer()
            Answer4.layer.backgroundColor = UIColor.green.cgColor
            Answer4.isEnabled = false
            Answer1.isEnabled = false
            Answer2.isEnabled = false
            Answer3.isEnabled = false
        } else {
            wrongAnswer()
            Answer4.layer.backgroundColor = UIColor.red.cgColor
            Answer4.isEnabled = false
        }
    }

    // Resets the colors and answers and generates another question
    @IBAction func NextQuestion(_ sender: Any) {
        Answer1.layer.backgroundColor = UIColor.white.cgColor
        Answer2.layer.backgroundColor = UIColor.white.cgColor
        Answer3.layer.backgroundColor = UIColor.white.cgColor
        Answer4.layer.backgroundColor = UIColor.white.cgColor
        NextQuestion.isHidden = true
        Answer1Correct = false
        Answer2Correct = false
        Answer3Correct = false
        Answer4Correct = false
        RandomQuestions()
```

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    }
}
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