

# 1½ Hour Android Bootcamp

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# The Fundamentals

## MarakanaTechTV's Android Bootcamp



<http://www.youtube.com/playlist?list=PLE08A97D36D5A255F>

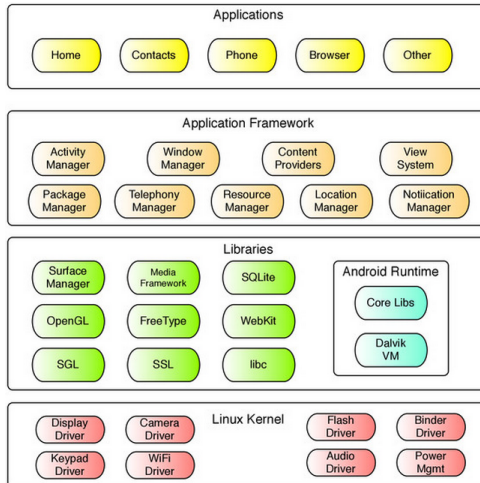
# The Fundamentals

## Android Platform

Version	API Level	Nickname
Android 1.0, 1.1	1, 2	Android
Android 1.5	3	Cupcake
Android 1.6	4	Donut
Android 2.0, 2.0.1, 2.1	5, 6, 7	Éclair
Android 2.2	8	FroYo
Android 2.3, 2.3.3	9, 10	Gingerbread
Android 3.0, 3.1, 3.2	11, 12, 13	Honeycomb
Android 4.0.2, 4.0.4	14, 15	Ice Cream Sandwich
Android 4.1.1, 4.2	16, 17	Jelly Bean
<i>Android 5.0</i>	<i>18</i>	<i>Key Lime Pie</i>

# The Fundamentals

## Android Platform



# The Fundamentals

## Android Programming



# The Fundamentals

## Android Programming



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## Android Programming

### Main Building Blocks

- Activity

# The Fundamentals

## Android Programming

### Main Building Blocks

- Activity
- Service



# The Fundamentals

## Android Programming

### Main Building Blocks

- Activity
- Service
- Broadcast Receiver

# The Fundamentals

## Android Programming

### Main Building Blocks

- Activity
- Service
- Broadcast Receiver
- Content Provider

# The Fundamentals

## Android Programming

### Main Building Blocks

- Activity
- Service
- Broadcast Receiver
- Content Provider
- Intent

# The Fundamentals

## Android Programming

### Managers

- Media

# The Fundamentals

## Android Programming

### Managers

- Media
- Internet

# The Fundamentals

## Android Programming

### Managers

- Media
- Internet
- Phone

# The Fundamentals

## Android Programming

### Managers

- Media
- Internet
- Phone
- Bluetooth

# The Fundamentals

## Android Programming

### Managers

- Media
- Internet
- Phone
- Bluetooth
- Notifications



# The Fundamentals

## Android Programming



<http://developer.android.com>

# Hello World!

## Create a new Android Application Project in Eclipse

# Hello World!

## Explore the GUI Designer

- Activities
- Layouts
- Widgets
- Toolbars
- Properties

# Hello World!

## Create and Run Hello World 0.1

# Hello World!

## Explore App Anatomy (files)

- `Manifest.xml`
- Resources in `res/`
- Java code in `src/`
- (Libraries in `libs/`)
- (Assets in `assets/`)

Hello World!

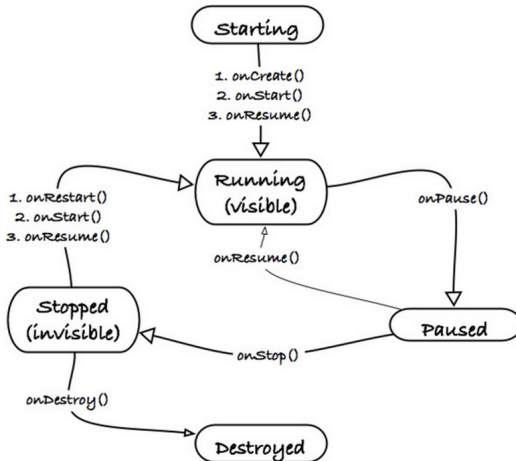
# Implement Interactivity

# Hello World!

## Implement Interactivity Hello World 0.2!

# A Real App

## Activities





# A Real App

## Activities

# Use Logcat; Live Logcat

- Log Activity Lifecycle
- TAG, you're it!

# A Real App

## Activities

# Create a 'Real' App

## A Real App

### Activities

# Our Stages of Development

- Create an Activity for scheduling the alarm

## A Real App

### Activities

# Our Stages of Development

- Create an Activity for scheduling the alarm
- Test; Log

## A Real App

### Activities

# Our Stages of Development

- Create an Activity for scheduling the alarm
- Test; Log
- Create a Service that can trigger an alarm

## A Real App

### Activities

# Our Stages of Development

- Create an Activity for scheduling the alarm
- Test; Log
- Create a Service that can trigger an alarm
- Test; Log

## A Real App

### Activities

# Our Stages of Development

- Create an Activity for scheduling the alarm
- Test; Log
- Create a Service that can trigger an alarm
- Test; Log
- Connect the two with Intents

## A Real App

### Activities

# Our Stages of Development

- Create an Activity for scheduling the alarm
- Test; Log
- Create a Service that can trigger an alarm
- Test; Log
- Connect the two with Intents
- Meh... It probably works...



## A Real App

### Activities

# Create an Activity for Scheduling the Alarm

## A Real App

### Activities

# Create an Activity for Scheduling the Alarm • Message

## A Real App

### Activities

# Create an Activity for Scheduling the Alarm

- Message
- Frequency

## A Real App

### Activities

# Create an Activity for Scheduling the Alarm

- Message
- Frequency
- Period

## A Real App

### Activities

# Create an Activity for Scheduling the Alarm

- Message
- Frequency
- Period

Add to `manifest.xml`!

## A Real App

Activities

# Create a Service that can Trigger an Alarm

## A Real App

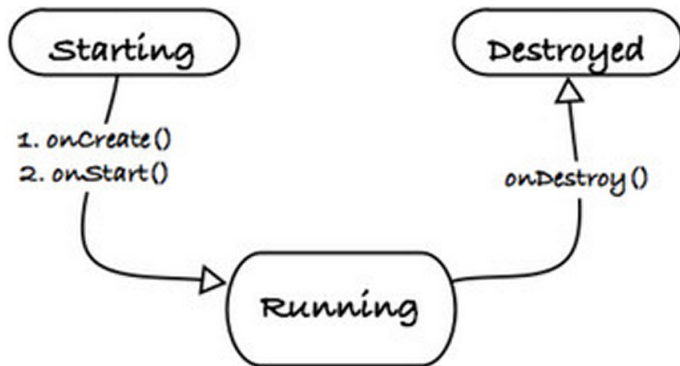
Activities

Create a Service  
that can Trigger an Alarm

Add to `manifest.xml`!

# A Real App

## Services





# A Real App

## Services

# Log Service Lifecycle

# A Real App

## Services

Try IntentService;  
it's easier...

## A Real App

Services

# Call a Notification using NotificationManager

## A Real App

Services

# Schedule the Notification using AlarmManager

## A Real App

### Intents

# Send our Alarm Information using Intent extras

# A Real App

## Intents

Do we have Time?

# A Real App

## Intents

Do we have Time?  
Feature Ideas?





## Conclusion

`www.mhelvens.net`