

Native Apps

Þróunarferli í iOS og Android frá A-Ö

1. Hönnun & viðmót

2. iOS - Objective C

3. Android SDK - Java

4. Bakendi

5. Prófanir

Hönnun & viðmót

Hvernig er gott notendaviðmót í mobile?

**Láta hönnuði sjá
um hönnun!**

**Við þurfum að
skilja „mobile“**

Hvar?
er stundum
mikilvægara en
hver?

3-5 mínútur

Einfalt

App ekki vefur

Hvað skiptir mestu máli?

Fókus!

Flatarmál

iPhone 5

1136 px

640 px

iPhone 4

960 px

640 px

iPhone 3

480 px

320 px

xhdpi (720 x 1280)

Android

qhdp (540 x 960)

hdp (480 x 800)

mdp (320 x 480)

ldp
(240 x 320)

**Gerum ráð fyrir
feitum puttum!**

Panta!



HEIMSENDING



Staðir Um Domino's Póstlisti

2345

Panta!



Pizzu Vaktin

Fylgstu með pizzunni þinni alveg frá
þöntun og þar til hún er tilbúin!

Sláðu inn símanúmerið þitt

Vakta

No Service 20:41

Sótt eða Sent?



Velkomin(n) á
Domino's Pizza
58-12345

SÆKJA

HEIMSENDING



Heim



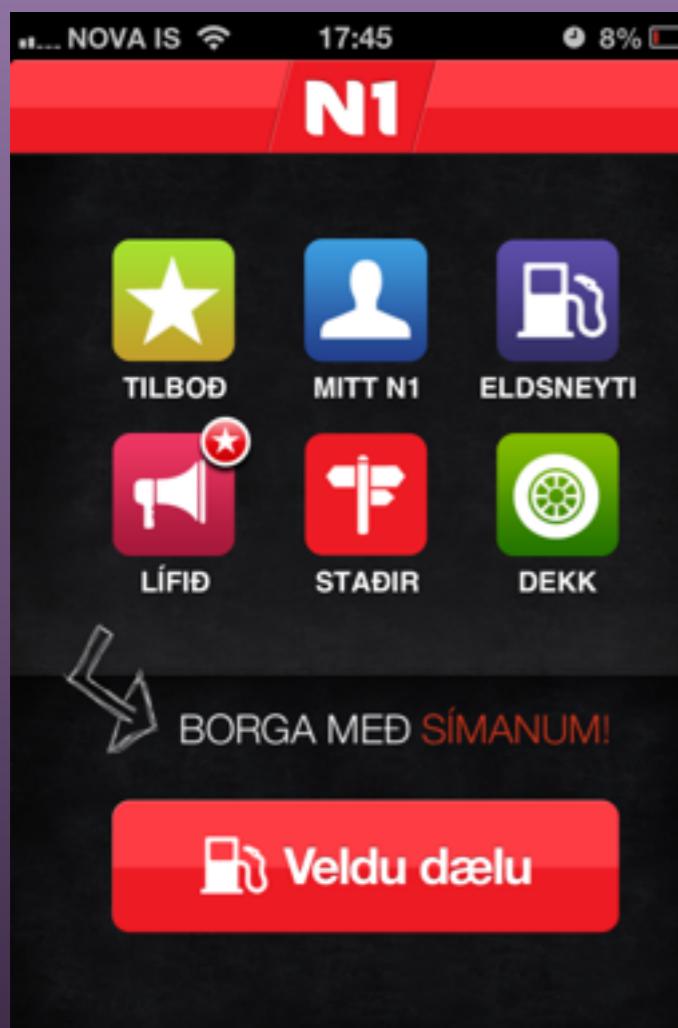
Pizzavaktin



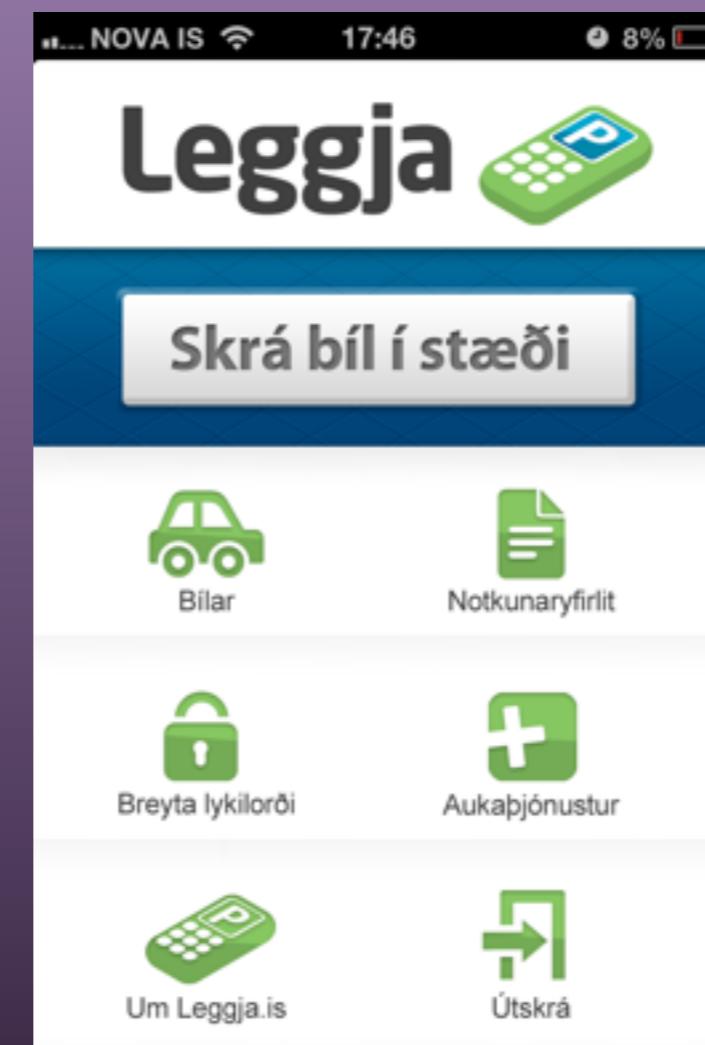
Staðir

Death of the dashboard!

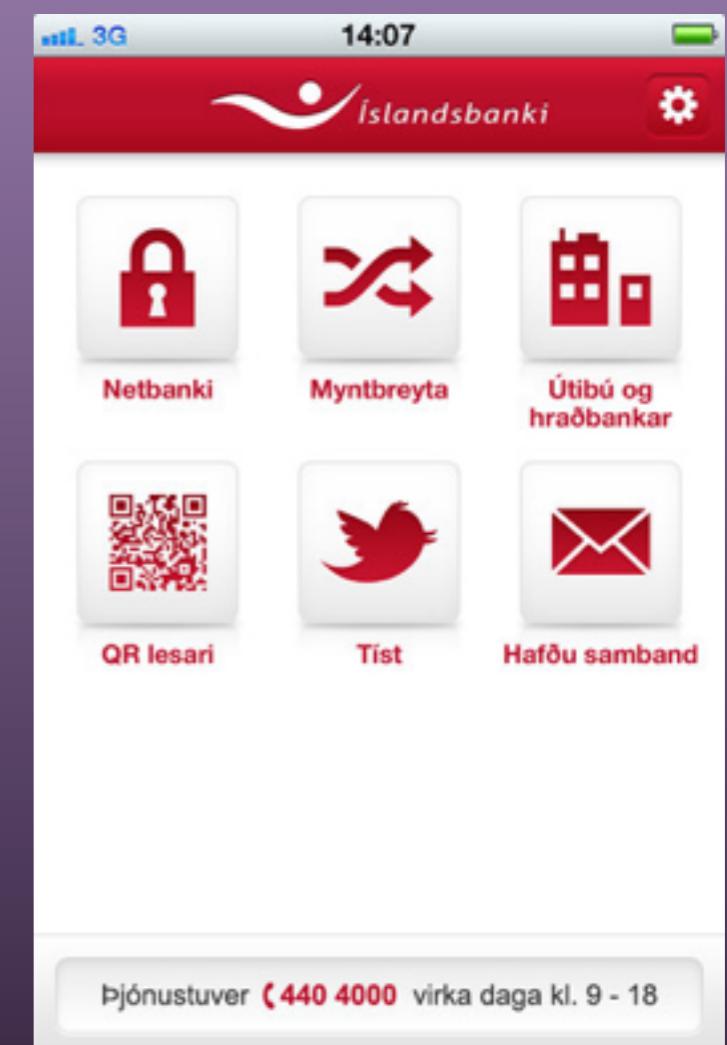
2011-2012



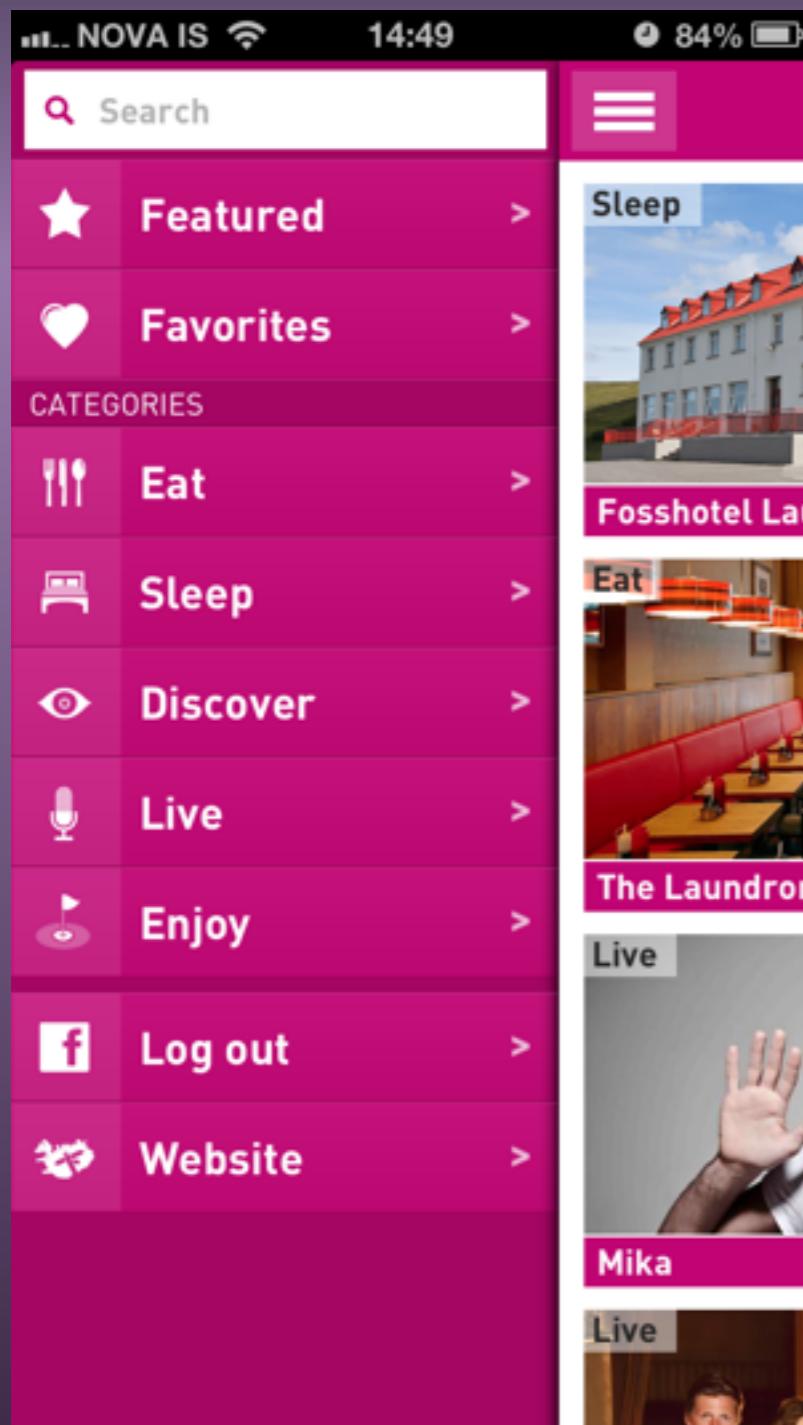
N1



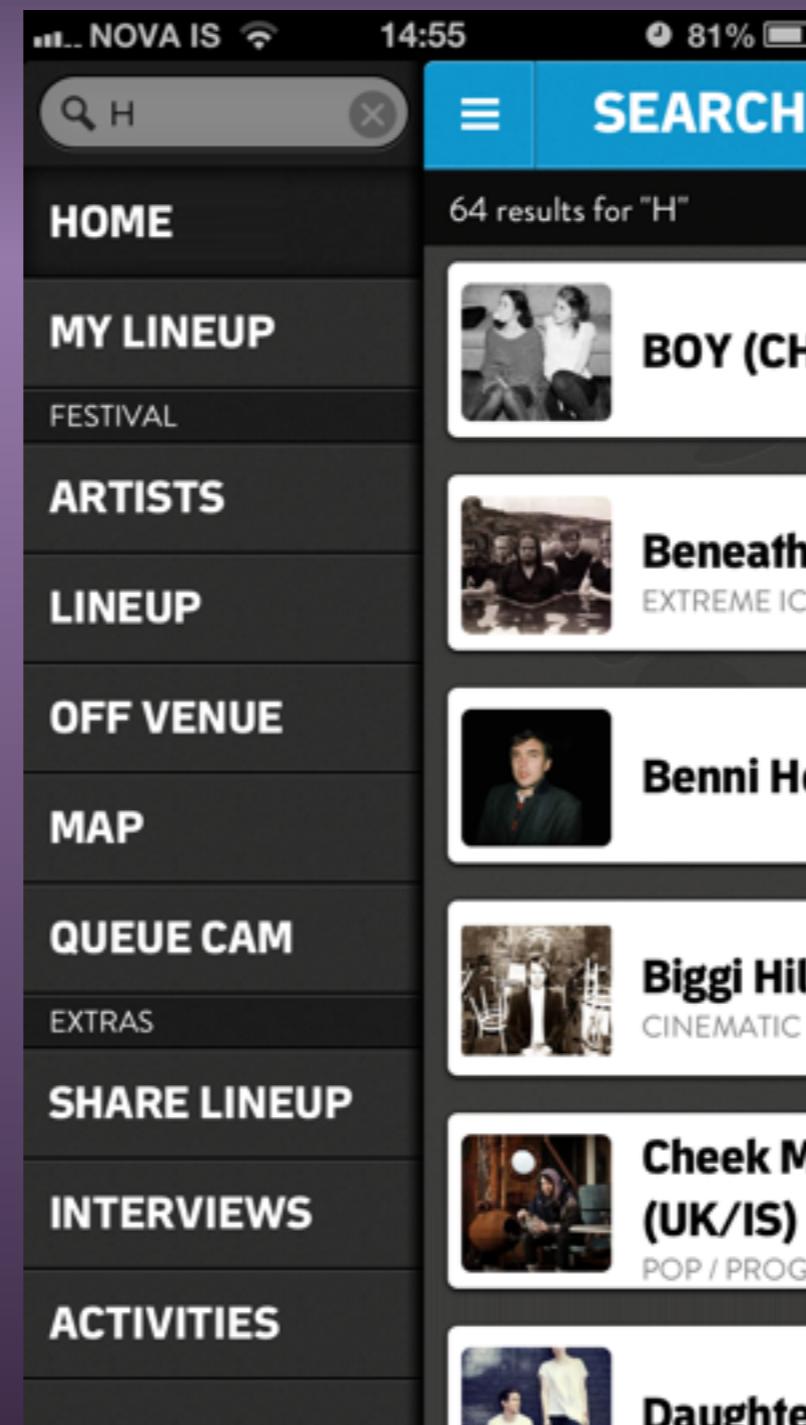
Leggja



Íslandsbanki



Be Iceland



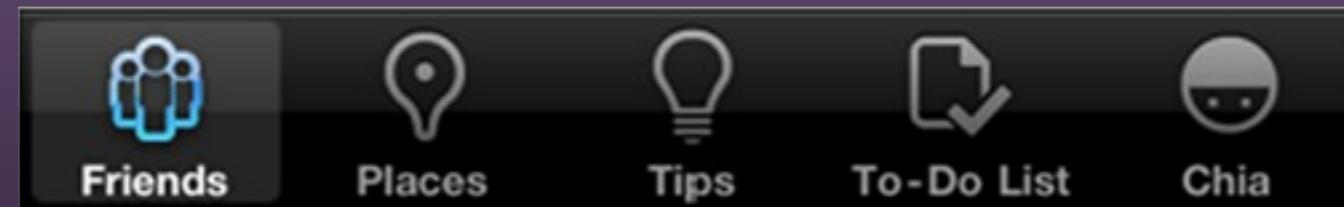
Airwaves



Facebook

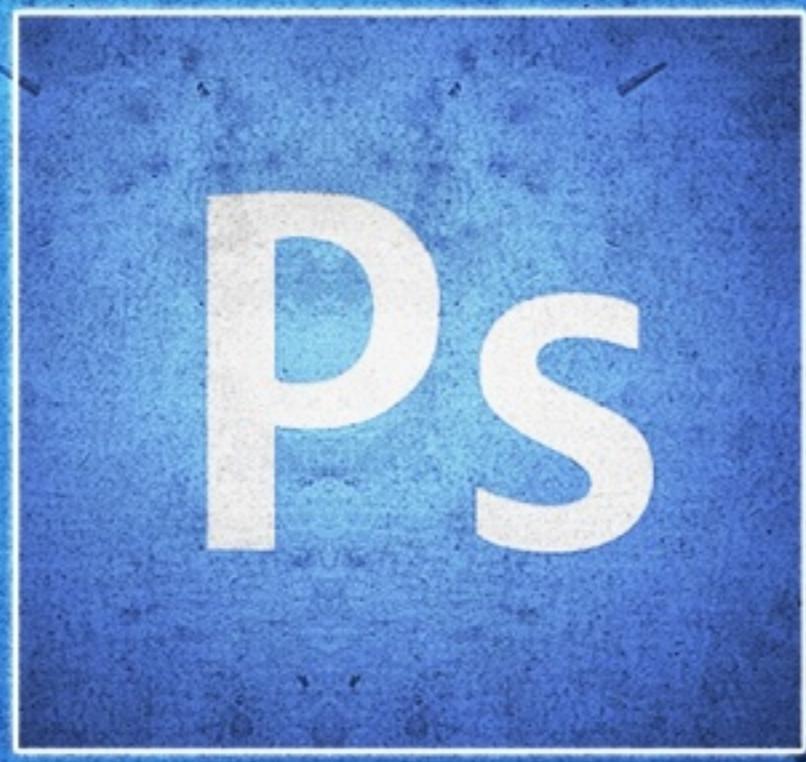
Death of the tabbar?

2013

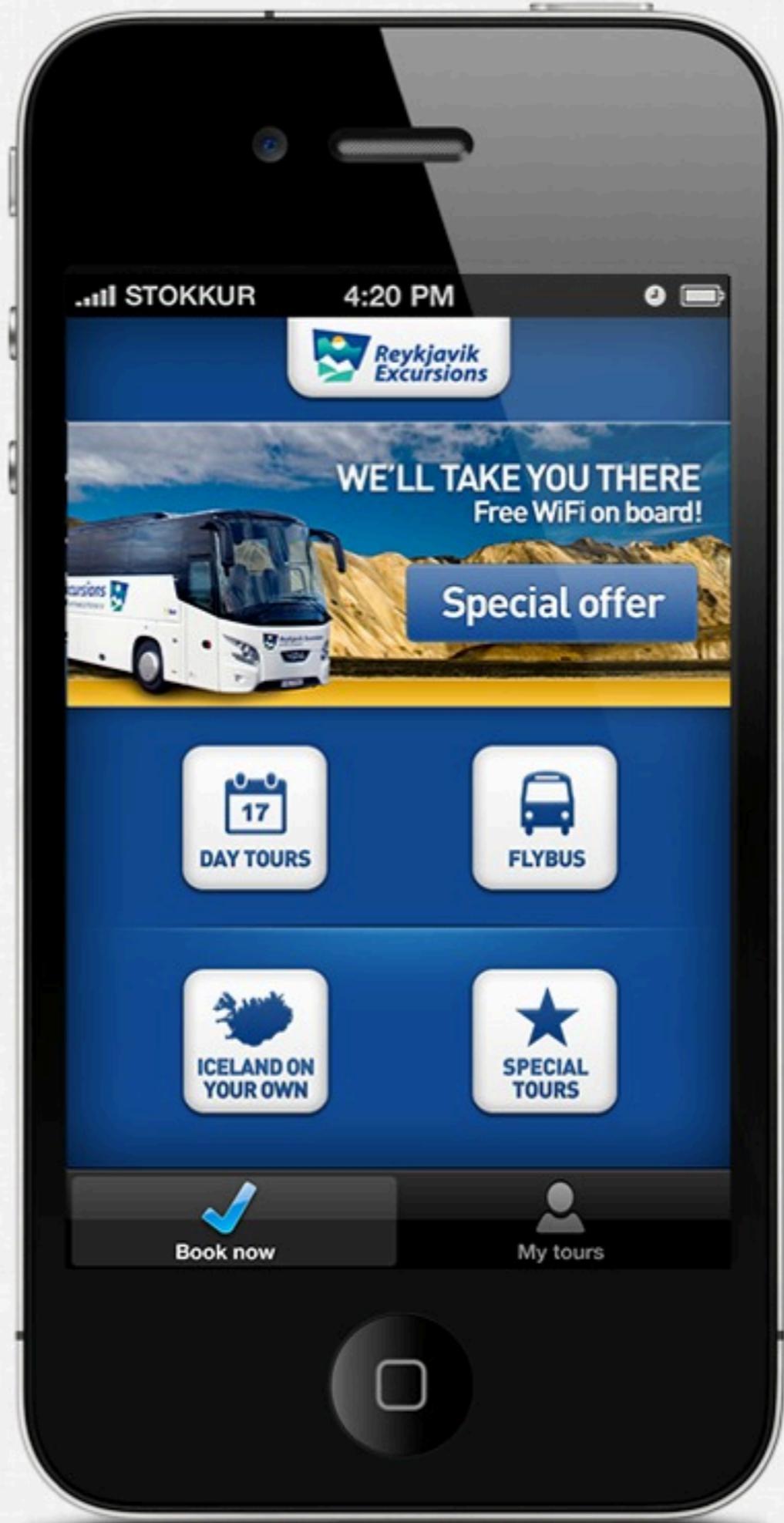


TÓL





Photoshop
Cs6°



iOS Objective C

**Forritarar burfa
að læra „smá“ á
Photoshop!**

Ps Br Mo 100% □ Auto-Select: Layer Show Transform Controls

Front.psd @ 100% (RGB/8#) *

STOKKUR 4:20 PM

INNOVA

Stærsti skemmtistaður i heimi!

Tónlist

2 fyrir 1

Fyllt'ann

Stóllinn

HISTORY

- edit slice options
- New Slice
- Edit Slice Options
- Edit Slice Options
- Drag Slice
- Drag Slice
- Drag Slice
- New Slice
- New Slice
- Edit Slice Options
- Edit Slice Options
- New Slice

LAYER COMPS

Last Document State

CHARA

Helvetica

IT

IT

IT

IT

PARAG

LAYERS CHANNELS PATHS

Normal Opacity: 100%

Lock: Fill: 100%

Layer 1

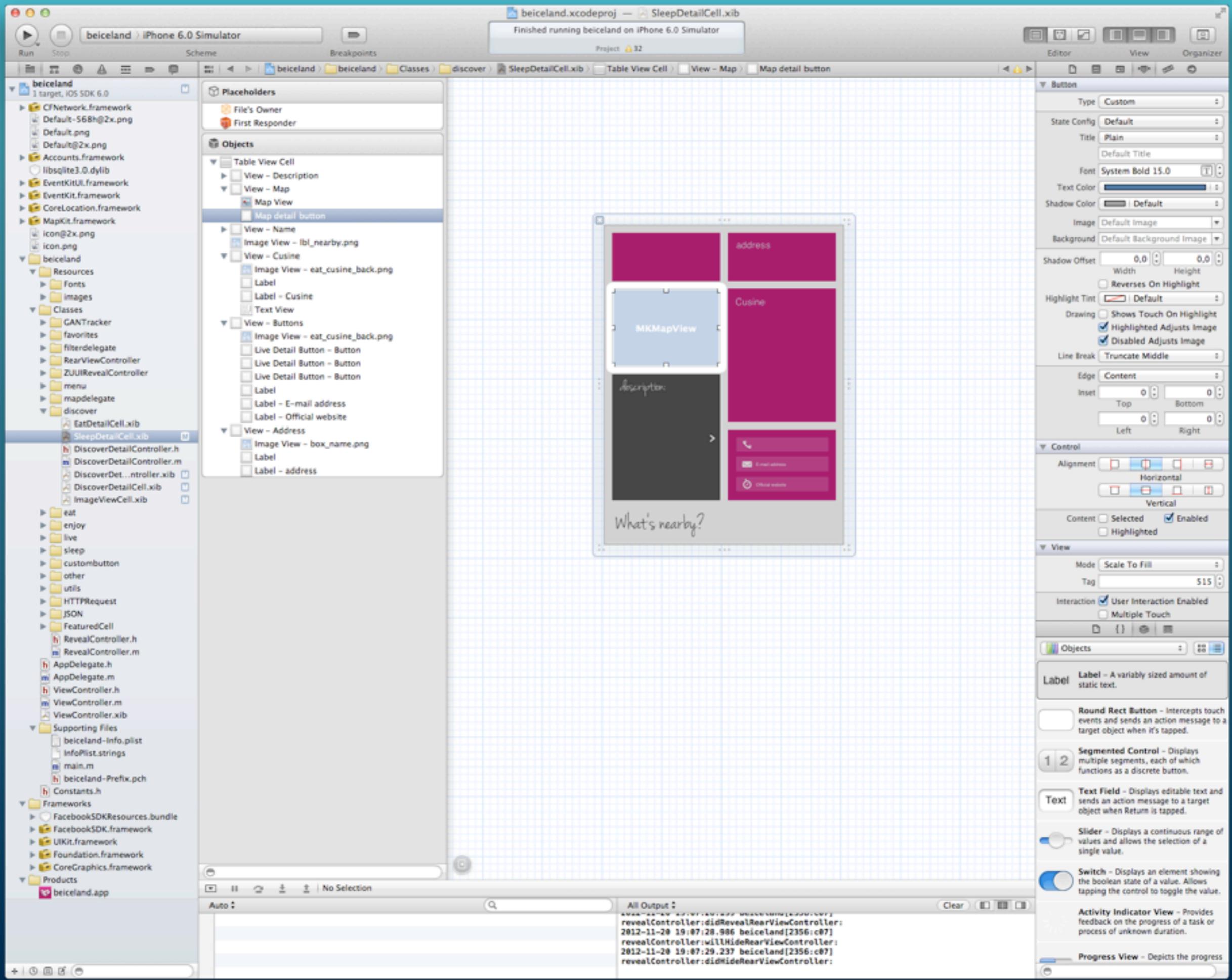
front

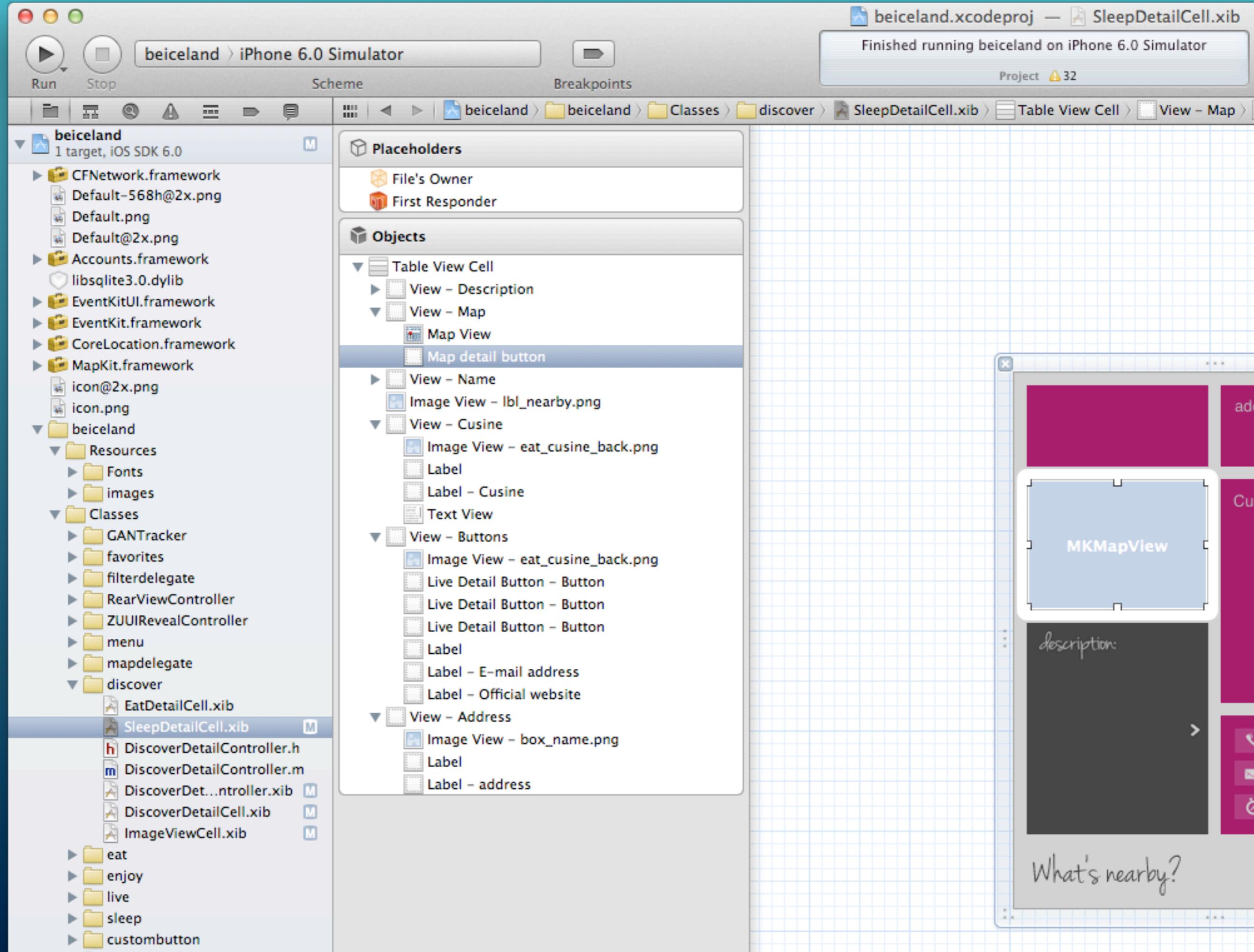
menu

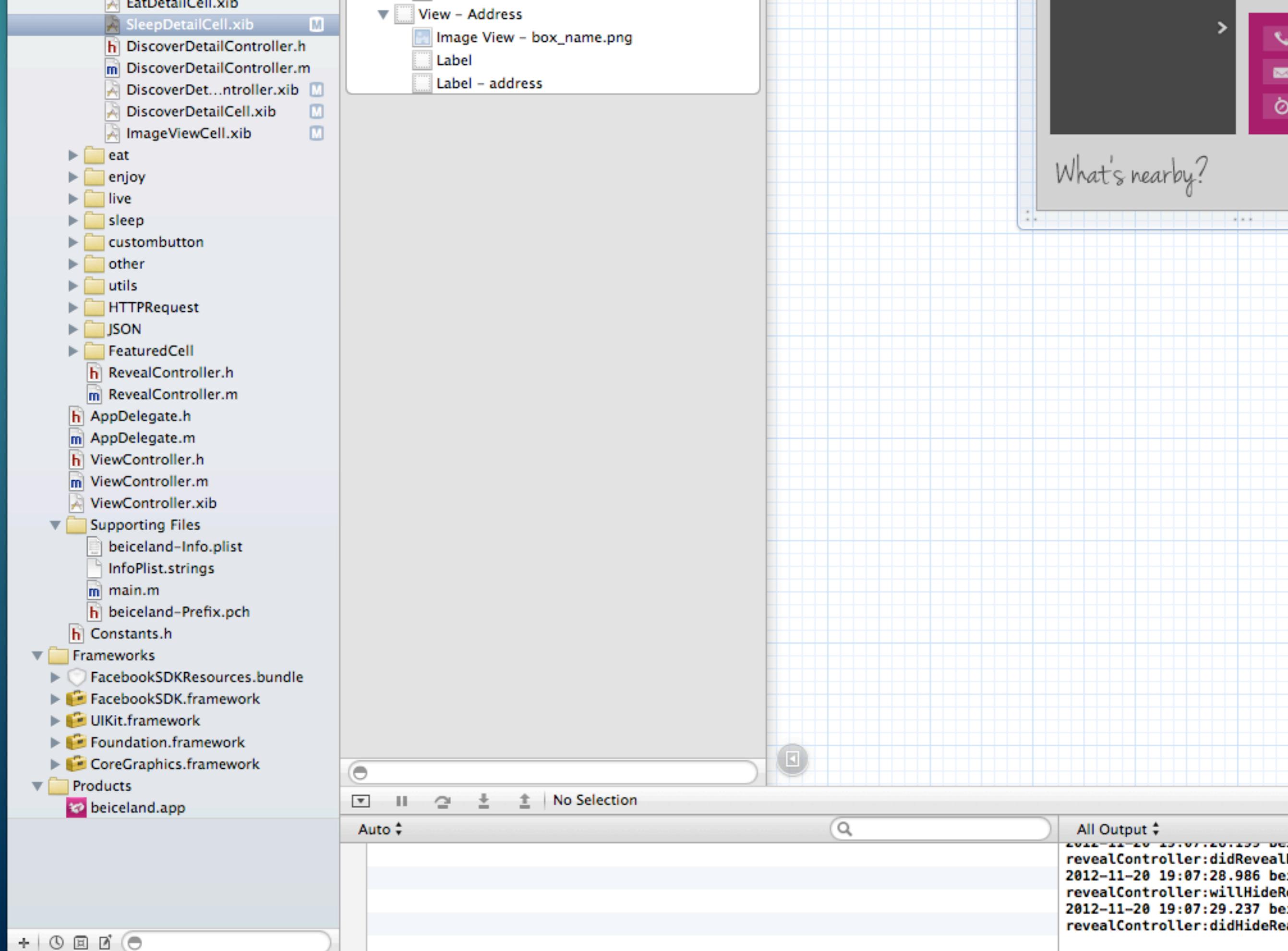
Background

The image shows a Photoshop workspace with a mobile application interface for 'INNOVA' being designed. The interface features a vibrant, multi-colored striped background. At the top, it says 'STOKKUR' and '4:20 PM'. The 'INNOVA' logo is prominently displayed in large white letters. Below the logo, a tagline reads 'Stærsti skemmtistaður i heimi!'. The interface includes four main menu items: 'Tónlist' (Music List) with a musical note icon, '2 fyrir 1' (Buy One Get One Free) with a price tag icon, 'Fyllt'ann' (Full) with a smartphone icon, and 'Stóllinn' (Cart) with a shopping cart icon. The Photoshop interface also displays the 'History' panel, which lists several actions such as 'Edit Slice Options', 'New Slice', and 'Drag Slice', indicating the process of creating a responsive web design. The 'Layers' panel shows the document structure with layers named 'Layer 1', 'front', 'menu', and 'Background'.

Xcode







beiceland.xcodeproj — SleepDetailCell.xib

Finished running beiceland on iPhone 6.0 Simulator

Project 32

Editor View Organizer

Placeholders

- File's Owner
- First Responder

Objects

- Table View Cell
 - View – Description
 - View – Map
 - Map View
 - Map detail button
 - View – Name
 - Image View – lbl_nearby.png
 - View – Cuisine
 - Image View – eat_cuisine_back.png
 - Label
 - Label – Cusine
 - Text View
 - View – Buttons
 - Image View – eat_cuisine_back.png
 - Live Detail Button – Button
 - Live Detail Button – Button
 - Live Detail Button – Button
 - Label
 - Label – E-mail address
 - Label – Official website
 - View – Address
 - Image View – box_name.png
 - Label
 - Label – address

NOVA IS 3G 22:26 37% Restaurant

Nauthóll

address:
Nauthólsvegur 106,
Reykjavík

Cuisine

- Icelandic
- Bistro
- Cafe
- Hamburgers
- Lunch
- Nordic
- Salad
- Sandwiches

description
Nauthóll features modern Icelandic cuisine with an emphasis on fresh local ingredients, in-house production and casual atmosphere. Nauthóll is led by master chef, Eyþór Rúnarsson, an Icelandic national culinary team

Opening hours

+354 5996660

E-mail address

Official website

Button

Type: Custom

State Config: Default

Title: Plain

Font: System Bold 15.0

Text Color: #00008B

Shadow Color: #808080

Image: Default Image

Background: Default Background Image

Shadow Offset: 0,0

Width: Height

Reverses On Highlight:

Highlight Tint: Default

Drawing: Shows Touch On Highlight Highlighted Adjusts Image Disabled Adjusts Image

Line Break: Truncate Middle

Edge: Content

Inset: 0,0

Top: Bottom

Left: Right

Control

Alignment: Horizontal

Vertical

Content: Selected Enabled Highlighted

View

Mode: Scale To Fill

Tag: 515

Interaction: User Interaction Enabled Multiple Touch

Objects

Label: A variably sized amount of static text.

Round Rect Button: Intercepts touch events and sends an action message to a target object when it's tapped.

Segmented Control: Displays multiple segments, each of which functions as a discrete button.

1 2

beiceland.xcodeproj — ViewController.m

Running beiceland on iPhone 6.0 Simulator

Project 32

Editor View Organizer

Identity and Type

- File Name ViewController.m
- File Type Default - Objective-C So... :
- Location Relative to Group ViewController.m
- Full Path /Users/venni/Projects/Belceland/v2/iphone/beiceland/beiceland/ViewController.m

Localization

Make localized...

Target Membership

Text Settings

- Text Encoding Default - Unicode (UTF-8) :
- Line Endings Default - OS X / Unix (LF) :
- Indent Using Spaces
- Widths 2 Tab Indent
- Wrap lines

Thread 1: step over

```

else
{
    AsyncImageView *oldImage = (AsyncImageView *)[_cell.contentView viewWithTag:999];
    [oldImage removeFromSuperview];
}

//***** Category *****
UIImageView *imgCat = (UIImageView *)[_cell viewWithTag:103];
UILabel *lblCat = (UILabel *)[_cell viewWithTag:104];
//[[lblCat setText:@"Hótel Hafnarfjörður"]];

CGSize maximumSize = CGSizeMake(300, 999);
//NSString *myString = @"Hotel";

NSMutableArray *items = [[NSMutableArray alloc] init];
items = [[featuredList objectAtIndex:indexPath.row] objectForKey:@"items"];

NSString *myString = [[items objectAtIndex:0] objectForKey:@"category"];
UIFont *myFont = [UIFont fontWithName:@"DINPro-Bold" size:kLblSizeCategory];
CGSize myStringSize = [myString sizeWithFont:myFont
                           constrainedToSize:maximumSize
                           lineBreakMode:lblCat.lineBreakMode];

[lblCat setText:myString];
[lblCat setFont:myFont];

CGRect imgrect = imgCat.frame;
imgrect.size.width = myStringSize.width + 10;
imgrect.size.height = imgrect.size.height + 2;
imgCat.frame = imgrect;

CGRect dateFrame = lblCat.frame;
dateFrame.size.width = myStringSize.width;
lblCat.frame = dateFrame;

//***** SubCategory 1 *****
UIImageView *imgSubCat1 = (UIImageView *)[_cell viewWithTag:107];
UILabel *lblSubCat1 = (UILabel *)[_cell viewWithTag:108];
maximumSize = CGSizeMake(300, 999);

myString = [[items objectAtIndex:0] objectForKey:@"subcategory"];
if ([myString isKindOfClass:[NSNull class]])
    myString = @"";
NSArray *testArray = [myString componentsSeparatedByString:@",,,"];
myFont = [UIFont fontWithName:@"DINPro-Bold" size:kLblSizeSubCat];
NSString *str = [testArray objectAtIndex:0];

```

Auto : All Output : Clear

Objects

Label Label - A variably sized amount of static text.

Round Rect Button - Intercepts touch events and sends an action message to a target object when it's tapped.

Segmented Control - Displays multiple segments, each of which functions as a discrete button.

Text Text Field - Displays editable text and sends an action message to a target object when Return is tapped.

Slider Slider - Displays a continuous range of values and allows the selection of a single value.

Switch Switch - Displays an element showing the boolean state of a value. Allows tapping the control to toggle the value.

Activity Indicator View - Provides feedback on the progress of a task or process of unknown duration.

Progress View - Depicts the progress

2012-11-20 19:41:34.654 beiceland[2596:c07]

Printing description of items:

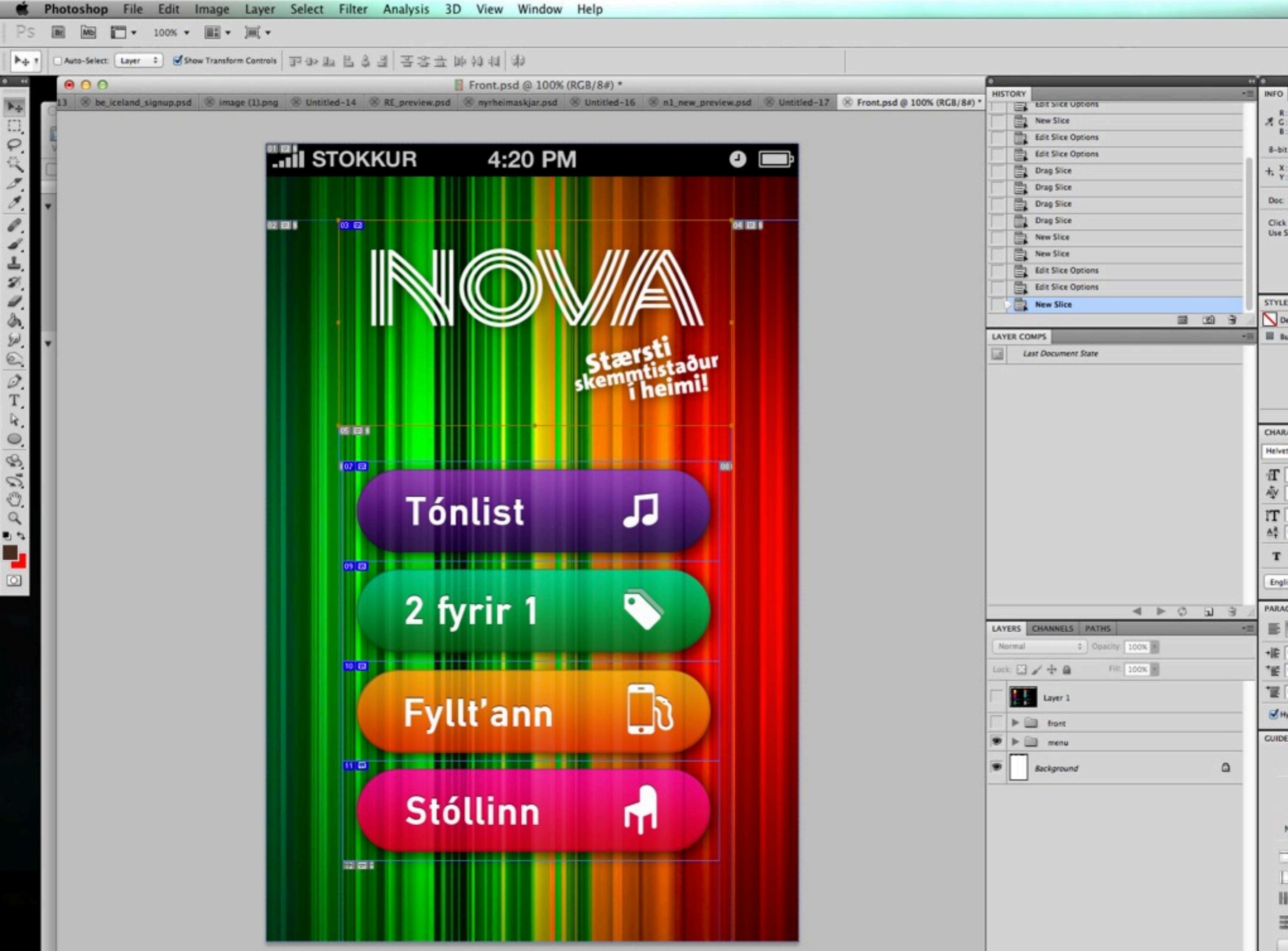
```

<__NSArrayM 0xb194888>(
{
    category = Sleep;
    categoryId = 1;
    city = "Reykjavík\U00f0ek";
    clickType = 3;
    id = 564;
    imagePath = "http://img.beiceland.is/images/d/564/1998";
    name = "Reykjavik Residence Hotel";
    pos = 1;
    subcategory = Hotel;
    tagId = "<null>";
}
)
(lldb)

```

Android SDK - JAVA

Forritarar þurfa að læra „smá“ á Photoshop!



IntelliJ

filter.xml – [Belceland APP] – Belceland APP – [/Projects/Belceland/v2/android]

Project

android [Belceland APP] (~/Projects/Belceland/v2/android)

- .idea
- assets
- bin
- gen
- libs
- res
 - drawable
 - drawable-hdpi
 - drawable-ldpi
 - drawable-mdpi
 - drawable-xhdpi
 - layout
 - discover_detail.xml
 - discover_detail_item.xml
 - eat_detail_item.xml
 - featured_item_double.xml
 - featured_item_single.xml
 - filter.xml
 - filter_bottom.xml
 - filter_item.xml
 - filter_section.xml
 - fragment_live.xml
 - fragment_location.xml
 - fragment_main.xml
 - fragment_menu.xml
 - live.xml
 - live_detail.xml
 - live_detail_item.xml
 - live_item.xml
 - live_item_header.xml
 - livedescription.xml
 - location.xml
 - locationdescription.xml
 - main.xml
 - mapfullscreen.xml
 - menu.xml
 - menu_item.xml
 - menu_item_header.xml
 - sleep_detail_item.xml
 - values
 - values-hdpi
 - values-ldpi
 - values-xhdpi

src
 - is.stokkur.belceland.android
 - AndroidManifest.xml
 - ant.properties
 - Belceland APP.iml
 - build.xml
 - local.properties
 - proguard-project.txt
 - project.properties

facebook [Facebook] (~/Projects/Belceland/v2/android)

slidemenu [Slidemenu] (~/Projects/Belceland/v2/android)

UrlImageViewHelper (~/Projects/Belceland/v2/android)

External Libraries

filter.xml

dimensions.xml

ListAdapterDiscoverDetail.java

Preview

3.7in FWVGA slider : Portrait : Android 2.2

Any locale : Normal : Day time

Theme.NoTitleBar

filter.xml

Filter done

DESTINATION TAP TO SELECT

Capital West Westfjords

South North Reykjanes

East Highlands

```
<ImageButton
    android:id="@+id/btn_done"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:background="@null"
    android:layout_centerVertical="true"
    android:src="@drawable/btnset_done"
    android:layout_marginRight="5dp"
    android:layout_alignParentRight="true"
    android:layout_marginTop="10dp" />
</RelativeLayout>
<!-- Section destination -->
<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="@drawable/filter_section">
    <TextView
        style="@style/DefaultFont"
        android:layout_marginLeft="10dp"
        android:layout_marginTop="5dp"
        android:layout_marginBottom="5dp"
        android:layout_alignParentLeft="true"
        android:layout_centerVertical="true"
        android:textSize="12dp"
        android:textColor="@color/filter_txt_section_title"
        android:text="DESTINATION" />
    <TextView
        style="@style/DefaultFont"
        android:layout_alignParentRight="true"
        android:layout_centerVertical="true"
        android:layout_marginRight="10dp"
        android:layout_marginTop="5dp"
        android:layout_marginBottom="5dp"
        android:textSize="12dp"
        android:textColor="@color/filter_txt_light"
        android:text="TAP TO SELECT" />
</RelativeLayout>
<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp">
    <ToggleButton
        android:id="@+id/btn_filter_capital"
        style="@style/FilterToggleButton"
        android:layout_marginRight="10dp"
        android:layout_marginBottom="10dp"
        android:background="@drawable/btnset_filter_capital" />
    <ToggleButton
        android:id="@+id/btn_filter_west"
        style="@style/FilterToggleButton"
        android:layout_marginRight="10dp"
        android:layout_toRightOf="@+id/btn_filter_capital"
        android:background="@drawable/btnset_filter_west" />
    <ToggleButton
        android:id="@+id/btn_filter_westfjords"
        style="@style/FilterToggleButton"
        android:layout_toRightOf="@+id/btn_filter_west"
        android:background="@drawable/btnset_filter_westfjords" />
    <ToggleButton
        android:id="@+id/btn_filter_south"
        style="@style/FilterToggleButton"
        android:layout_marginRight="10dp"
        android:layout_marginBottom="10dp"
        android:layout_below="@+id/btn_filter_capital"
        android:background="@drawable/btnset_filter_south" />
```

TODO Android Changes 1:1 UTF-8 Event Log

android [Belceland APP] (~/Projects/Belceland/v2/android)

```
▶ .idea
▶ assets
▶ bin
▶ gen
▶ libs
▼ res
  ▶ drawable
  ▶ drawable-hdpi
  ▶ drawable-ldpi
  ▶ drawable-mdpi
  ▶ drawable-xhdpi
▼ layout
  □ discover_detail.xml
  □ discover_detail_item.xml
  □ eat_detail_item.xml
  □ featured_item_double.xml
  □ featured_item_single.xml
  □ filter.xml
  □ filter_bottom.xml
  □ filter_item.xml
  □ filter_section.xml
  □ fragment_live.xml
  □ fragment_location.xml
  □ fragment_main.xml
  □ fragment_menu.xml
  □ live.xml
  □ live_detail.xml
  □ live_detail_item.xml
  □ live_item.xml
  □ live_item_header.xml
  □ livedescription.xml
  □ location.xml
  □ locationdescription.xml
  □ main.xml
  □ mapfullscreen.xml
  □ menu.xml
  □ menu_item.xml
  □ menu_item_header.xml
  □ sleep_detail_item.xml
```

```
<ImageButton
    android:id="@+id/btn_done"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:background="@null"
    android:layout_centerVertical="true"
    android:src="@drawable/btnset_done"
    android:layout_marginRight="5dp"
    android:layout_alignParentRight="true"
    android:layout_marginTop="10dp" />
</RelativeLayout>

<!-- Section destination --&gt;
&lt;RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="@drawable/filter_section"&gt;

    &lt;TextView
        style="@style/DefaultFont"
        android:layout_marginLeft="10dp"
        android:layout_marginTop="5dp"
        android:layout_marginBottom="5dp"
        android:layout_alignParentLeft="true"
        android:layout_centerVertical="true"
        android:textSize="12dp"
        android:textColor="@color/filter_txt_section_title"
        android:text="DESTINATION" /&gt;

    &lt;TextView
        style="@style/DefaultFont"
        android:layout_alignParentRight="true"
        android:layout_centerVertical="true"
        android:layout_marginRight="10dp"
        android:layout_marginTop="5dp"
        android:layout_marginBottom="5dp"
        android:textSize="12dp"
        android:textColor="@color/filter_txt_light"
        android:text="TAP TO SELECT" /&gt;
&lt;/RelativeLayout&gt;

&lt;RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"&gt;

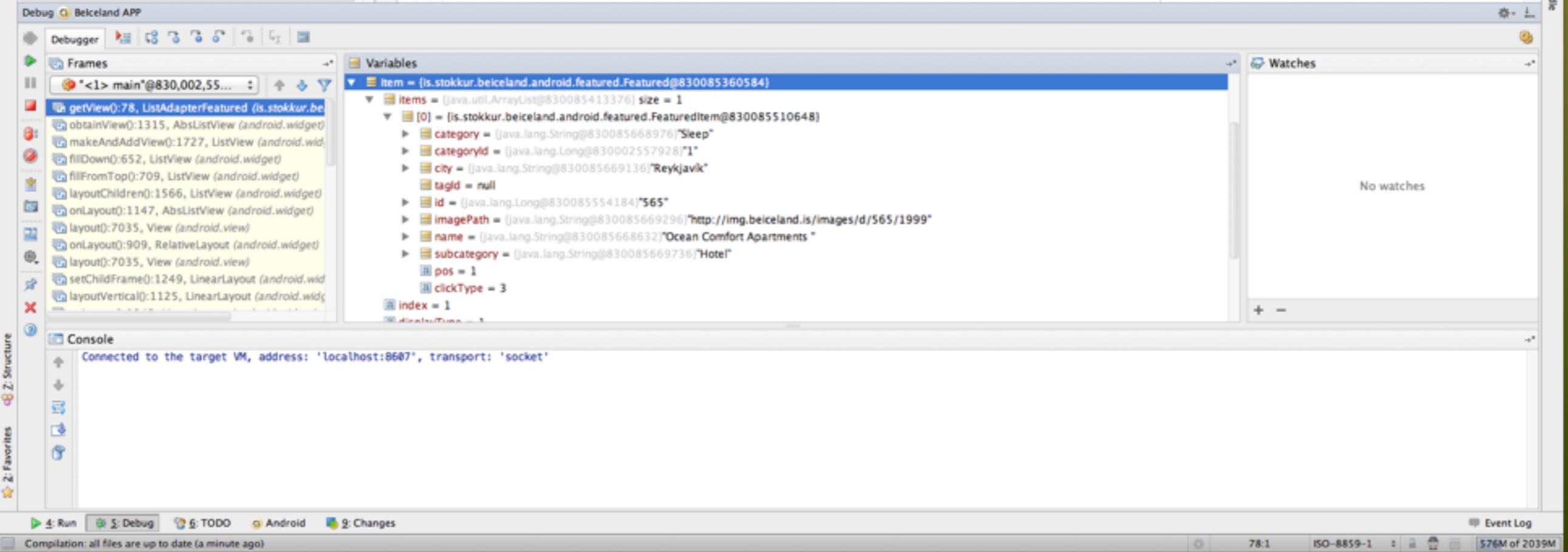
    &lt;ToggleButton
        android:id="@+id/btn_filter_capital"
        style="@style/FilterToggleButtons"
        android:layout_marginRight="10dp"</pre>
```

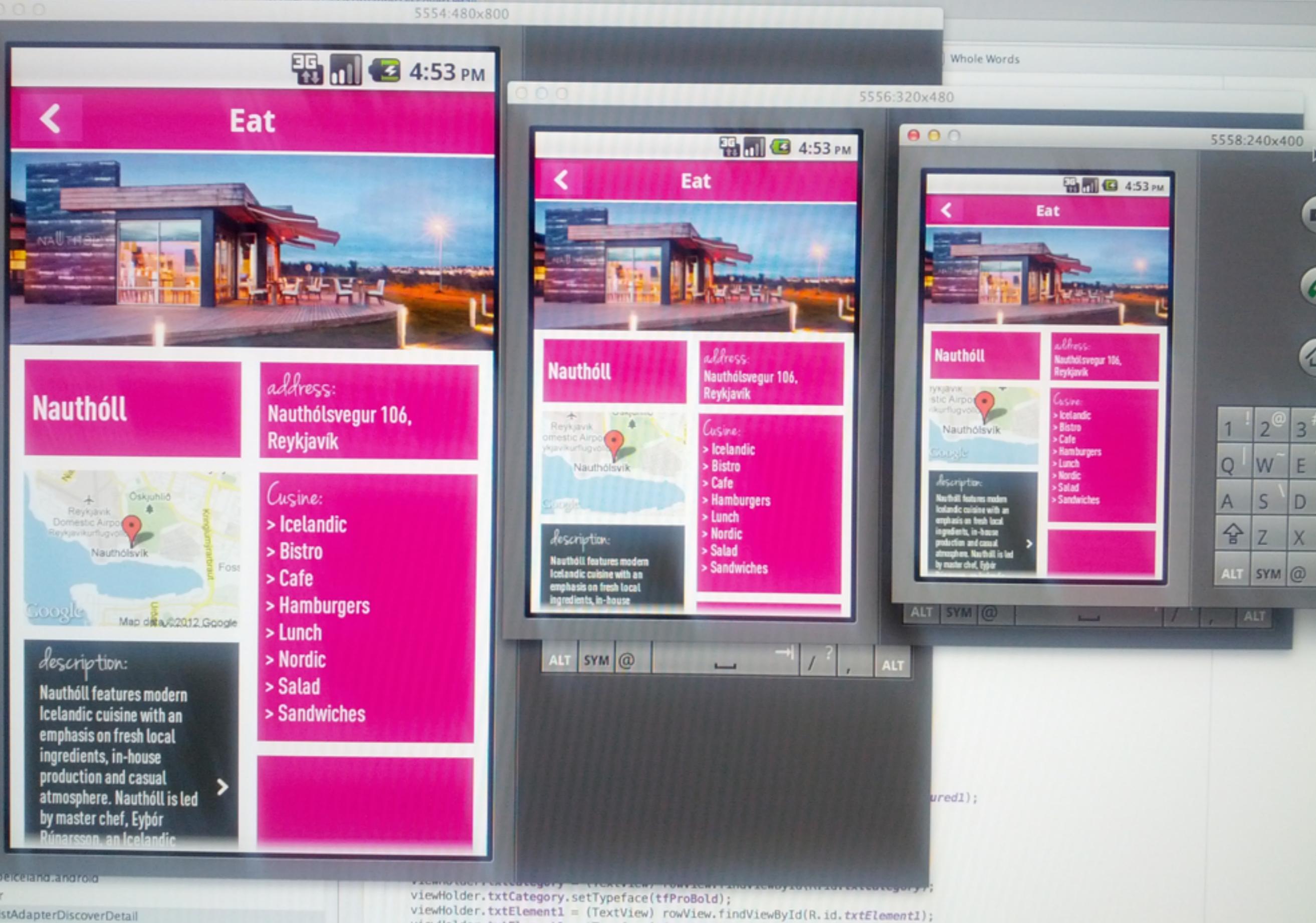
The screenshot shows the Android Studio IDE. The top navigation bar displays the file 'ListAdapterFeatured.java' under the project 'Belceland APP'. The left sidebar shows the project structure with packages like 'android', 'src', and 'stokkur'. The main code editor window contains Java code for a list adapter, specifically handling the display of featured items. A blue horizontal bar highlights a section of the code where a ViewHolder's text fields are being set based on item properties.

```
        viewHolder.txtCategory.setText(fi.getCategory());
        viewHolder.txtLocationName.setText(fi.getName());
        viewHolder.txtCity.setText(fi.getCity());

        String[] elements = fi.getSubcategory().split(",");
        if (elements.length > 0)
        {
            viewHolder.txtElement1.setText(elements[0]);
            viewHolder.txtElement1.setVisibility(View.VISIBLE);
        }
        else
            viewHolder.txtElement1.setVisibility(View.GONE);

        if (elements.length > 1)
        {
            viewHolder.txtElement2.setText(elements[1]);
            viewHolder.txtElement2.setVisibility(View.VISIBLE);
        }
        else
            viewHolder.txtElement2.setVisibility(View.GONE);
```





```
viewHolder.txtCategory = (TextView) rowView.findViewById(R.id.txtCategory);
viewHolder.txtCategory.setTypeface(tfProBold);
viewHolder.txtElement1 = (TextView) rowView.findViewById(R.id.txtElement1);
viewHolder.txtElement1.setTypeface(tfProRegular);
```

ured1);



Bakendi

Java

Spring framework

Hibernate

MySQL

Tomcat

Linux

The screenshot shows an IDE interface with several windows open. On the left, the Project and Structure panes are visible, displaying the project structure and file tree. The main area contains two code editors.

FeaturedController.java:

```
package web.controller.json;

import ...;

/**
 * Cantona
 * Copyright (c) 2011 by Stokkur Software ehf.
 * ALL RIGHTS RESERVED
 */
@Author("venni")
@Controller
public class FeaturedController
{
    @Autowired
    private IFeaturedBusiness featuredBusiness;

    @RequestMapping(value = "/featured.json", method = RequestMethod.GET)
    @ResponseBody
    public FeaturedResult featured()
    {
        return featuredBusiness.getActiveFeatured();
    }
}
```

FeaturedBusiness.java:

```
private static final int LDPI_IMAGE_WIDTH_SMALL = 109;
private static final int MDPI_IMAGE_WIDTH_SMALL = 145;
private static final int HDPI_IMAGE_WIDTH_SMALL = 217;
private static final int RETINA_IMAGE_WIDTH_SMALL = 298;
private static final int XHDPI_IMAGE_WIDTH_SMALL = 326;

@Autowired
private IFeaturedDAO featuredDAO;

@Autowired
private ILocationDAO locationDAO;

@Autowired
private IEventDAO eventDAO;

private String imgStart;
private String imgLocation;

public FeaturedResult getActiveFeatured()
{
    FeaturedResult res = new FeaturedResult(0, "OK");

    Map<Integer, Collection<Featured>> indexes = new HashMap<>();

    Collection<Featured> featureds = featuredDAO.getActiveFeatured();
    for (Featured featured : featureds)
    {
        if (indexes.containsKey(featured.getListIndex()))
            indexes.get(featured.getListIndex()).add(featured);
        else
        {
            Collection<Featured> newcol = new ArrayList<>();
            newcol.add(featured);
            indexes.put(featured.getListIndex(), newcol);
        }
    }

    for (Collection<Featured> fc : indexes.values())
    {
        Featured first = fc.iterator().next();
        FeaturedIndex fi = new FeaturedIndex(first.getListIndex(), first.getDisplayType());

        // Gera random
        if (fc.size() > 1 && first.getDisplayType() == Featured.DISPLAY_TYPE_COLUMNS_1)
        {
            first = (Featured) fc.toArray()[new Random().nextInt(fc.size())];
        }

        fi.getItems().add(featuredToItem(first));

        if (fc.size() > 1 && first.getDisplayType() == Featured.DISPLAY_TYPE_COLUMNS_2)
        {
            first = (Featured) fc.toArray()[1];
            fi.getItems().add(featuredToItem(first));
        }

        res.getFeatured().add(fi);
    }
}

return res;
}

private FeaturedItem featuredToItem(Featured first)
{
    FeaturedItem item = new FeaturedItem();

    // Ef better er location
    if (first.getLocation() != null)
    {
        Location location = first.getLocation();
        item.setId(location.getId());
        item.setName(location.getName());
    }
}
```

JSON

```
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          id: 564,
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          city: "Reykjavík",
          imagePath: http://img.beiceland.is/images/d/564/1998,
          categoryId: 1,
          pos: 1,
          subcategory: "Hotel",
          tagId: null,
          clickType: 3
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      displayType: 1
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    - {
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      - items: [
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          id: 172,
          category: "Eat",
          city: "Reykjavík",
          imagePath: http://img.beiceland.is/images/d/172/648,
          categoryId: 2,
          pos: 1,
          subcategory: "Bistro,Brunch,Cafe",
          tagId: null,
          clickType: 1
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    - {
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      - items: [
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          id: 54,
          category: "Live",
          city: "Reykjavík",
          imagePath: http://img.beiceland.is/images/l/43/43,
          categoryId: 4,
          pos: 1,
          subcategory: "Concert",
          tagId: null,
          clickType: 1
        }
      ],
      displayType: 1
    }
  ]
}
```

N1 Daemi



Prófanir

Lykilatriði

**Ekki bara í
restina!**

**One dedicated
tester!**

Trello

Prófa VEL!

Takk fyrir

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