ГУАП

КАФЕДРА № 43

ОТЧЕТ   
ЗАЩИЩЕН С ОЦЕНКОЙ

ПРЕПОДАВАТЕЛЬ

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| ОТЧЕТ О ЛАБОРАТОРНОЙ РАБОТЕ №5 |
| «Организация навигации в многоэкранном приложении» |
| по курсу: Программирование мобильных устройств |
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РАБОТУ ВЫПОЛНИЛ

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| СТУДЕНТ ГР. № | 4831 |  | 12.02.2021 |  | К.А.Корнющенков |
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Санкт-Петербург 2020

1. **Цель работы**

Получение навыков организации навигации в многоэкранных мобильных приложениях

1. **Задания**

Организовать навигацию между несколькими Activity (не менее 3-x) при помощи обработки нажатий на интерфейсные элементы, выполнить сборку, отладку и запуск приложения. Навигация должна позволять возможность перехода из любой экранной формы (Activity) в любую другую, возможны различные способы организации (переход из основной и обратно, прямой переход из каждой в каждую, циклический переход по цепочке) Описать результаты в отчете (в т.ч. исх. тексты java и xml для activity).

1. **Исходный код**

Код навигации

class StartViewController: UIViewController {

override func viewDidLoad() {

super.viewDidLoad()

}

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

present(SecondViewController(), animated: true, completion: nil)

}

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

present(LighteViewController(), animated: true, completion: nil)

}

}

Код интерфейса

<?xml version="1.0" encoding="UTF-8"?>

<document type="com.apple.InterfaceBuilder3.CocoaTouch.Storyboard.XIB" version="3.0" toolsVersion="17701" targetRuntime="iOS.CocoaTouch" propertyAccessControl="none" useAutolayout="YES" useTraitCollections="YES" useSafeAreas="YES" colorMatched="YES" initialViewController="BYZ-38-t0r">

<device id="retina6\_1" orientation="portrait" appearance="light"/>

<dependencies>

<plugIn identifier="com.apple.InterfaceBuilder.IBCocoaTouchPlugin" version="17703"/>

<capability name="Named colors" minToolsVersion="9.0"/>

<capability name="Safe area layout guides" minToolsVersion="9.0"/>

<capability name="System colors in document resources" minToolsVersion="11.0"/>

<capability name="documents saved in the Xcode 8 format" minToolsVersion="8.0"/>

</dependencies>

<scenes>

<!--Start View Controller-->

<scene sceneID="tne-QT-ifu">

<objects>

<viewController id="BYZ-38-t0r" customClass="StartViewController" customModule="Laba" customModuleProvider="target" sceneMemberID="viewController">

<view key="view" contentMode="scaleToFill" id="8bC-Xf-vdC">

<rect key="frame" x="0.0" y="0.0" width="414" height="896"/>

<autoresizingMask key="autoresizingMask" widthSizable="YES" heightSizable="YES"/>

<subviews>

<label opaque="NO" userInteractionEnabled="NO" contentMode="left" horizontalHuggingPriority="251" verticalHuggingPriority="251" text="Hello world" textAlignment="natural" lineBreakMode="tailTruncation" baselineAdjustment="alignBaselines" adjustsFontSizeToFit="NO" translatesAutoresizingMaskIntoConstraints="NO" id="LJk-3K-tP3">

<rect key="frame" x="164.5" y="437.5" width="85.5" height="21"/>

<fontDescription key="fontDescription" type="system" pointSize="17"/>

<nil key="textColor"/>

<nil key="highlightedColor"/>

</label>

<imageView clipsSubviews="YES" userInteractionEnabled="NO" contentMode="scaleAspectFit" horizontalHuggingPriority="251" verticalHuggingPriority="251" fixedFrame="YES" image="pencil" catalog="system" translatesAutoresizingMaskIntoConstraints="NO" id="IeR-Gc-cDi">

<rect key="frame" x="87" y="278.5" width="240" height="128"/>

<autoresizingMask key="autoresizingMask" flexibleMaxX="YES" flexibleMaxY="YES"/>

</imageView>

<button opaque="NO" contentMode="scaleToFill" fixedFrame="YES" contentHorizontalAlignment="center" contentVerticalAlignment="center" buttonType="system" lineBreakMode="middleTruncation" translatesAutoresizingMaskIntoConstraints="NO" id="M7X-Wh-Kmj">

<rect key="frame" x="53" y="590" width="316" height="34"/>

<autoresizingMask key="autoresizingMask" flexibleMaxX="YES" flexibleMaxY="YES"/>

<color key="backgroundColor" name="AccentColor"/>

<fontDescription key="fontDescription" name="HiraginoSans-W6" family="Hiragino Sans" pointSize="22"/>

<state key="normal" title="Красивая кнопка">

<color key="titleColor" systemColor="labelColor"/>

</state>

<connections>

<segue destination="aQA-W1-WfR" kind="show" id="NBC-L6-6h1"/>

</connections>

</button>

<button opaque="NO" contentMode="scaleToFill" fixedFrame="YES" contentHorizontalAlignment="center" contentVerticalAlignment="center" buttonType="system" lineBreakMode="middleTruncation" translatesAutoresizingMaskIntoConstraints="NO" id="QaH-eG-gKf">

<rect key="frame" x="91" y="768" width="247" height="47"/>

<autoresizingMask key="autoresizingMask" flexibleMaxX="YES" flexibleMaxY="YES"/>

<color key="backgroundColor" red="0.41888197492875501" green="0.18273269779175383" blue="1" alpha="0.51899169091464714" colorSpace="custom" customColorSpace="sRGB"/>

<fontDescription key="fontDescription" type="system" pointSize="29"/>

<state key="normal" title="Красивая кнопка 2">

<color key="titleColor" red="0.0" green="0.0" blue="0.0" alpha="1" colorSpace="custom" customColorSpace="sRGB"/>

</state>

<connections>

<segue destination="BZq-R2-xqN" kind="show" id="47n-iM-5zD"/>

</connections>

</button>

<label opaque="NO" userInteractionEnabled="NO" contentMode="left" horizontalHuggingPriority="251" verticalHuggingPriority="251" fixedFrame="YES" text="Экран 1" textAlignment="natural" lineBreakMode="tailTruncation" baselineAdjustment="alignBaselines" adjustsFontSizeToFit="NO" translatesAutoresizingMaskIntoConstraints="NO" id="I6h-du-0sH">

<rect key="frame" x="144" y="135" width="141" height="48"/>

<autoresizingMask key="autoresizingMask" flexibleMaxX="YES" flexibleMaxY="YES"/>

<fontDescription key="fontDescription" type="system" pointSize="40"/>

<nil key="textColor"/>

<nil key="highlightedColor"/>

</label>

</subviews>

<viewLayoutGuide key="safeArea" id="6Tk-OE-BBY"/>

<color key="backgroundColor" systemColor="systemBackgroundColor"/>

<constraints>

<constraint firstItem="LJk-3K-tP3" firstAttribute="centerX" secondItem="8bC-Xf-vdC" secondAttribute="centerX" id="J8E-Ei-LQN"/>

<constraint firstItem="LJk-3K-tP3" firstAttribute="centerY" secondItem="8bC-Xf-vdC" secondAttribute="centerY" id="i37-zE-oU8"/>

</constraints>

</view>

</viewController>

<placeholder placeholderIdentifier="IBFirstResponder" id="dkx-z0-nzr" sceneMemberID="firstResponder"/>

</objects>

<point key="canvasLocation" x="114" y="70"/>

</scene>

<!--Lighte View Controller-->

<scene sceneID="eiM-RL-tbJ">

<objects>

<viewController id="BZq-R2-xqN" customClass="LighteViewController" customModule="Laba" customModuleProvider="target" sceneMemberID="viewController">

<view key="view" contentMode="scaleToFill" id="dyc-QW-8zp">

<rect key="frame" x="0.0" y="0.0" width="414" height="842"/>

<autoresizingMask key="autoresizingMask" widthSizable="YES" heightSizable="YES"/>

<subviews>

<label opaque="NO" userInteractionEnabled="NO" contentMode="left" horizontalHuggingPriority="251" verticalHuggingPriority="251" text="Тут будет фонарик " textAlignment="center" lineBreakMode="tailTruncation" baselineAdjustment="alignBaselines" adjustsFontSizeToFit="NO" translatesAutoresizingMaskIntoConstraints="NO" id="fCs-Ji-CG8">

<rect key="frame" x="16" y="16" width="382" height="35"/>

<fontDescription key="fontDescription" type="system" pointSize="29"/>

<nil key="textColor"/>

<nil key="highlightedColor"/>

</label>

<switch opaque="NO" contentMode="scaleToFill" horizontalHuggingPriority="750" verticalHuggingPriority="750" contentHorizontalAlignment="center" contentVerticalAlignment="center" on="YES" translatesAutoresizingMaskIntoConstraints="NO" id="die-p8-97l">

<rect key="frame" x="182.5" y="151" width="51" height="31"/>

</switch>

</subviews>

<viewLayoutGuide key="safeArea" id="zyR-Dj-iAF"/>

<color key="backgroundColor" systemColor="systemBackgroundColor"/>

<constraints>

<constraint firstItem="zyR-Dj-iAF" firstAttribute="trailing" secondItem="fCs-Ji-CG8" secondAttribute="trailing" constant="16" id="Eja-BA-zfr"/>

<constraint firstItem="die-p8-97l" firstAttribute="centerX" secondItem="dyc-QW-8zp" secondAttribute="centerX" id="MIm-eH-fxs"/>

<constraint firstItem="fCs-Ji-CG8" firstAttribute="leading" secondItem="zyR-Dj-iAF" secondAttribute="leading" constant="16" id="Yir-gE-pm0"/>

<constraint firstItem="fCs-Ji-CG8" firstAttribute="top" secondItem="zyR-Dj-iAF" secondAttribute="top" constant="16" id="YwI-7C-C7F"/>

<constraint firstItem="die-p8-97l" firstAttribute="top" secondItem="fCs-Ji-CG8" secondAttribute="bottom" constant="100" id="ca9-sD-mLx"/>

</constraints>

</view>

<navigationItem key="navigationItem" id="189-j1-HBI"/>

<connections>

<outlet property="mySwitch" destination="die-p8-97l" id="3mM-Iv-NsE"/>

</connections>

</viewController>

<placeholder placeholderIdentifier="IBFirstResponder" id="1qo-QZ-YFe" userLabel="First Responder" customClass="UIResponder" sceneMemberID="firstResponder"/>

</objects>

<point key="canvasLocation" x="113" y="783"/>

</scene>

<!--Second View Controller-->

<scene sceneID="yqK-R0-8nA">

<objects>

<viewController id="aQA-W1-WfR" customClass="SecondViewController" customModule="Laba" customModuleProvider="target" sceneMemberID="viewController">

<view key="view" contentMode="scaleToFill" id="2ki-7X-jIZ">

<rect key="frame" x="0.0" y="0.0" width="414" height="842"/>

<autoresizingMask key="autoresizingMask" widthSizable="YES" heightSizable="YES"/>

<subviews>

<slider opaque="NO" contentMode="scaleToFill" contentHorizontalAlignment="center" contentVerticalAlignment="center" value="0.5" minValue="0.0" maxValue="1" translatesAutoresizingMaskIntoConstraints="NO" id="So9-Yl-gRq">

<rect key="frame" x="51" y="584" width="312" height="31"/>

</slider>

<segmentedControl opaque="NO" contentMode="scaleToFill" contentHorizontalAlignment="left" contentVerticalAlignment="top" segmentControlStyle="plain" selectedSegmentIndex="0" translatesAutoresizingMaskIntoConstraints="NO" id="34l-Dk-fiv">

<rect key="frame" x="141.5" y="166" width="131" height="32"/>

<segments>

<segment title="First"/>

<segment title="Second"/>

</segments>

</segmentedControl>

<label opaque="NO" userInteractionEnabled="NO" contentMode="left" horizontalHuggingPriority="251" verticalHuggingPriority="251" text="Экран 2" textAlignment="natural" lineBreakMode="tailTruncation" baselineAdjustment="alignBaselines" adjustsFontSizeToFit="NO" translatesAutoresizingMaskIntoConstraints="NO" id="fPv-nJ-lLl">

<rect key="frame" x="134.5" y="39" width="145" height="48"/>

<fontDescription key="fontDescription" type="system" pointSize="40"/>

<nil key="textColor"/>

<nil key="highlightedColor"/>

</label>

</subviews>

<viewLayoutGuide key="safeArea" id="GoZ-sC-oyA"/>

<color key="backgroundColor" systemColor="systemBackgroundColor"/>

<constraints>

<constraint firstItem="34l-Dk-fiv" firstAttribute="top" secondItem="fPv-nJ-lLl" secondAttribute="bottom" constant="79" id="3PR-DG-Qax"/>

<constraint firstItem="34l-Dk-fiv" firstAttribute="centerX" secondItem="2ki-7X-jIZ" secondAttribute="centerX" id="8L8-h4-s2H"/>

<constraint firstItem="So9-Yl-gRq" firstAttribute="centerX" secondItem="2ki-7X-jIZ" secondAttribute="centerX" id="Bgx-0k-03m"/>

<constraint firstItem="So9-Yl-gRq" firstAttribute="leading" secondItem="GoZ-sC-oyA" secondAttribute="leading" constant="53" id="fOC-gf-LJb"/>

<constraint firstItem="GoZ-sC-oyA" firstAttribute="bottom" secondItem="So9-Yl-gRq" secondAttribute="bottom" constant="194" id="kHm-uM-FTg"/>

<constraint firstItem="fPv-nJ-lLl" firstAttribute="top" secondItem="GoZ-sC-oyA" secondAttribute="top" constant="39" id="rFJ-7C-35u"/>

<constraint firstItem="fPv-nJ-lLl" firstAttribute="centerX" secondItem="2ki-7X-jIZ" secondAttribute="centerX" id="x2G-hw-YPj"/>

</constraints>

</view>

<navigationItem key="navigationItem" id="ddX-B2-GpX"/>

</viewController>

<placeholder placeholderIdentifier="IBFirstResponder" id="M0V-Fk-Rc1" userLabel="First Responder" customClass="UIResponder" sceneMemberID="firstResponder"/>

</objects>

<point key="canvasLocation" x="1124.6376811594205" y="76.339285714285708"/>

</scene>

</scenes>

<resources>

<image name="pencil" catalog="system" width="128" height="113"/>

<namedColor name="AccentColor">

<color red="0.0" green="0.46000000000000002" blue="0.89000000000000001" alpha="1" colorSpace="custom" customColorSpace="sRGB"/>

</namedColor>

<systemColor name="labelColor">

<color white="0.0" alpha="1" colorSpace="custom" customColorSpace="genericGamma22GrayColorSpace"/>

</systemColor>

<systemColor name="systemBackgroundColor">

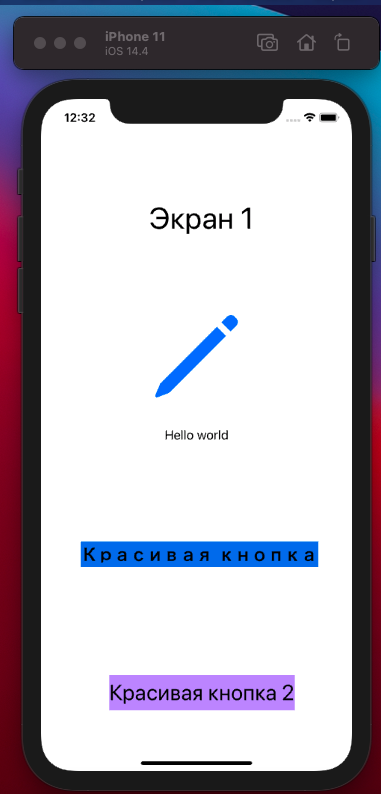
<color white="1" alpha="1" colorSpace="custom" customColorSpace="genericGamma22GrayColorSpace"/>

</systemColor>

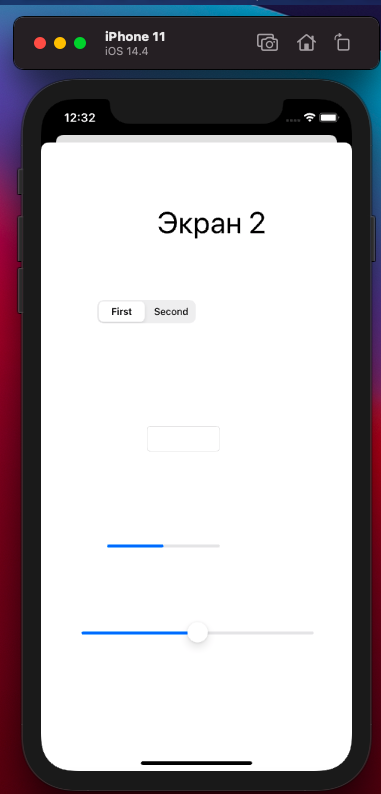
</resources>

</document>

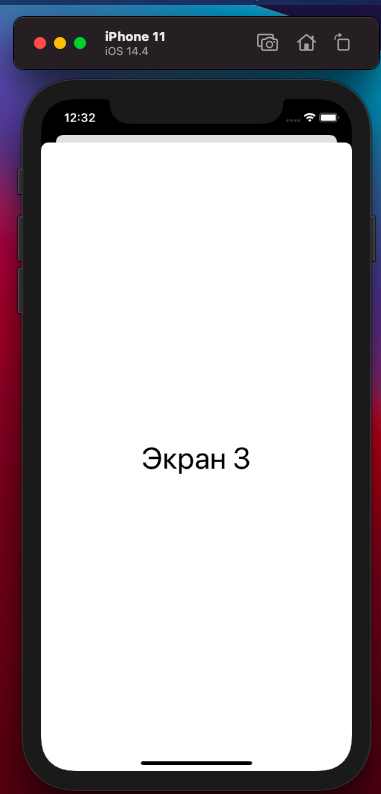
1. **Результаты работы программы**

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Стартовый экран

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Экран 2 – открывается при нажатии на кнопку на стартовом экране



Экран 3 – открывается при нажатии на кнопку на стартовом экране

1. **Вывод**

В ходе выполнения лабораторной работы были получены навыки навигации между экранами