

Share your working set up with
#MTNAppAwards #RecodeTheWorld



The Journey

Take note of these important dates of the MTN Business App Academy culminating into a hackathon.

Campus Cup Challenge

22 Jun 2021

25 Jun 2021

29 Jun 2021

27 Jul 2021

06 Aug 2021

08 Aug 2021

16 Sep 2021

Work on an app idea while learning and participating in a hackathon

Masterclass

Technical Sessions

BMC Subm.

MTN Business Hackathon

Awards

Best Hack Solution





Weekly Dose of Inspiration

Mathebe Molise

Ms Mathebe Molise

Founder / CEO, Beauty on TApp



MTN Business

MTN Business App of the Year

It's **go** *time*
everywhere you go

App
of the
Year



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Designing for Apps

A beautiful, easy to use and functionally responsive app is always an aim. In this module, you will be taken through a journey of designing an app with best practices, tools/libraries and how to aim for a best User Interface (UI) and User Experience (UX).





Today's Agenda: Module 2

1. Recap of last year's design module on MTN Business App Academy
2. Getting started
3. The purpose of design
4. Break + QNA
5. The building block of beautiful UIs on Android
 - Attributes
 - Default Style
 - Theme > Styling
6. Let's create a theme
7. Break + QNA
8. Material Design for cross-platform design
9. Break + QNA

Recap:

2020 MTN Business App Academy



Recap of last year's design session...

1. What is UX Design?
2. What is UI Design?
3. Differences between UX and UI
4. Responsibilities of a UX and UI designer, respectively
5. Tools for UX and UI (Wireframing and prototyping)
6. **Adobe XD and Android Studio Live Coding**

(UX) Research > Guessing

- It is important to think deeply about the design of your app.
- Selecting an overall design is a function of aesthetics and science magic - Jokes... Just science!
- For example, colors mean different things for specific industries, that's why chat apps and logos are blue...
- Making good design decisions that you can justify with facts leads to better results.

The Purpose of Design



Reducing the barriers between humans and computers.

- This idea speaks broadly to design within computers.
- Good design reduces the complexity of getting things done.
- UI Design specifically focuses on human-computer interactions.
- UI Design tries to make the interaction a pleasant and efficient experience for the users.
- It forces us to ask ourselves, what experience would please the end user?

BUILDING BLOCKS

The Building Blocks of Beautiful UIs in Angular



It's all key-value stores...

- Attributes:
 - Attributes are the building blocks of XML files in android. An abstraction of a simple key-value database [name: type]
- Styles
 - Styles use attributes as accessors to a globally accessible key-value store of resource to modify and change.
- Themes
 - Themes are global app styles that ensure a consistent look and feel for your app.

Attributes

The Default Android Attributes

Everything in an Android XML file is an attribute.

These are the building blocks of resource values and components.

Every attribute with an “android” prefix applies to the default android namespace and would alter the default attribute values set by the system.

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="@color/yellow" />
```


Custom Attributes

Create our own:

Start by defining a color attribute for easy reference in the application



```
<resources>
    <attr name="academybuttonbackground" format="color" />
</resources>
```

Styles

Custom style from attributes

Then assign a color to a style in the themes.xml resource file

```
<style name="Theme.MyApp">
    <item name="academybuttonbackground">@color/yellow</item>
</style>
```



Styles

Custom style from attributes

Now the styled attribute is usable within the application.



```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="?attr/academybuttonbackground" />
```

Themes

Creating our own

You can start creating our own theme, which inherits the default styles from Android.



```
<resources xmlns:tools="http://schemas.android.com/tools">
    <!-- Base application theme. -->
    <style name="Theme.AppAcademyTheme"
parent="Theme.AppCompat.DayNight.DarkActionBar">
        ...
        <item
name="android:buttonStyle">@style/AppAcademyButton</item>
        </style>

        <style name="AppAcademyButton" parent="Widget.AppCompat.Button">

            <item name="android:backgroundTint">@color/yellow</item>
        </style>
    </resources>
```


Material Design

A Universal Approach to Design



You don't have to do EVERYTHING yourself...

- Material Design is an experience and design language for software
- It encompasses a broad range of styles and themes for everyday UI components
- It is preferred Android theme.
- It's beautiful and well-thought - with micro-interactions and subtle, tested, and pleasing behaviour animations
- You should use it. Works in React Native and Flutter.

Week 3 Exercise

1. Create a WireFrame for your app and submit.
2. Create your own theme in the resources folder with guidance from code given:

Submit a styled app (from week 2) with at least 3 buttons that inherited the style theme you created.

SUBMISSION DEADLINE: Sun, 11 June 2021
at 12:00PM



bit.ly/appacademy-exercise

A photograph of a white ceramic cup of coffee with steam rising from it, placed next to a tall stack of old, thick books. The scene is set on a reflective surface, creating a clear reflection of the cup and books. The background is a soft, warm light.

**“Create the
things you
wish
existed...”**

Sihle Mabaleka

bit.ly/appacademy-module2survey