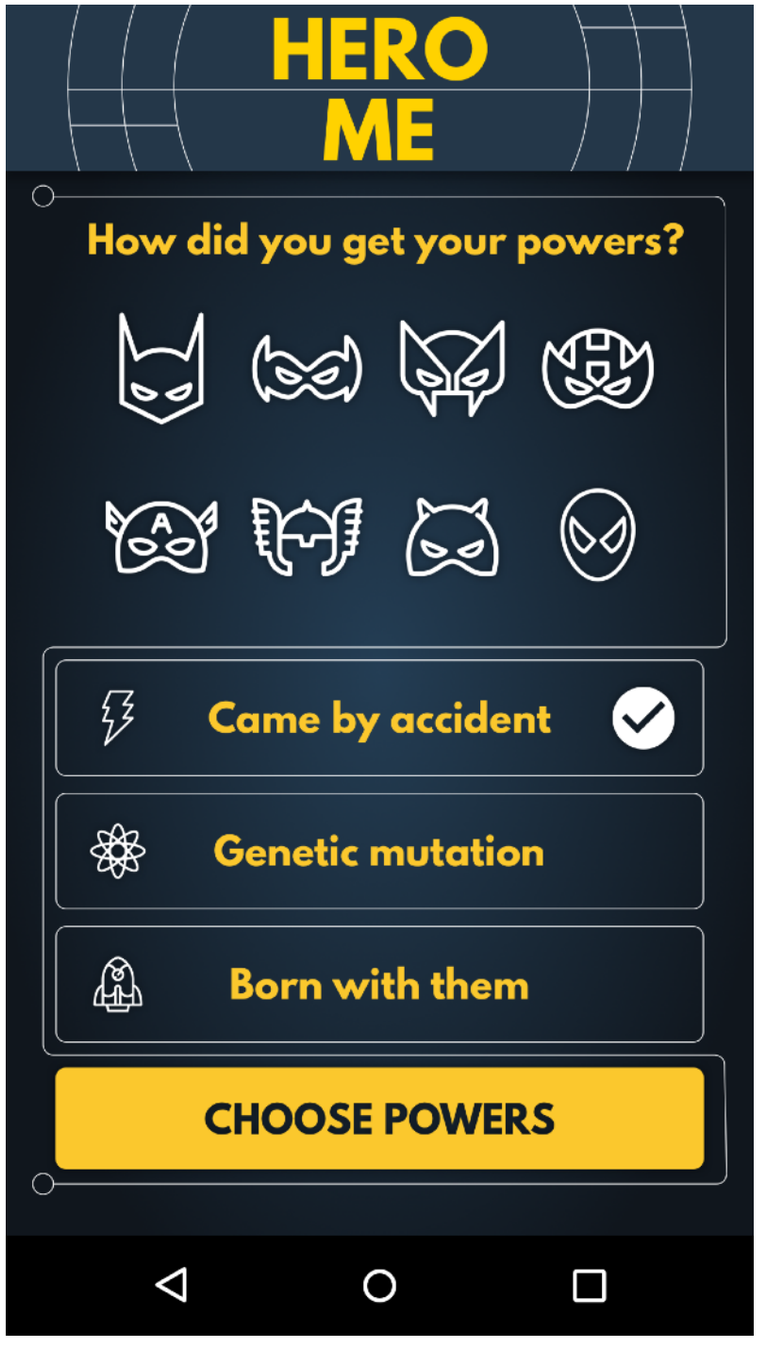
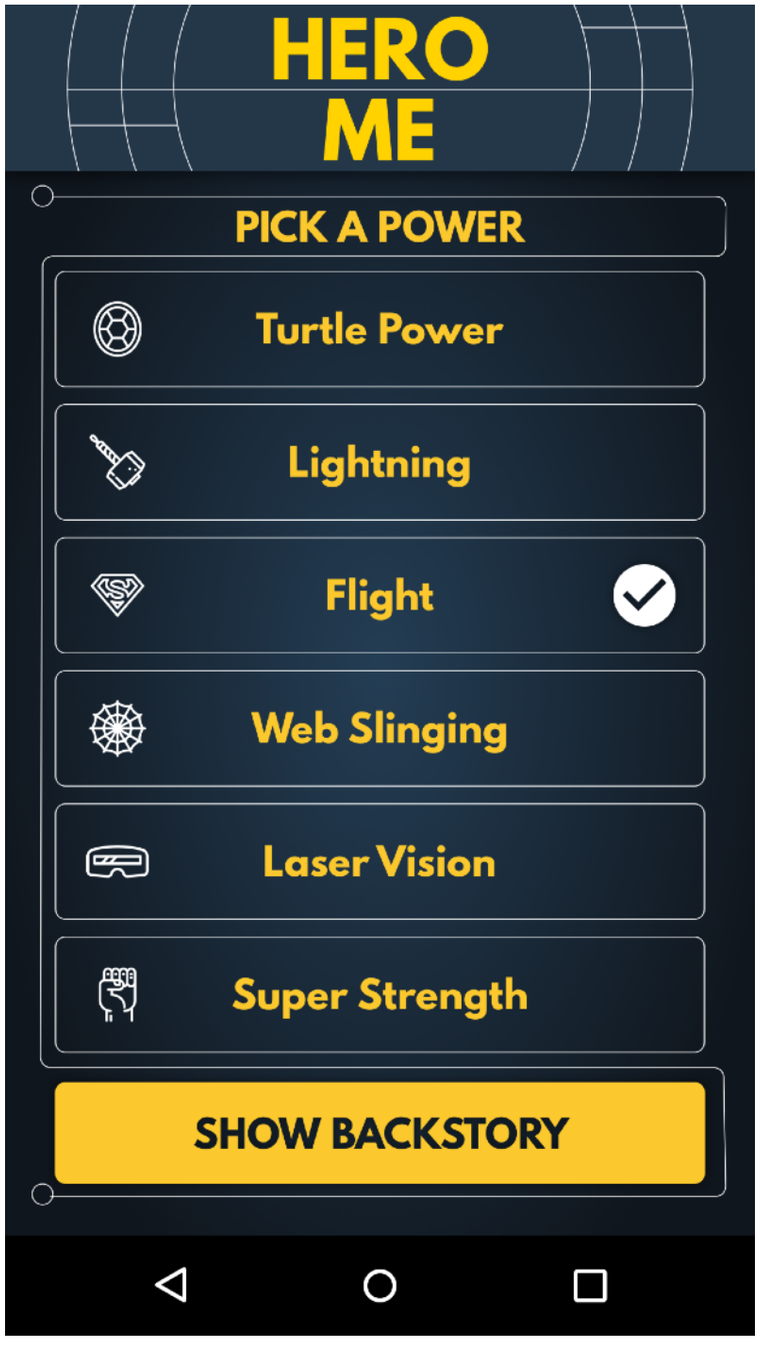
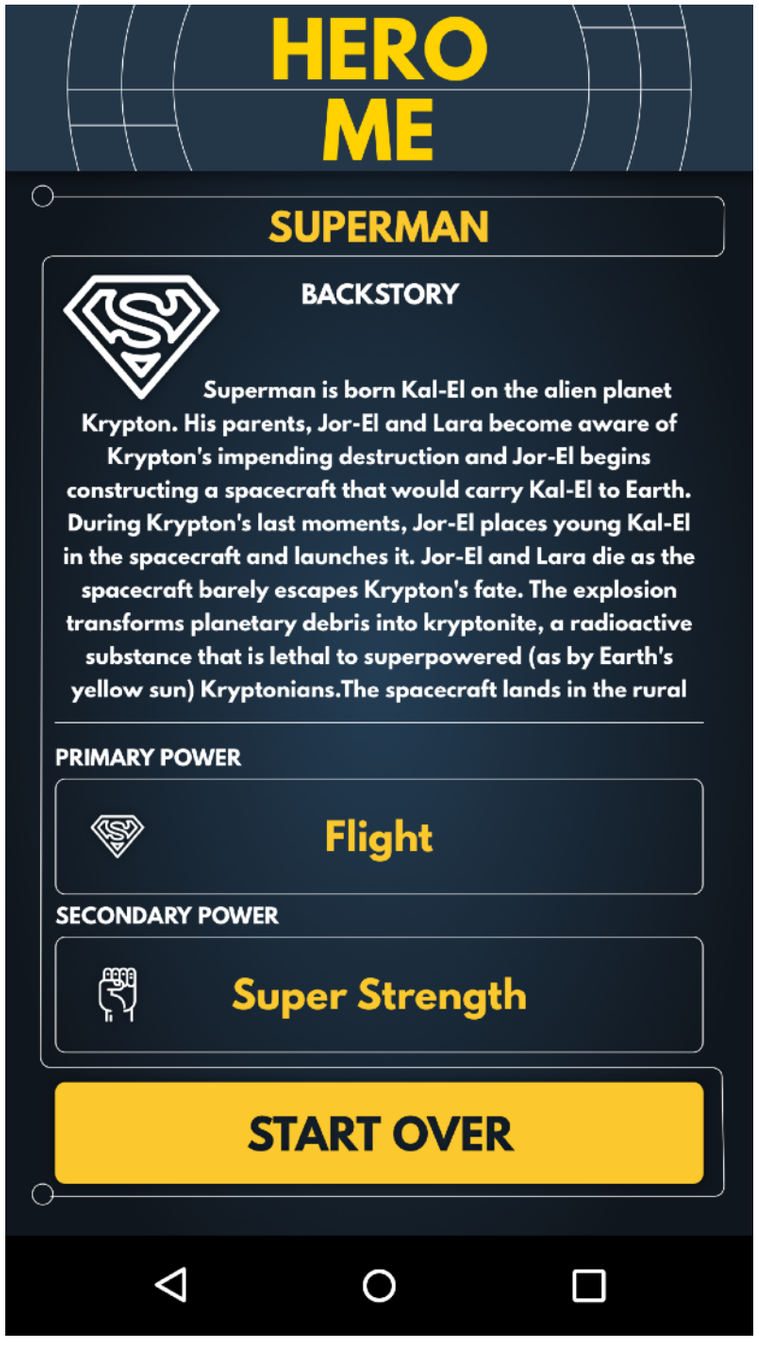
Fragments

HeroMe

Die zu erstellende Applikation







Create New Project

New Project
Android Studio

Configure your new project

Application name: HeroMe

Company domain: htl.at

Package name: at.htl.herome Edit

Include C++ support

Project location: /Users/stuetz/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe ...

Cancel Previous Next Finish

Create New Project

Target Android Devices

Select the form factors your app will run on

Different platforms may require separate SDKs

- [x] Phone and Tablet
  - Minimum SDK: API 16: Android 4.1 (Jelly Bean)
  - Lower API levels target more devices, but have fewer features available.
  - By targeting API 16 and later, your app will run on approximately **95.2%** of the devices that are active on the Google Play Store.
  - Help me choose
- [ ] Wear
  - Minimum SDK: API 21: Android 5.0 (Lollipop)
- [ ] TV
  - Minimum SDK: API 21: Android 5.0 (Lollipop)
- [ ] Android Auto

Cancel | Previous | Next | Finish

Create New Project

Add an Activity to Mobile

Add No Activity

Basic Activity

Bottom Navigation Activity

Empty Activity

Fullscreen Activity

Google AdMob Ads Activity

Google Maps Activity

Login Activity

Master/Detail Flow

Navigation Drawer Activity

Cancel | Previous | Next | Finish

Create New Project

Customize the Activity

Creates a new empty activity

Activity Name: MainActivity

Generate Layout File

Layout Name: activity_main

Backwards Compatibility (AppCompat)

Empty Activity

The name of the activity class to create

Cancel Previous Next Finish

MainActivity.java - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

HeroMe › app › src › main › java › at › htl › herome › MainActivity

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - at.htl.herome
      - MainActivity
    - at.htl.herome (androidTest)
      - ExampleInstrumentedTest
    - at.htl.herome (test)
      - ExampleUnitTest
  - res
    - drawable
    - layout
      - activity_main.xml
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - styles.xml
- Gradle Scripts
  - build.gradle (Project: HeroMe)
  - build.gradle (Module: app)
  - gradle-wrapper.properties (Gradle Version)
  - proguard-rules.pro (ProGuard Rules for app)
  - gradle.properties (Project Properties)
  - settings.gradle (Project Settings)
  - local.properties (SDK Location)

activity_main.xml | MainActivity.java

```
1  package at.htl.herome;
2
3  import ...
5
6  public class MainActivity extends AppCompatActivity {
7
8      @Override
9      protected void onCreate(Bundle savedInstanceState) {
10         super.onCreate(savedInstanceState);
11         setContentView(R.layout.activity_main);
```

New Package

Enter new package name:

fragments

Cancel | OK

New Package

Enter new package name:

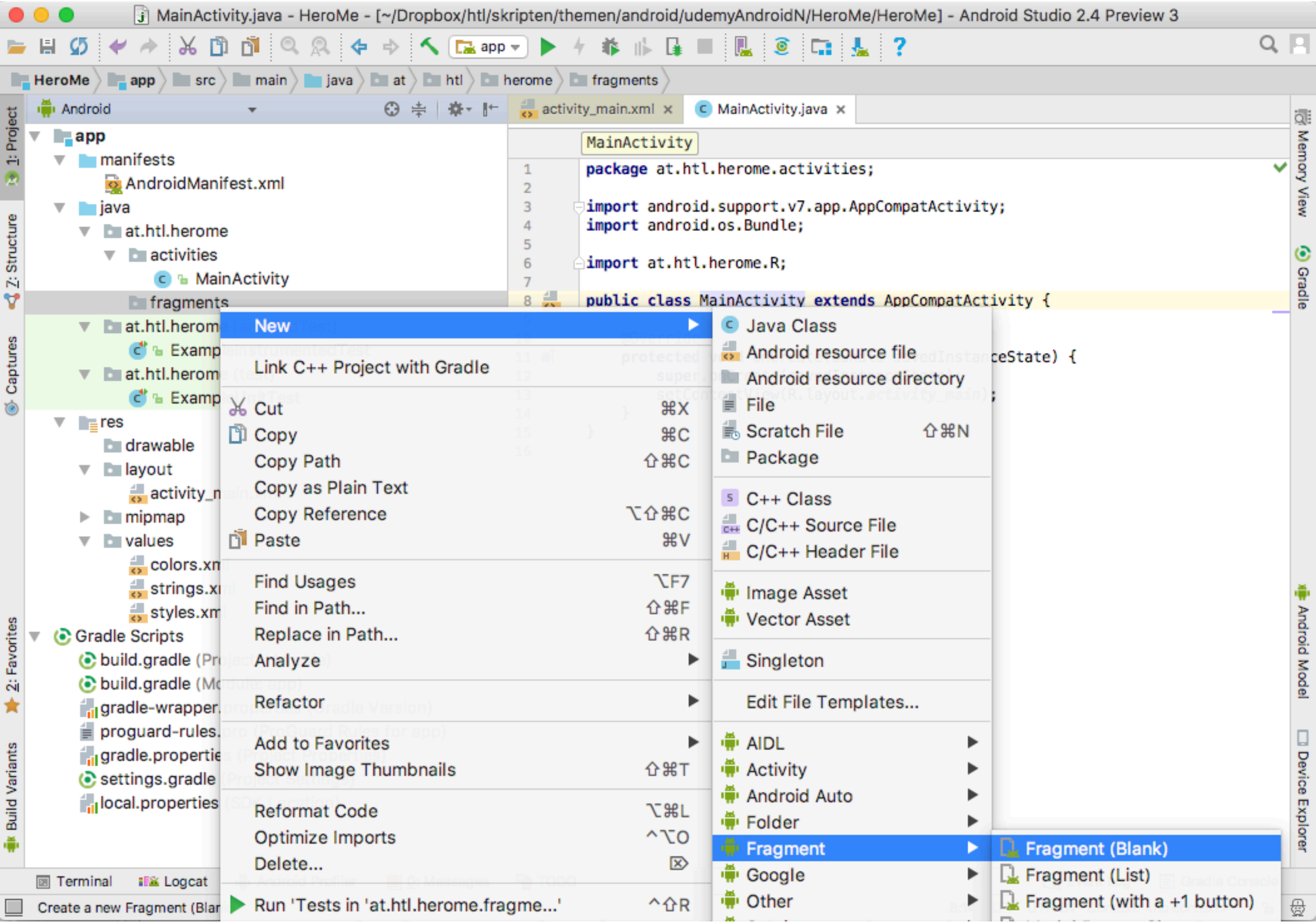
activities

Cancel | OK

1: Project | 7: Structure | Captures | 2: Favorites | Build Variants | Memory View | Gradle | Android Model | Device Explorer

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 10s 122ms (a minute ago) 14:1 LF UTF-8 Context: <no context>

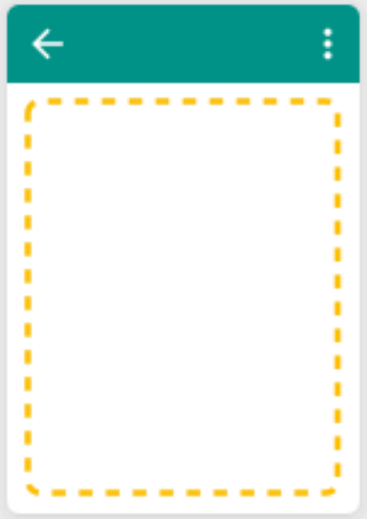

MainActivity.java - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3
HeroMe
app
src
main
java
at
htl
herome
fragments
Android
activity_main.xml
MainActivity.java
MainActivity
package at.htl.herome.activities;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import at.htl.herome.R;
public class MainActivity extends AppCompatActivity {
New
Link C++ Project with Gradle
Cut ⌘X
Copy ⌘C
Copy Path ⇧⌘C
Copy as Plain Text
Copy Reference ⌥⇧⌘C
Paste ⌘V
Find Usages ⌥F7
Find in Path... ⇧⌘F
Replace in Path... ⇧⌘R
Analyze
Refactor
Add to Favorites
Show Image Thumbnails ⇧⌘T
Reformat Code ⌥⌘L
Optimize Imports ^⌥O
Delete...
Run 'Tests in 'at.htl.herome.fragme...' ^⇧R
Java Class
Android resource file
Android resource directory
File
Scratch File ⇧⌘N
Package
C++ Class
C/C++ Source File
C/C++ Header File
Image Asset
Vector Asset
Singleton
Edit File Templates...
AIDL
Activity
Android Auto
Folder
Fragment
Google
Other
Fragment (Blank)
Fragment (List)
Fragment (with a +1 button)
Terminal
Logcat
Create a new Fragment (Blar

MainActivity.java - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

New Android Component

Configure Component

Android Studio



Creates a blank fragment that is compatible back to API level 4.

Fragment Name: MainFragment

☑ Create layout XML?

Fragment Layout Name: fragment_main

☑ Include fragment factory methods?

☑ Include interface callbacks?

The name of the fragment class to create

Cancel | Previous | Next | Finish

Gradle build finished in 10s 122ms (4 minutes ago)

8:14 LF UTF-8 Context: <no context>

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

app

HeroMe › app › src › main › res › layout › fragment_main.xml

fragment_main.xml

Palette

All
Widgets
Text
Layouts
Containers
Images

TextView
Button
ToggleButton
CheckBox
RadioButton
CheckedTextView

Nexus 4 · 25 · AppTheme · Language

28%

Component Tree

FrameLayout
TextView - "@string/hello_blank_f

Select
Cut ⌘X
Copy ⌘C
Paste ⌘V
Delete
Go to XML ⌘B
Refactor
Save Screenshot...
Convert FrameLayout to ConstraintLayout

Properties

ID
layout_width match_parent
layout_height match_parent

TextView
text @string/hello_b
text
contentDescri
textAppear Material.Small
fontFamily sans-serif
typeface none
textSize 14sp
lineSpacingEx none
textColor
textStyle
textAlignment

Favorite Attributes
visibility none

View all properties

Design Text

Terminal Logcat Android Profiler 0: Messages TODO Event Log Gradle Console

Delete selected item

n/a Context: <no context>

Das LinearLayout ins FrameLayout ziehen

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

HeroMe > app > src > main > res > layout > fragment_main.xml

Palette

All
Widgets
Text
Layouts
Containers
Images
Date
Transitions
Advanced
Google
Design
AppCompat

ConstraintLayout
GridLayout
FrameLayout
LinearLayout (horizontal)
LinearLayout (vertical)
RelativeLayout
TableLayout
TableRow
<fragment>

LinearLayout (vertical)

Component Tree

FrameLayout
LinearLayout (vertical)

Properties

ID
layout_width: match_parent
layout_height: match_parent

LinearLayout
orientation: vertical
gravity

Favorite Attributes
visibility: none

View all properties

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (4 minutes ago)

n/a Context: <no context>

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

app

HeroMe › app › src › main › res › layout › fragment_main.xml

fragment_main.xml

Palette

All
Widgets
Text
Layouts
Containers
Images
Date
Transitions
Advanced
Google
Design
AppCompat

ConstraintLayout
GridL
Fram
Linea
Linea
Relat
Table
Table
<frag

Nexus 4 | 25 | Alert | Language

Properties

Select Theme

noactionbar

Recent
Manifest Themes
Project Themes
Material Dark
Material Light
Holo Dark
Holo Light
Device Default
Dialogs
Light
All

Holo.Light.NoActionBar
Holo.Light.NoActionBar.Fullscreen
Holo.Light.NoActionBar.Overscan
Holo.Light.NoActionBar.TranslucentDecor
Holo.NoActionBar
Holo.NoActionBar.Fullscreen
Holo.NoActionBar.Overscan
Holo.NoActionBar.TranslucentDecor
Material.Dialog.NoActionBar
Material.Dialog.NoActionBar.MinWidth
Material.DialogWhenLarge.NoActionBar
Material.Light.Dialog.NoActionBar
Material.Light.Dialog.NoActionBar.MinWidth
Material.Light.DialogWhenLarge.NoActionBar
Material.Light.NoActionBar
Material.Light.NoActionBar.Fullscreen
Material.Light.NoActionBar.Overscan
Material.Light.NoActionBar.TranslucentDecor
Material.NoActionBar
Material.NoActionBar.Fullscreen
Material.NoActionBar.Overscan
Material.NoActionBar.TranslucentDecor
AppCompat.DayNight.NoActionBar
AppCompat.Light.NoActionBar
AppCompat.NoActionBar

Cancel
OK

LinearLayout

Component Tree

FrameLayout
LinearLayout

Design | Text

Terminal | Logcat

Gradle build finished in 3s 411ms (13 minutes ago)

n/a Context: <no context>

1: Project | 7: Structure | Captures | 2: Favorites | Build Variants | Memory View | Gradle | Android Model | Device Explorer

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

HeroMe › app › src › main › res › layout › fragment_main.xml

fragment_main.xml

Palette

All
Widgets
Text
Layouts
Containers
Images
Date
Transitions
Advanced
Google
Design
AppCompat

ConstraintLayout
GridLayout
FrameLayout
LinearLayout (horizontal)
LinearLayout (vertical)
RelativeLayout
TableLayout
TableRow
<fragment>

LinearLayout (vertical)

Component Tree

FrameLayout
LinearLayout (vertical)

Nexus 4 | 25 | NoActionBar | Language

Properties

Falls hier nicht „NoActionBar“ angezeigt wird, kann dieses Theme auch im Manifest geändert werden android:theme=„@style/Theme.AppCompat.NoActionBar

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (14 minutes ago)

n/a Context: <no context>

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

HeroMe › app › src › main › res › layout › fragment_main.xml

fragment_main.xml | AndroidManifest.xml

Palette

- All
- Widgets
- Text
- Layouts
- Containers
- Images
- Date
- Transitions
- Advanced
- Google
- Design
- AppCompat

CardView
GridLayout
RecyclerView
Toolbar

v7 Toolbar

Toolbar

Component Tree

- FrameLayout
  - LinearLayout (vertical)
    - toolbar

Nexus 4 | 25 | NoActionBar | 26%

Properties

ID	toolbar
layout_width	match_parent
layout_height	wrap_content

Toolbar

theme	?attr/actionBarTheme
background	#253748
popupTheme	
minHeight	?attr/actionBarSize
elevation	

Favorite Attributes

visibility	none

LinearLayout_layout

layout_weight	

View all properties

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (24 minutes ago) 1:20 n/a Context: <no context>

Resources

Search

Add new resource

actionBarSize
dialogPreferredPadding
listPreferredItemHeight
listPreferredItemHeightLarge
listPreferredItemHeightSmall
listPreferredItemPaddingLeft
listPreferredItemPaddingRight
actionBarSize
ambientShadowAlpha
dialogPreferredPadding
disabledAlpha
dropdownListPreferredItemHeigh
expandableListPreferredChildIndi
expandableListPreferredChildIndi
expandableListPreferredChildPad
expandableListPreferredItemIndic
expandableListPreferredItemIndic
expandableListPreferredItemPadd
lightRadius
lightY
lightZ

actionBarSize

```
?attr/actionBarSize => ?android:attr/actionBarSize =>
@dimen/action_bar_default_height_material => 56dp
```

minHeight kann direkt gewählt werden. Allerdings besteht hier ein Fehler: Der gewählte Wert wird nur im Textmodus angezeigt, nicht im Design-Modus

Cancel

OK

fragment_main.xml

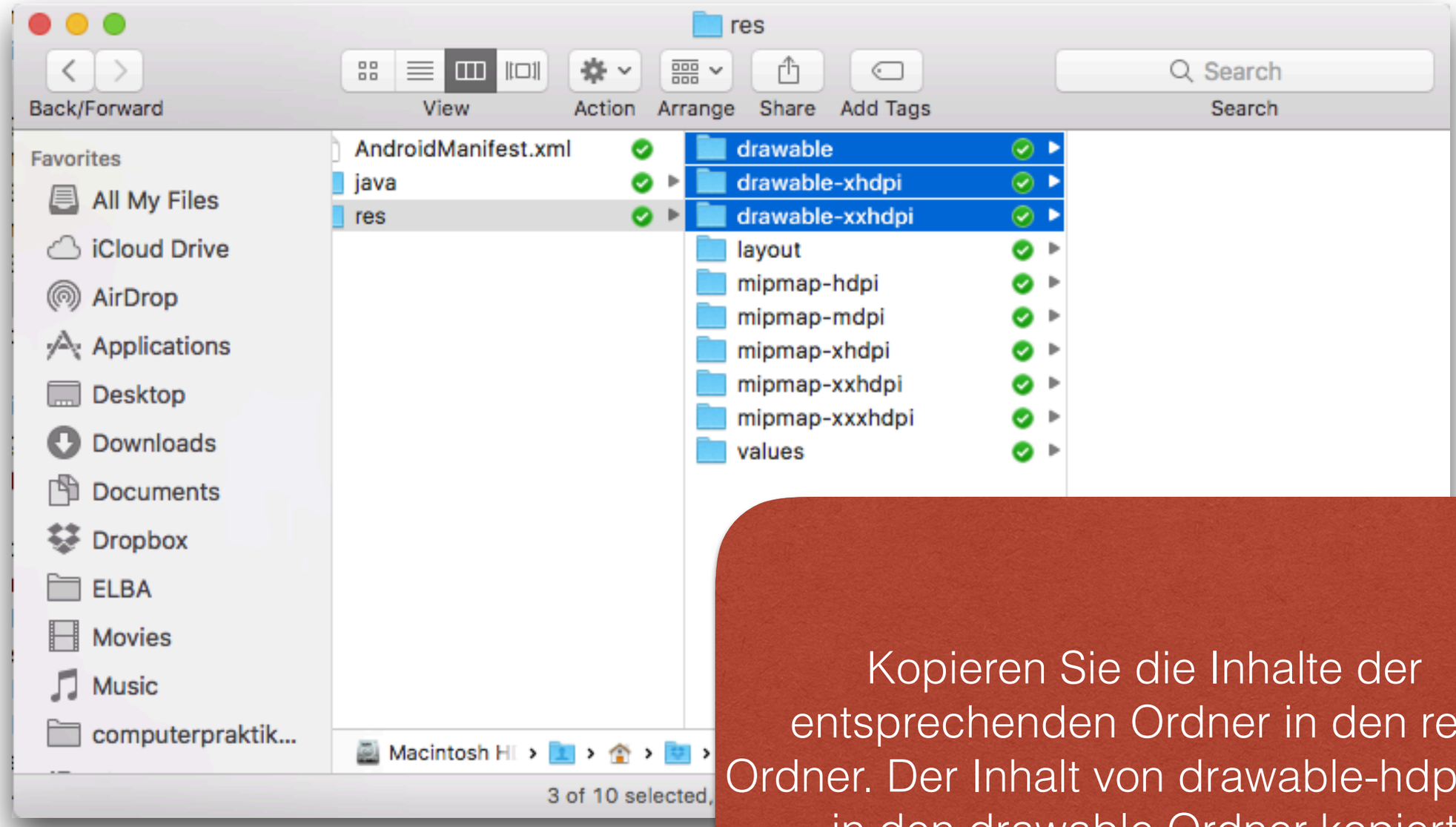
```
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="at.htl.herome.fragments.MainFragment">

    <!-- TODO: Update blank fragment layout -->

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:background="#253748"
            android:minHeight="?attr/actionBarSize"
            android:theme="?attr/actionBarTheme" />
    </LinearLayout>
</FrameLayout>
```

Resourcen



Kopieren Sie die Inhalte der entsprechenden Ordner in den res-Ordner. Der Inhalt von drawable-hdpi wird in den drawable Ordner kopiert

Eine ImageView kann nicht direkt auf die toolbar gezogen werden (Bug!), darum darunter und dann im Text in die toolbar einbinden

```
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="at.htl.herome.fragments.MainFragment">

    <!-- TODO: Update blank fragment layout -->

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:background="#253748"
            android:minWidth="?attr/actionBarSize"
            android:theme="?attr/actionBarTheme">

            <ImageView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:src="@drawable/top_banner_bar" />
        </android.support.v7.widget.Toolbar>
    </LinearLayout>
</FrameLayout>
```

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

app

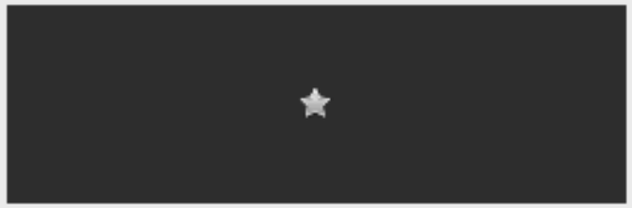
HeroMe › app › src › main › res › layout › fragment_main.xml

fragment_main.xml

Palette

All
Widgets
Text
Layouts
Containers
Images
Date
Transitions
Advanced
Google
Design
AppCompat

ImageButton
ImageView
VideoView



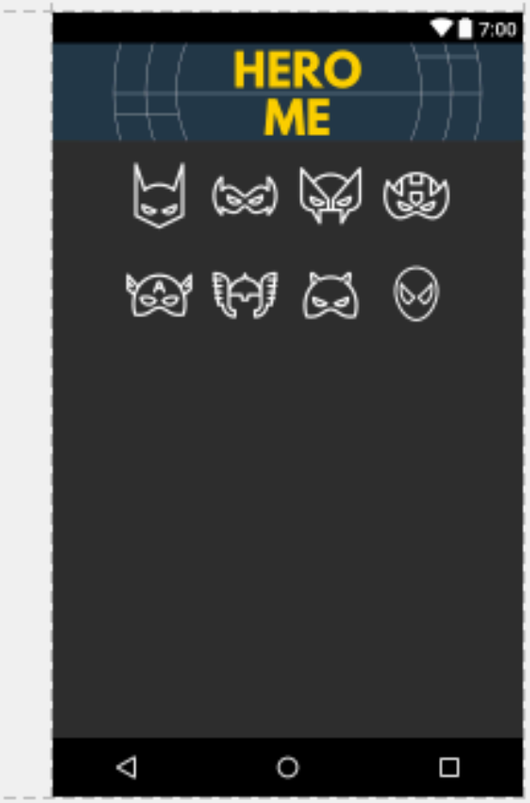
ImageView

Component Tree

FrameLayout
LinearLayout (vertical)
toolbar
imageView

Nexus 4 25 NoActionBar

25%



Properties

id	imageView
layout_width	wrap_content
layout_height	wrap_content
Layout_Margin	[?, ?, 15dp, ?, ?]
all	
top	15dp
bottom	
end	
left	
right	
start	
Padding	[?, ?, ?, ?, ?]
Theme	
elevation	
layout_gravity	[center_horizontal]
src	@drawable/heroes
accessibilityLiveRegion	
accessibilityTraversalAfter	
accessibilityTraversalBefo	
adjustViewBounds	
alpha	
background	
backgroundTint	
backgroundTintMode	

Design Text

Terminal Logcat Android Profiler 0: Messages TODO Event Log Gradle Console

Gradle build finished in 3s 411ms (today 22:27)

n/a Context: <no context>

```
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="at.htl.herome.fragments.MainFragment">

    <!-- TODO: Update blank fragment layout -->

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:background="#253748"
            android:minWidth="?attr/actionBarSize"
            android:theme="?attr/actionBarTheme">

            <ImageView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:src="@drawable/top_banner_bar" />
        </android.support.v7.widget.Toolbar>

        <ImageView
            android:id="@+id/imageView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center_horizontal"
            android:layout_marginTop="15dp"
            android:src="@drawable/heroes" />
    </LinearLayout>
</FrameLayout>
```

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

app

HeroMe > app > src > main > res > layout > fragment_main.xml

fragment_main.xml

Palette

All
Widgets
Text
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Containers
Images
Date
Transitions
Advanced
Google
Design
AppCompat

TextView
Button
ToggleButton
CheckBox
RadioButton
CheckedTextView
Spinner
ProgressBar
ProgressBar (Horizontal
SeekBar
SeekBar (Discrete)
QuickContactBadge
RatingBar

Button

Component Tree

FrameLayout
LinearLayout (vertical)
toolbar
imageView
button - "Came By Accident"

Nexus 4 | 25 | NoActionBar

25%

HERO ME

CAME BY ACCIDENT

Properties

id	button
layout_width	300dp
layout_height	60dp
Layout_Margin	[?, ?, ?, ?, ?]
Padding	[?, ?, ?, ?, ?]
Theme	
elevation	
layout_gravity	[center_horizontal]
text	Came By Accident
accessibilityLiveRegion	
accessibilityTraversalAfter	
accessibilityTraversalBefo	
allowUndo	
alpha	
autoLink	[]
autoText	
background	
backgroundTint	
backgroundTintMode	
breakStrategy	
bufferType	
capitalize	
clickable	
contentDescription	

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (today 22:27)

n/a Context: <no context>

hero_button.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

res
drawable

New
Link C++ Project with Gradle
Drawable resource file
File
Scratch File ⇧⌘N

HeroMe > app

Android

app
manifests
java
res

New Resource File

File name: hero_button
Source set: main
Directory name: drawable

Available qualifiers:
Country Code
Network Code
Locale
Layout Direction
Smallest Screen Width
Screen Width
Screen Height
Size
Ratio
Orientation
UI Mode
Night Mode
Density
Touch Screen

>>
<<

Chosen qualifiers:
Nothing to show

Cancel
OK

laser_vision.png (3)
laser_vision_option.png (3)
lightning.png (3)
lightning_option.png (3)

1: Project
7: Structure
Captures
2: Favorites
Build Variants
Memory View
Gradle
Preview
Android Model
Device Explorer

Terminal
Logcat
Android Profiler
0: Messages
TODO
Event Log
Gradle Console

Gradle build finished in 3s 411ms (today 22:27)
1:1 LF UTF-8 Context: <no context>

Umrandung für den Button

```
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <stroke
        android:width="1dp"
        android:color="#FFF" />

     <corners android:radius="7dp" ></corners>

</shape>
```

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

HeroMe > app > src > main > res > layout > fragment_main.xml

fragment_main.xml

Palette

All
Widgets
Text
Layouts
Containers
Images
Date
Transitions
Advanced
Google
Design
AppCompat

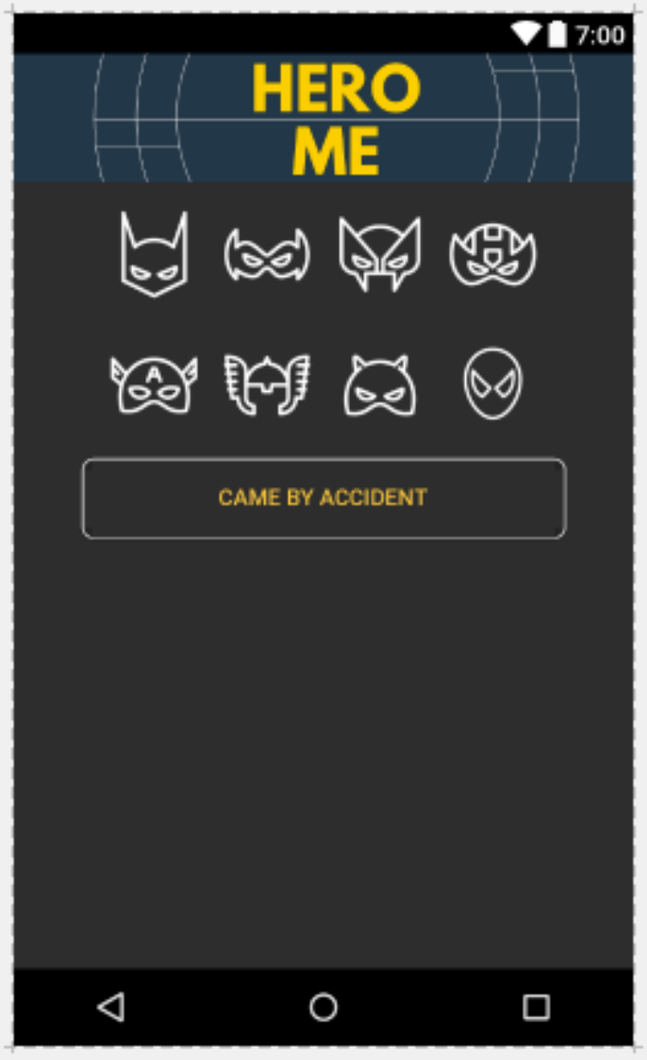
TextView
Button
ToggleButton
CheckBox
RadioButton
CheckedTextView
Spinner
ProgressBar
ProgressBar (Horizontal
SeekBar
SeekBar (Discrete)
QuickContactBadge
RatingBar

Button

Component Tree

FrameLayout
LinearLayout (vertical)
toolbar
imageView
button - "Came By Accident"

Nexus 4 | 25 | NoActionBar | 33%



Properties

id	button
layout_width	300dp
layout_height	50dp
Layout_Margin	[?, ?, 15dp, ?, ?]
all	
bottom	
end	
left	
right	
start	
top	15dp
Padding	[?, ?, ?, ?, ?]
Theme	
elevation	
background	@drawable/hero_button
layout_gravity	[center_horizontal]
text	Came By Accident
textColor	#FAC740
accessibilityLiveRegi	
accessibilityTraversa	
accessibilityTraversa	
allowUndo	
alpha	
autoLink	[]

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (today 22:27)

4 chars 1:5 n/a Context: <no context>

drawableEnd

drawableLeft

ligh

Add new resource

Drawable

Color

ID

String

Style

Project

flight_option

lightning

lightning_option

android

alert_light_frame

dialog_holo_light_frame

editbox_dropdown_light_frame

screen_background_light

screen_background_light_transparent

Theme attributes

Nothing to show

Name: lightning

xhdpi

PNG

@drawable/lightning

⇒ lightning.png

Cancel

OK

drawableRight

Search

Add new resource

Drawable
Color
ID
String
Style

Project

app_bg
atomic
big_superman_logo
born_with_them_powers
button_base
choose_powers_button
flight_option
genetic_mutation_powers
hero_bg_gradient
hero_button
hero_solid_button
heroes
ic_launcher
ic_launcher_round
item_selected

Name: item_selected

xhdpi

PNG

@drawable/item_selected
⇒ item_selected.png

Cancel
OK

Button

```
<Button
    android:id="@+id/button"
    android:layout_width="300dp"
    android:layout_height="50dp"
    android:layout_gravity="center_horizontal"
    android:layout_marginTop="15dp"
    android:background="@drawable/hero_button"
    android:drawableLeft="@drawable/lightning"
    android:drawableRight="@drawable/item_selected"
    android:paddingLeft="5dp"
    android:paddingRight="10dp"
    android:text="Came By Accident"
    android:textColor="#FAC740" />
```

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

HeroMe > app > src > main > res > drawable-xhdpi

Android

app
manifests
java
res
laser_vision.png (3)
laser_vision_option.png (3)
lightning.png (3)
lightning_option.png (3)

fragment_main.xml

FrameLayout | LinearLayout

New Resource File

File name: hero_bg_gradient

Source set: main

Directory name: drawable

Available qualifiers:

- Country Code
- Network Code
- Locale
- Layout Direction
- Smallest Screen Width
- Screen Width
- Screen Height
- Size
- Ratio
- Orientation
- UI Mode
- Night Mode
- Density
- Touch Screen

>>

<<

Chosen qualifiers:

Nothing to show

Cancel | OK

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (today 22:27) 560 chars, 12 line breaks 49:43 LF UTF-8 Context: <no context>

hero_bg_gradient.xml

```
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/
android">
    <gradient
        android:angle="0"
        android:centerColor="#233B4F"
        android:endColor="#10161D"
        android:startColor="#10161D" />

</shape>
```

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

app

HeroMe › app › src › main › res › layout › fragment_main.xml

fragment_main.xml

Palette

- All
- Widgets
- Text
- Layouts
- Containers
- Images
- Date
- Transitions
- Advanced
- Google
- Design
- AppCompat

- TextView
- Button
- ToggleButton
- CheckBox
- RadioButton
- CheckedTextView
- Spinner
- ProgressBar
- ProgressBar (Horizontal
- SeekBar
- SeekBar (Discrete)
- QuickContactBadge
- RatingBar

Button

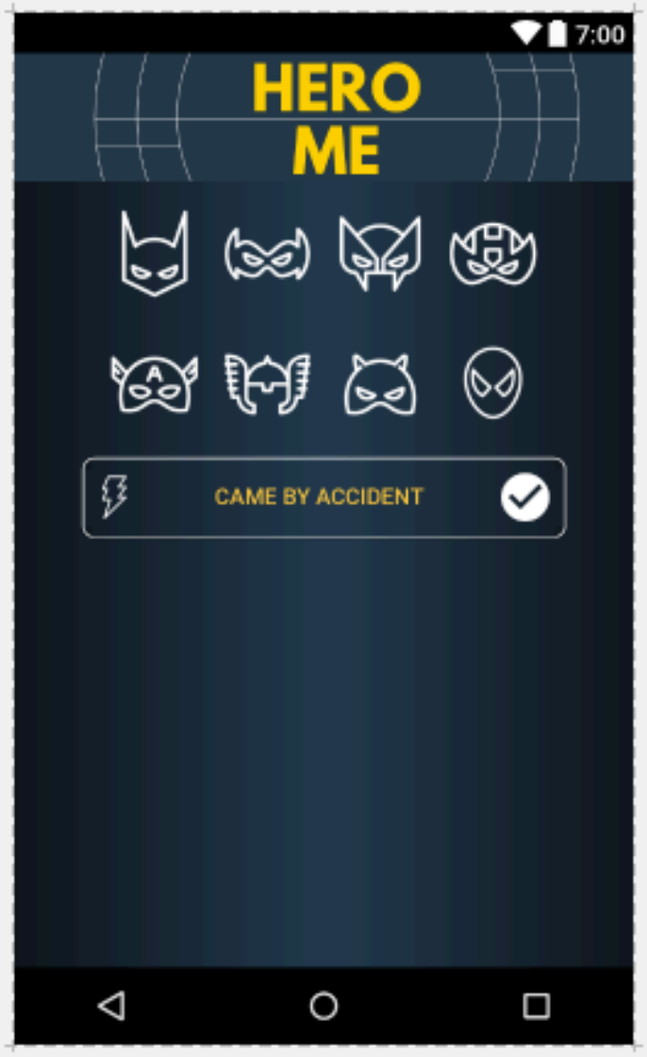
Button

Component Tree

- FrameLayout
  - LinearLayout (vertical)
    - toolbar
    - imageView
    - button - "Came By Accident"

Nexus 4 · 25 · NoActionBar

33%



Properties

id	
layout_width	match_parent
layout_height	match_parent
Constraints	
Layout_Margin	[?, ?, ?, ?, ?]
Padding	[?, ?, ?, ?, ?]
Theme	
elevation	
background	@drawable/hero_bg_gradient
context	at.htl.herome.fragments.MainF
accessibilityLiveRegion	
accessibilityTraversalAfte	
accessibilityTraversalBef	
actionBarNavMode	
addStatesFromChildren	
alpha	
alwaysDrawnWithCache	
animateLayoutChanges	
animationCache	
backgroundTint	
backgroundTintMode	
clickable	
clipChildren	
clipToPadding	

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (yesterday 22:27)

n/a Context: <no context>

1: Project | 7: Structure | Captures | 2: Favorites | Build Variants | Memory View | Gradle | Android Model | Device Explorer

fragment_main.xml - HeroMe - [~/Dropbox/htl/skripten/themen/android/udemyAndroidN/HeroMe/HeroMe] - Android Studio 2.4 Preview 3

HeroMe › app › src › main › res › layout › fragment_main.xml

fragment_main.xml | hero_solid_button.xml

Palette

- All
- Widgets
- Text
- Layouts
- Containers
- Images
- Date
- Transitions
- Advanced
- Google
- Design
- AppCompat

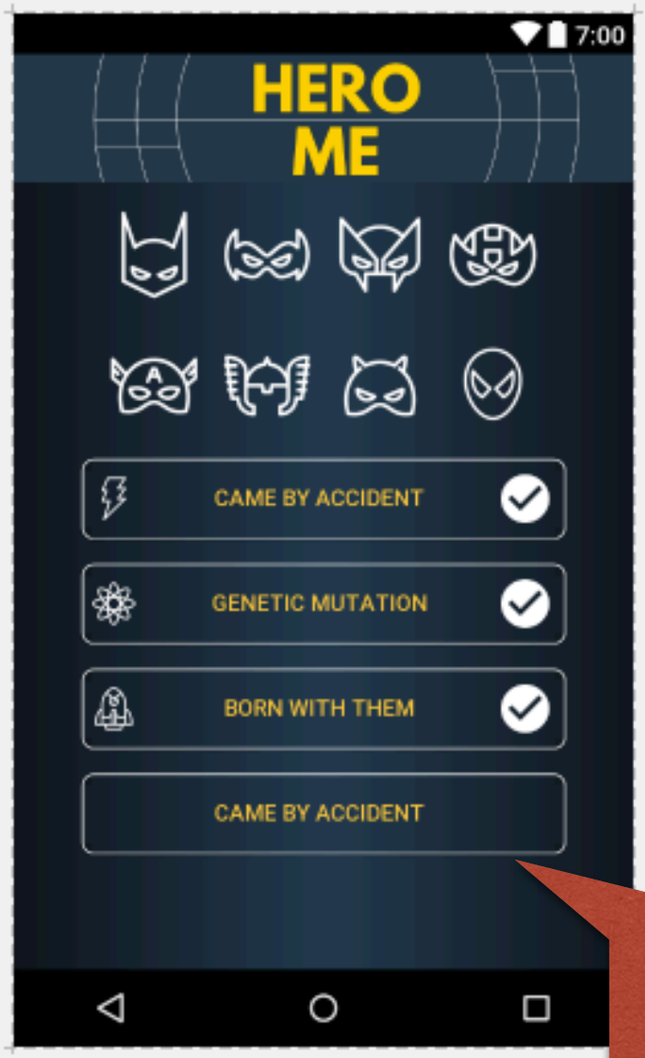
- TextView
- Button
- ToggleButton
- CheckBox
- RadioButton
- CheckedTextView
- Spinner
- ProgressBar
- ProgressBar (Horizontal)
- SeekBar
- SeekBar (Discrete)
- QuickContactBadge
- RatingBar

Button

Component Tree

- FrameLayout
  - LinearLayout (vertical)
    - toolbar
    - imageView
    - button - "Came By Accident"
    - button2 - "Genetic mutation"
    - button3 - "Born with them"
    - button4 - "Came By Accident"

Nexus 4 | 25 | NoActionBar | 33%



Properties

id	button4
layout_width	300dp
layout_height	50dp
Layout_Margin	[?, ?, 15dp, ?, ?]
Padding	[?, 5dp, ?, 10dp, ?]
Theme	
elevation	
background	@drawable/hero_button
drawableLeft	
drawableRight	
layout_gravity	[center_horizontal]
text	Came By Accident
textColor	#FAC740
accessibilityLiveRegion	
accessibilityTraversalAfte	
accessibilityTraversalBef	
allowUndo	
alpha	
autoLink	[]
autoText	
backgroundTint	

Der unterste Button soll wieder eine eigene Hintergrundfarbe bekommen

Design | Text

Terminal | Logcat | Android Profiler | 0: Messages | TODO | Event Log | Gradle Console

Gradle build finished in 3s 411ms (yesterday 22:27) n/a Context: <no context>

hero_solid_button.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">

    <corners android:radius="7dp" ></corners>

</shape>
```

Buttons

```
<Button
    android:id="@+id/button"
    android:layout_width="300dp"
    android:layout_height="55dp"
    android:layout_gravity="center_horizontal"
    android:layout_marginTop="15dp"
    android:background="@drawable/hero_button"
    android:drawableLeft="@drawable/lightning"
    android:drawableRight="@drawable/item_selected"
    android:paddingLeft="5dp"
    android:paddingRight="10dp"
    android:text="Came By Accident"
    android:textColor="#FAC740" />

<Button
    android:id="@+id/button2"
    android:layout_width="300dp"
    android:layout_height="55dp"
    android:layout_gravity="center_horizontal"
    android:layout_marginTop="15dp"
    android:background="@drawable/hero_button"
    android:drawableLeft="@drawable/atomic"
    android:drawableRight="@drawable/item_selected"
    android:paddingLeft="5dp"
    android:paddingRight="10dp"
    android:text="Genetic mutation"
    android:textColor="#FAC740" />
```

```
<Button
    android:id="@+id/button3"
    android:layout_width="300dp"
    android:layout_height="55dp"
    android:layout_gravity="center_horizontal"
    android:layout_marginTop="15dp"
    android:background="@drawable/hero_button"
    android:drawableLeft="@drawable/rocket"
    android:drawableRight="@drawable/item_selected"
    android:paddingLeft="5dp"
    android:paddingRight="10dp"
    android:text="Born with them"
    android:textColor="#FAC740" />

<Button
    android:id="@+id/button4"
    android:layout_width="300dp"
    android:layout_height="50dp"
    android:layout_gravity="center_horizontal"
    android:layout_marginTop="15dp"
    android:background="@drawable/hero_solid_button"
    android:backgroundTint="#FAC740"
    android:paddingLeft="5dp"
    android:paddingRight="10dp"
    android:text="Choose powers"
    android:textColor="#10161D"
    android:textSize="22sp" />
```

Aufrufen eines Fragments aus der MainActivity

activity_main.xml

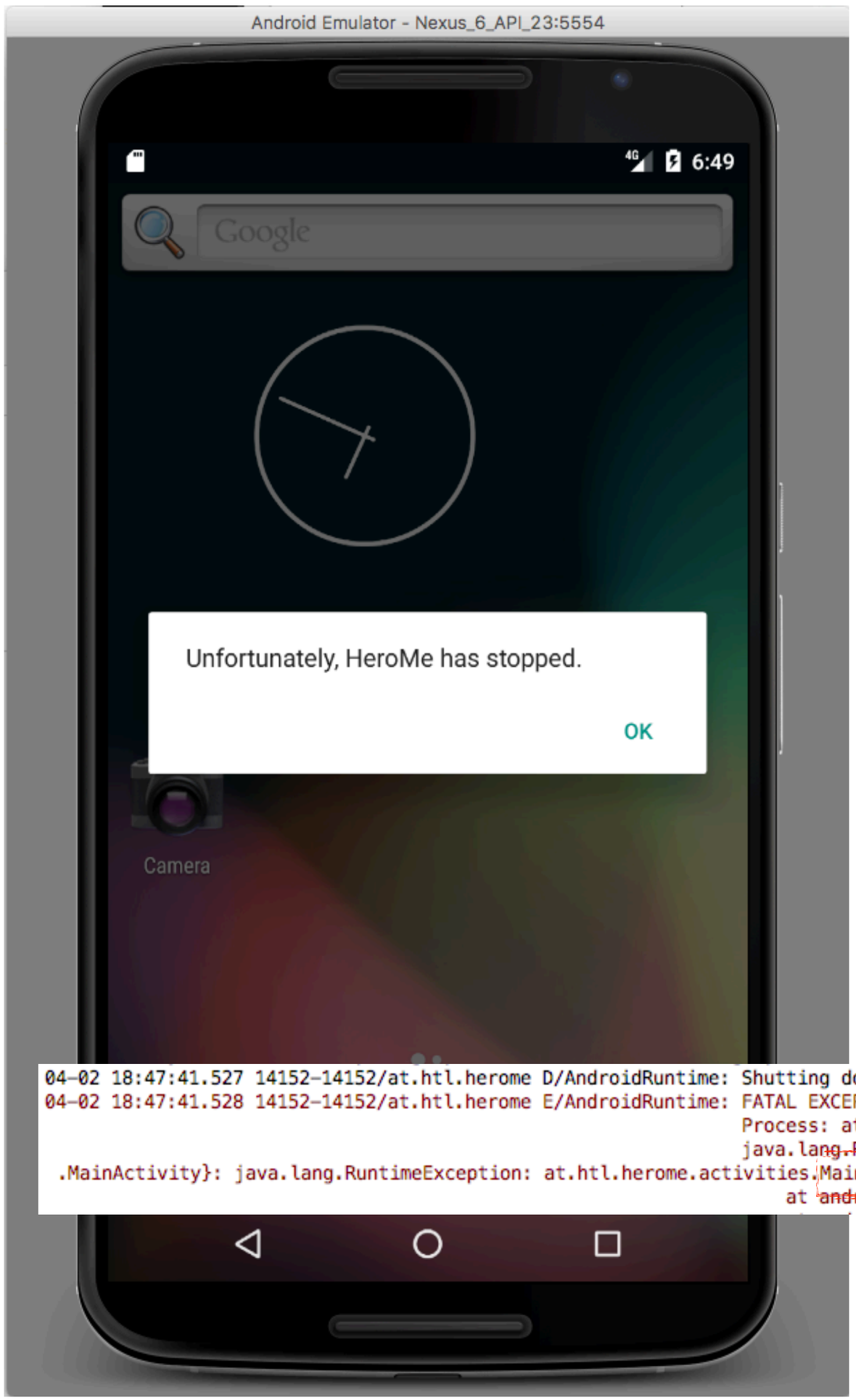
```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="at.htl.herome.activities.MainActivity">

    <FrameLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/fragment_container"
        tools:context=".activities.MainActivity">
    </FrameLayout>

</android.support.constraint.ConstraintLayout>
```

MainActivity.java

```java
package at.htl.herome.activities;

import android.support.v4.app.Fragment;
import android.support.v4.app.FragmentManager;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

import at.htl.herome.R;
import at.htl.herome.fragments.MainFragment;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        FragmentManager manager = getSupportFragmentManager();
        Fragment fragment = manager.findFragmentById(R.id.fragment_container);

        if (fragment == null) {
            fragment = new MainFragment();
            manager.beginTransaction().add(R.id.fragment_container, fragment).commit();
        }
    }
}
```

Wir verwenden „getSupportFragmentManager“ wegen der SupportLibrary

Nun starten wir die App




```
04-02 18:47:41.527 14152-14152/at.htl.herome D/AndroidRuntime: Shutting down VM
04-02 18:47:41.528 14152-14152/at.htl.herome E/AndroidRuntime: FATAL EXCEPTION: main
                                                               Process: at.htl.herome, PID: 14152
                                                               java.lang.RuntimeException: Unable to start activity ComponentInfo{at.htl.herome/at.htl.herome.activit
 .MainActivity}: java.lang.RuntimeException: at.htl.herome.activities.MainActivity@582958a must implement MainFragmentInteractionListener
                                                                   at android.app.ActivityThread.performLaunchActivity(ActivityThread.java:2416)
```

MainFragment.java

```
public class MainFragment extends Fragment {
    private static final String ARG_PARAM1 = "param1";
    private static final String ARG_PARAM2 = "param2";

    // TODO: Rename and change types of parameters
    private String mParam1;
    private String mParam2;

    private OnFragmentInteractionListener mListener;

    public MainFragment() {
        // Required empty public constructor
    }
    ...
    public interface OnFragmentInteractionListener {
        // TODO: Update argument type and name
        void onFragmentInteraction(Uri uri);
    }
```

Wir benennen das zu implementierende Interface um, damit eine sprechende Fehlermeldung erhält

MainFragment.java

```
public class MainFragment extends Fragment {

    private static final String ARG_PARAM1 = "param1";
    private static final String ARG_PARAM2 = "param2";

    // TODO: Rename and change types of parameters
    private String mParam1;
    private String mParam2;

    private MainFragmentInteractionListener mListener;

    public MainFragment() {
        // Required empty public constructor
    }
    …
    public interface MainFragmentInteractionListener {
        // TODO: Update argument type and name
        void onMainFragmentInteraction(Uri uri);
    }
```

Umbenennen mit Refactoring !!!
So werden alle vorkommen im Code berücksichtigt

MainActivity.java × | MainFragment.java ×

MainActivity

```
1  package at.htl.herome.activities;
2
3  import android.support.v4.app.Fragment;
4  import android.support.v4.app.FragmentManager;
5  import android.support.v7.app.AppCompatActivity;
6  import android.os.Bundle;
7
8  import at.htl.herome.R;
9  import at.htl.herome.fragments.MainFragment;
10
11 public class MainActivity extends AppCompatActivity implements MainFragment.MainFragmentInteractionListener {
12
13     @Override
14     protected void onCre                dInstanceStat
15         super.onCreate(s                te);
16         setContentView(R                y_main);
17
18         FragmentManager                 pportFragment
19         Fragment fragmen                dFragmentById
20
21         if (fragment == null) {
22             fragment = new MainFragment();
23             manager.beginTransaction().add(R.id.frag
24         }
25     }
26 }
27
```

^O

Select Methods to Override/Implement

Search for: onMain

- checkCallingUriPermission(uri:Uri, modeFlag
- checkCallingOrSelfUriPermission(uri:Uri, modeFlags:int):int
- checkUriPermission(uri:Uri, readPermission:
- enforceUriPermission(uri:Uri, pid:int, uid:int,
- enforceCallingUriPermission(uri:Uri, modeFla
- enforceCallingOrSelfUriPermission(uri:Uri, m
- enforceUriPermission(uri:Uri, readPermissio
- createPackageContext(packageName:String,
- createConfigurationContext(overrideConfigu
- createDisplayContext(display:Display):Conte
- isRestricted():boolean
- createDeviceProtectedStorageContext():Con
- isDeviceProtectedStorage():boolean

▼ android.content.Context

- registerComponentCallbacks(callback:Comp
- unregisterComponentCallbacks(callback:Cor

▼ java.lang.Object

- hashCode():int
- equals(obj:Object):boolean
- clone():Object
- toString():String
- finalize():void

▼ at.htl.herome.fragments.MainFragment.MainFragm

- onMainFragmentInteraction(uri:Uri):void

☐ Copy JavaDoc

☑ Insert @Override

Cancel | OK

Memory View | Gradle | Android Model | Device Explorer

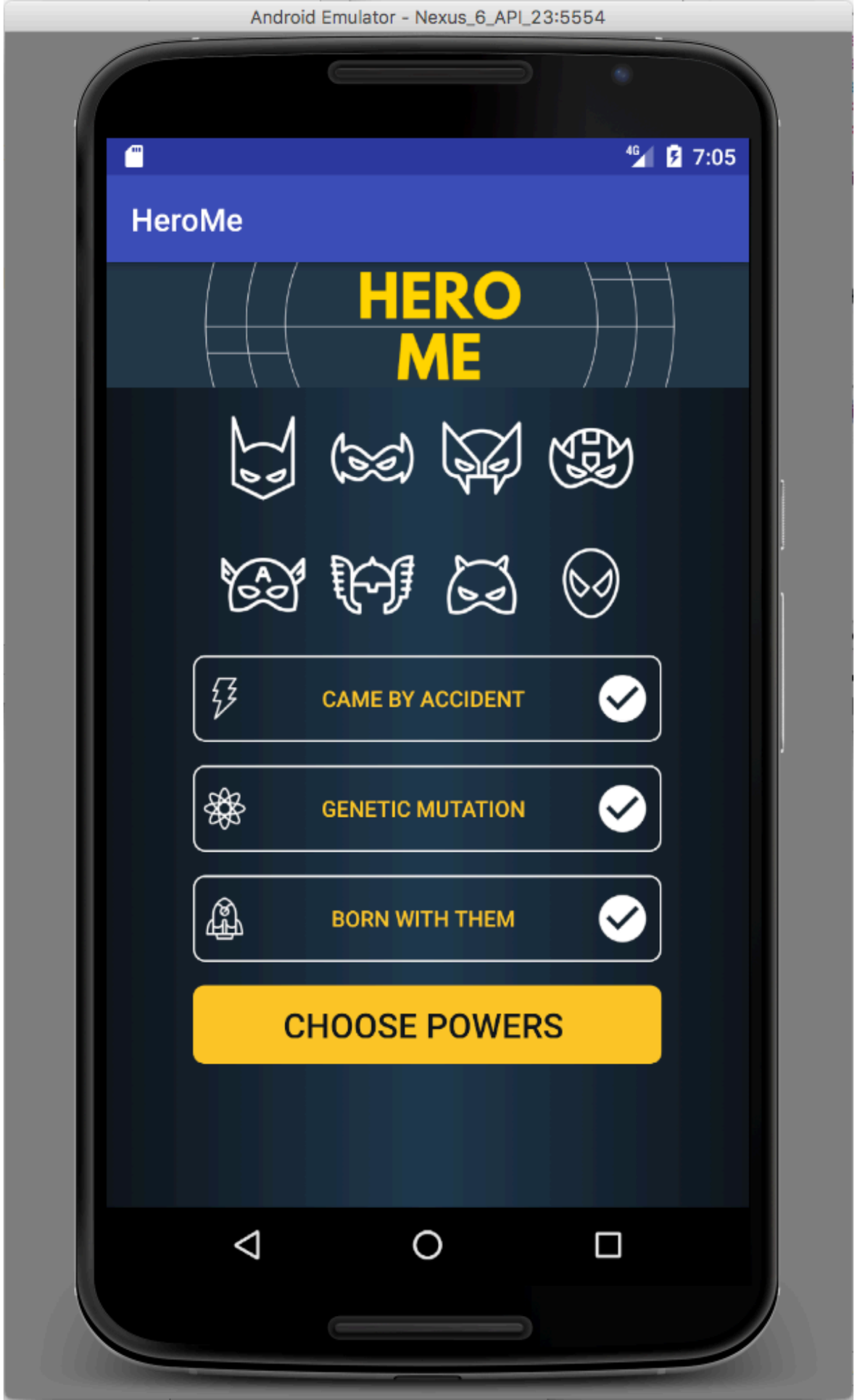
Terminal | 0: Messages | Gradle Console

MainActivity.java

MainActivity › onMainFragmentInteraction()

```java
package at.htl.herome.activities;

import android.net.Uri;
import android.support.v4.app.Fragment;
import android.support.v4.app.FragmentManager;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

import at.htl.herome.R;
import at.htl.herome.fragments.MainFragment;

public class MainActivity extends AppCompatActivity implements MainFragment.MainFragmentInteractionListener {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        FragmentManager manager = getSupportFragmentManager();
        Fragment fragment = manager.findFragmentById(R.id.fragment_container);

        if (fragment == null) {
            fragment = new MainFragment();
            manager.beginTransaction().add(R.id.fragment_container, fragment).commit();
        }
    }

    @Override
    public void onMainFragmentInteraction(Uri uri) {

    }
}
```

Nun funktionierts!!!



Allerdings wollen wir (wieder mal) die ActivityBar entfernen

activity_main.xml

Palette

All
Widgets
Text
Layouts
Containers

TextView
Button
ToggleButton
CheckBox
RadioButton

1

Nexus 4
AppTheme
Language
39%
Properties

Select Theme

2

noaction

Recent
Manifest Themes
Project Themes
Material Dark
Material Light
Holo Dark
Holo Light
Device Default
Dialogs
Light
All

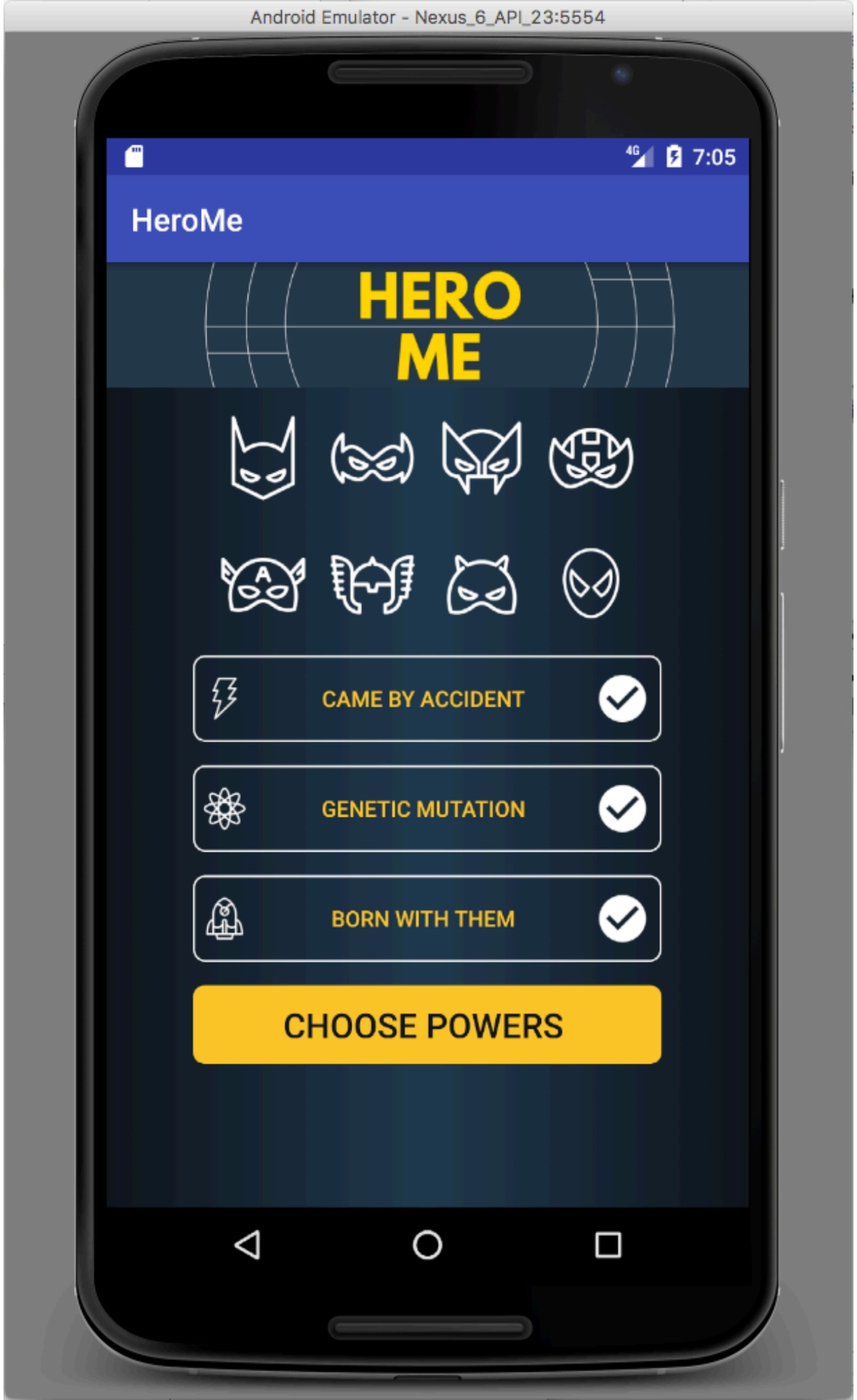
Holo.Light.NoActionBar
Holo.Light.NoActionBar.Fullscreen
Holo.Light.NoActionBar.Overscan
Holo.Light.NoActionBar.TranslucentDecor
Holo.NoActionBar
Holo.NoActionBar.Fullscreen
Holo.NoActionBar.Overscan
Holo.NoActionBar.TranslucentDecor
Material.Dialog.NoActionBar
Material.Dialog.NoActionBar.MinWidth
Material.DialogWhenLarge.NoActionBar
Material.Light.Dialog.NoActionBar
Material.Light.Dialog.NoActionBar.MinWidth
Material.Light.DialogWhenLarge.NoActionBar
Material.Light.NoActionBar
Material.Light.NoActionBar.Fullscreen
Material.Light.NoActionBar.Overscan
Material.Light.NoActionBar.TranslucentDecor
Material.NoActionBar
Material.NoActionBar.Fullscreen
Material.NoActionBar.Overscan
Material.NoActionBar.TranslucentDecor
AppCompat.DayNight.NoActionBar
AppCompat.Light.NoActionBar
AppCompat.NoActionBar

3

Cancel
OK

Design
Text

Hmm … die ActionBar ist immer noch da



styles.xml

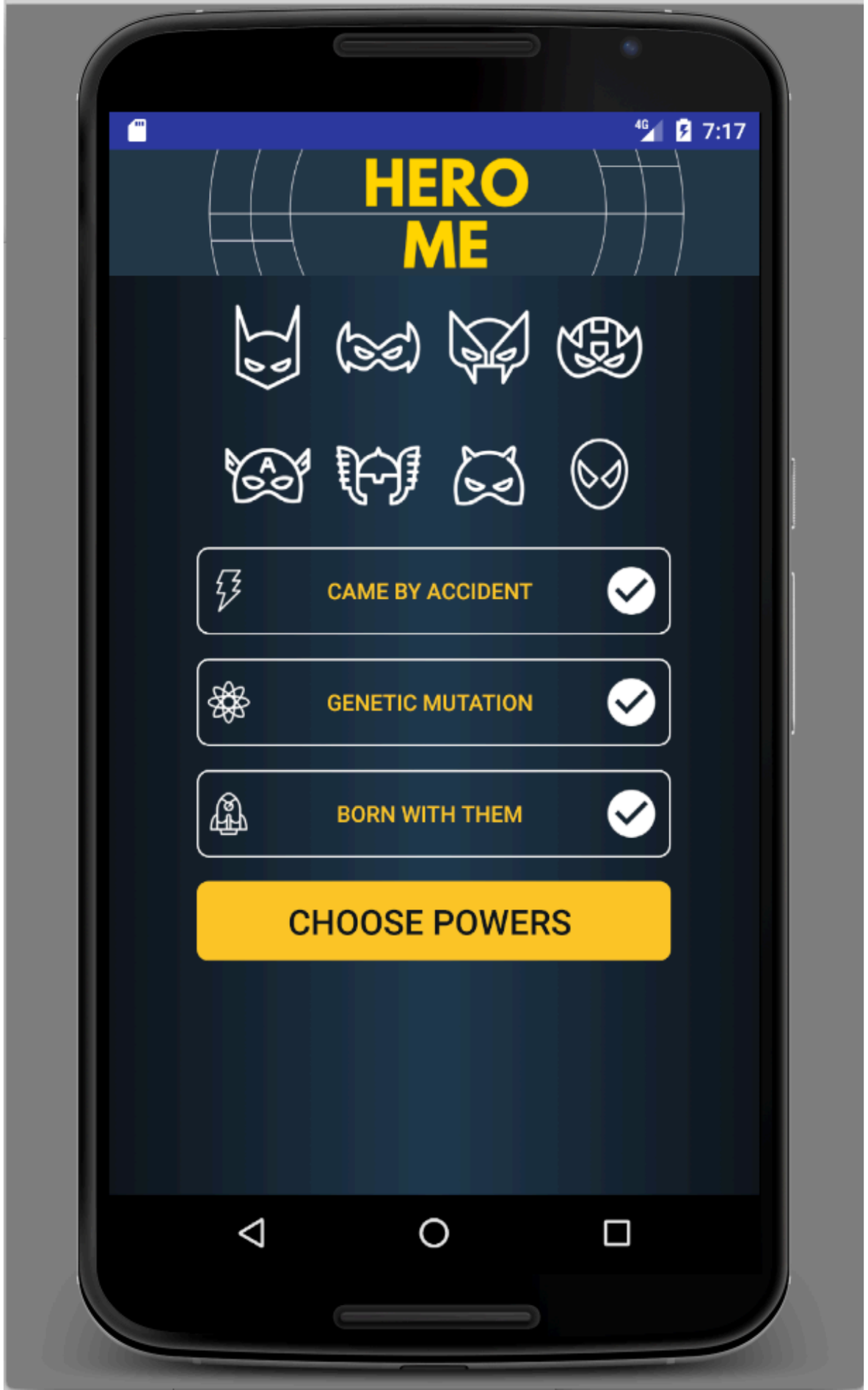
Vorher

```
<resources>

    <!-- Base application theme. -->
    <style name="AppTheme" parent="Theme.AppCompat.Light.DarkActionBar">
        <!-- Customize your theme here. -->
        <item name="colorPrimary">@color/colorPrimary</item>
        <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
        <item name="colorAccent">@color/colorAccent</item>
    </style>

</resources>
```

Nachher

```
<resources>

    <!-- Base application theme. -->
    <style name="AppTheme" parent="Theme.AppCompat.NoActionBar">
        <!-- Customize your theme here. -->
        <item name="windowNoTitle">true</item>
        <item name="windowActionBar">false</item>
        <item name="colorPrimary">@color/colorPrimary</item>
        <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
        <item name="colorAccent">@color/colorAccent</item>
    </style>

</resources>
```

Android Emulator - Nexus_6_API_23:5554



Noch Fragen?