```swift
//
//  MemoCardsViewModel.swift
//  MemoCards
//
//  Created by Дмитрий Карпов on 08/03/2019.
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//

import Foundation

protocol MemoCardsProtocol {
    var selectedImage: MemoCard { get set }
    func selectImage() -> String
    func getParameters() -> ParameterList
    func changeDirection()
}


class MemoCardsViewModel: MemoCardsProtocol {

    private var privateSelectedImage: MemoCard =
        MemoCard(keyNumber: "00", keyWord: "НоМерок",
         keyLetters: "НМ", fileName: "00 НМ НоМерок")

    //Структура основной игры: направление, первый и последний номер
     карточки.
    let mainGame: ParameterList!
    var currentGame: ParameterList!

    var selectedImage: MemoCard {
        get {
            return privateSelectedImage
        }
        set {
            if !newValue.keyNumber.isEmpty {
                privateSelectedImage = newValue
            }
        }
    }

    let memoCards: [MemoCard] = [
        MemoCard(keyNumber: "00", keyWord: "НоМерок",
         keyLetters: "НМ", fileName: "00 НМ НоМерок"),
        MemoCard(keyNumber: "01", keyWord: "ёЖ", keyLetters:
         "ГЖ", fileName: "01 ГЖ еЖ"),
```

```
MemoCard(keyNumber: "02", keyWord: "яД", keyLetters:
 "ДТ", fileName: "02 ДТ яД"),
MemoCard(keyNumber: "03", keyWord: "уХо",
 keyLetters: "КХ", fileName: "03 КХ уХо"),
MemoCard(keyNumber: "04", keyWord: "Чай",
 keyLetters: "ЧШ", fileName: "04 ЧШ Чай"),
MemoCard(keyNumber: "05", keyWord: "оБои",
 keyLetters: "БП", fileName: "05 БП оБои"),
MemoCard(keyNumber: "06", keyWord: "юЛф",
 keyLetters: "ШЛ", fileName: "06 ШЛ юЛа"),
MemoCard(keyNumber: "07", keyWord: "оСа",
 keyLetters: "СЗ", fileName: "07 ЗС оСа"),
MemoCard(keyNumber: "08", keyWord: "иВа",
 keyLetters: "ВФ", fileName: "08 ВФ иВа"),
MemoCard(keyNumber: "09", keyWord: "яйЦо",
 keyLetters: "РЦ", fileName: "09 РЦ яйЦо"),
MemoCard(keyNumber: "10", keyWord: "оГоНь",
 keyLetters: "ГЖ НМ", fileName: "10 НМ ГЖ оГоНь"),
MemoCard(keyNumber: "11", keyWord: "ГаГарин",
 keyLetters: "ГЖ ГЖ", fileName: "11 ГЖ ГЖ ГаГарин"),
MemoCard(keyNumber: "12", keyWord: "ГиТара",
 keyLetters: "ГЖ ДТ", fileName: "12 ГЖ ДТ ГиТара"),
MemoCard(keyNumber: "13", keyWord: "ГайКа",
 keyLetters: "ГЖ КХ", fileName: "13 ГЖ КХ ГайКа"),
MemoCard(keyNumber: "14", keyWord: "ЖуЧок",
 keyLetters: "ГЖ ЧЩ", fileName: "14 ГЖ ЧЩ ЖуЧок"),
MemoCard(keyNumber: "15", keyWord: "ГуБы",
 keyLetters: "ГЖ БП", fileName: "15 ГЖ БП ГуБы"),
MemoCard(keyNumber: "16", keyWord: "ГуаШь",
 keyLetters: "ГЖ ШЛ", fileName: "16 ГЖ ШЛ ГуаШь"),
MemoCard(keyNumber: "17", keyWord: "ГуСь",
 keyLetters: "ГЖ СЗ", fileName: "17 ГЖ СЗ ГуСь"),
MemoCard(keyNumber: "18", keyWord: "ГВоздь",
 keyLetters: "ГЖ ВФ", fileName: "18 ГЖ ВФ ГВоздь"),
MemoCard(keyNumber: "19", keyWord: "ГиРя",
 keyLetters: "ГЖ РЦ", fileName: "19 ГЖ РЦ ГиРя"),
MemoCard(keyNumber: "20", keyWord: "ДоМ",
 keyLetters: "ДТ НМ", fileName: "20 ДТ НМ ДоМ"),
MemoCard(keyNumber: "21", keyWord: "уТюГ",
 keyLetters: "ДТ ГЖ", fileName: "21 ДТ ГЖ уТюГ"),
MemoCard(keyNumber: "22", keyWord: "ДиоД",
 keyLetters: "ДТ ДТ", fileName: "22 ДТ ДТ ДиоД"),
MemoCard(keyNumber: "23", keyWord: "ДуХи",
 keyLetters: "ДТ КХ", fileName: "23 ДТ КХ ДуХи"),
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MemoCard(keyNumber: "24", keyWord: "ДиЧь",
 keyLetters: "ДТ ЧШ", fileName: "24 ДТ ЧШ ДиЧь"),
MemoCard(keyNumber: "25", keyWord: "ТоПор",
 keyLetters: "ДТ БП", fileName: "25 ДТ БП ТоПор"),
MemoCard(keyNumber: "26", keyWord: "ДуШ",
 keyLetters: "ДТ ШЛ", fileName: "26 ДТ ШЛ ДуШ"),
MemoCard(keyNumber: "27", keyWord: "ТуЗ",
 keyLetters: "ДТ СЗ", fileName: "27 ДТ СЗ ТуЗ"),
MemoCard(keyNumber: "28", keyWord: "уДаВ",
 keyLetters: "ДТ ВФ", fileName: "28 ДТ ВФ уДаВ"),
MemoCard(keyNumber: "29", keyWord: "ТеРка",
 keyLetters: "ДТ РЦ", fileName: "29 ДТ РЦ ТеРка"),
MemoCard(keyNumber: "30", keyWord: "иКоНа",
 keyLetters: "КХ НМ", fileName: "30 КХ НМ иКоНа"),
MemoCard(keyNumber: "31", keyWord: "КоЖа",
 keyLetters: "КХ ГЖ", fileName: "31 КХ ГЖ КоЖа"),
MemoCard(keyNumber: "32", keyWord: "КиТ",
 keyLetters: "КХ ДТ", fileName: "32 КХ ДТ КиТ"),
MemoCard(keyNumber: "33", keyWord: "КеКс",
 keyLetters: "КХ КХ", fileName: "33 КХ КХ КеКс"),
MemoCard(keyNumber: "34", keyWord: "КоЧат",
 keyLetters: "КХ ЧЩ", fileName: "34 КХ ЧЩ КоЧан"),
MemoCard(keyNumber: "35", keyWord: "КуБ",
 keyLetters: "КХ БП", fileName: "35 КХ ПБ КуБ"),
MemoCard(keyNumber: "36", keyWord: "КЛей",
 keyLetters: "КХ ШЛ", fileName: "36 КХ ШЛ КЛей"),
MemoCard(keyNumber: "37", keyWord: "КоСф",
 keyLetters: "КХ СЗ", fileName: "37 КХ СЗ КоСа"),
MemoCard(keyNumber: "38", keyWord: "ХВоя",
 keyLetters: "КХ ВФ", fileName: "38 КХ ВФ ХВоя"),
MemoCard(keyNumber: "39", keyWord: "яКоРь",
 keyLetters: "КХ РЦ", fileName: "39 КХ РЦ яКоРь"),
MemoCard(keyNumber: "40", keyWord: "ЧайНик",
 keyLetters: "ЧЩ НМ", fileName: "40 ЧЩ НМ ЧайНик"),
MemoCard(keyNumber: "41", keyWord: "ЧуГуток",
 keyLetters: "ЧЩ ГЖ", fileName: "41 ЧЩ ГЖ ЧуГунок"),
MemoCard(keyNumber: "42", keyWord: "ЩиТ",
 keyLetters: "ЧЩ ДТ", fileName: "42 ЧЩ ДТ ЩиТ"),
MemoCard(keyNumber: "43", keyWord: "оЧКи",
 keyLetters: "ЧЩ КХ", fileName: "43 ЧЩ КХ оЧКи"),
MemoCard(keyNumber: "44", keyWord: "ЧуЧело",
 keyLetters: "ЧЩ ЧЩ", fileName: "44 ЧЩ ЧЩ ЧуЧело"),
MemoCard(keyNumber: "45", keyWord: "ЧиП",
 keyLetters: "ЧЩ БП", fileName: "45 ЧЩ БП ЧиП"),
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        MemoCard(keyNumber: "46", keyWord: "ЧаШка",
         keyLetters: "ЧЩ ШЛ", fileName: "46 ЧЩ ШЛ ЧаШка"),
        MemoCard(keyNumber: "47", keyWord: "ЧаСы",
         keyLetters: "ЧЩ СЗ", fileName: "47 ЧЩ СЗ ЧаСы"),
        MemoCard(keyNumber: "48", keyWord: "ЩаВель",
         keyLetters: "ЧЩ ВФ", fileName: "48 ЧЩ ВФ ЩаВель"),
        MemoCard(keyNumber: "49", keyWord: "ЧеРеп",
         keyLetters: "ЧЩ РЦ", fileName: "49 ЧЩ РЦ ЧеРеп"),
        MemoCard(keyNumber: "50", keyWord: "БаяН",
         keyLetters: "БП НМ", fileName: "50 БП НМ БаяН"),
        MemoCard(keyNumber: "51", keyWord: "ПоГоны",
         keyLetters: "БП ГЖ", fileName: "51 БП ГЖ ПоГоны"),
        MemoCard(keyNumber: "52", keyWord: "БиТа",
         keyLetters: "БП ДТ", fileName: "52 БП ДТ БиТа"),
        MemoCard(keyNumber: "53", keyWord: "ПауК",
         keyLetters: "БП КХ", fileName: "53 БП КХ ПауК"),
        MemoCard(keyNumber: "54", keyWord: "ПеЧь",
         keyLetters: "БП ЧЩ", fileName: "54 БП ЧЩ ПеЧь"),
        MemoCard(keyNumber: "55", keyWord: "ПюПитр",
         keyLetters: "БП БП", fileName: "55 БП БП ПюПитр"),
        MemoCard(keyNumber: "56", keyWord: "ПиЛа",
         keyLetters: "БП ШЛ", fileName: "56 БП ШЛ ПиЛа"),
        MemoCard(keyNumber: "57", keyWord: "БуСы",
         keyLetters: "БП СЗ", fileName: "57 БП ЗС БуСы"),
        MemoCard(keyNumber: "58", keyWord: "ПиВо",
         keyLetters: "БП ВФ", fileName: "58 БП ВФ ПиВо"),
        MemoCard(keyNumber: "59", keyWord: "ПеРо",
         keyLetters: "БП РЦ", fileName: "59 БП РЦ ПеРо"),
        MemoCard(keyNumber: "60", keyWord: "ШиНа",
         keyLetters: "ШЛ НМ", fileName: "60 ШЛ НМ ШиНа"),
        MemoCard(keyNumber: "61", keyWord: "ЛыЖи",
         keyLetters: "ШЛ ГЖ", fileName: "61 ШЛ ГЖ ЛыЖи"),
        MemoCard(keyNumber: "62", keyWord: "ЛаДья",
         keyLetters: "ШЛ ДТ", fileName: "62 ШЛ ДТ ЛаДья")]

    init() {

        mainGame = ParameterList(direction:
         Directions.forward, firstNumber: 0, finishNumber:
         memoCards.count - 1)
        currentGame = mainGame
    }

    func getParameters() -> ParameterList {
        return currentGame
```

```swift
    }

    func changeDirection() {
        var newGame = currentGame
        if newGame?.direction == .forward {
            newGame?.direction = .backward
        } else if newGame?.direction == .backward {
            newGame?.direction = .random
        } else {
            newGame?.direction = .forward
        }

        currentGame = newGame
    }

//    func numberOrImageLayer() {
//        var newGame =
//
//    }

    func selectImage() -> String {

        let imageName: String = selectedImage.fileName

        self.selectedImage =
         self.memoCards.randomElement() ??
         MemoCard(keyNumber: "00", keyWord: "НоМерок",
         keyLetters: "НМ", fileName: "00 НМ НоМерок")

        var selectedPicture = self.selectedImage.fileName


        while selectedPicture == imageName {
            self.selectedImage =
             self.memoCards.randomElement() ??
             MemoCard(keyNumber: "00", keyWord: "НоМерок",
             keyLetters: "НМ", fileName: "00 НМ НоМерок")
            selectedPicture = self.selectedImage.fileName

        }
        return selectedPicture
        //
        // Возвращает картинку выбранной карточки
    }
```

}