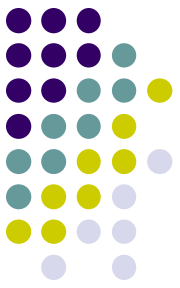# Ubiquitous and Mobile Computing CS 528:Admob Techtalk

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Background
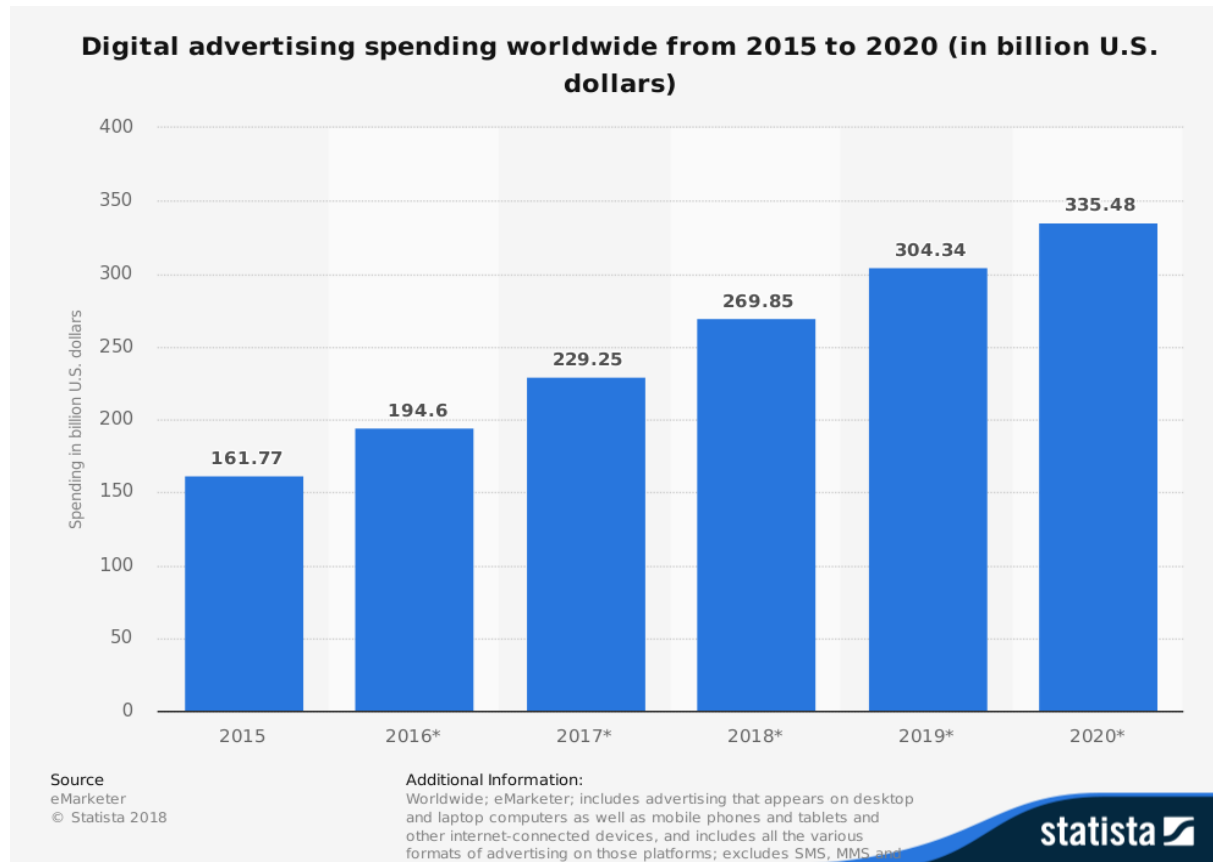
- **Advertising** is a marketing communication that employs an openly sponsored, non-personal message to promote or sell a product, service or idea.

- First Ad could be dated back to 4000 BC. Generally done through wall painting.

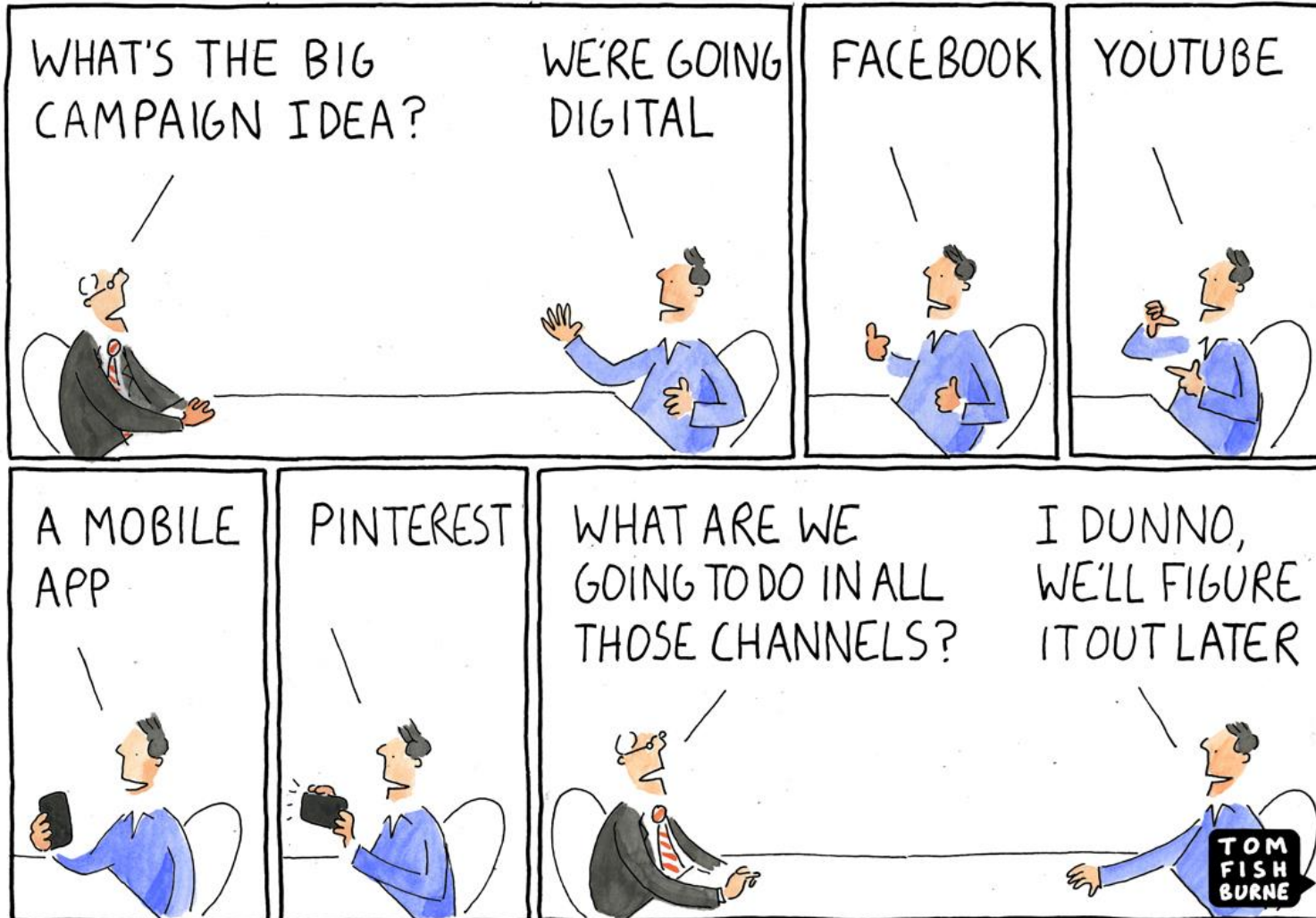- Thomas J. Barratt has been called "the father of modern advertising".

GOOD MORNING! Have you used PEARS' SOAP?

Modern Advertising

- Global advertising spending approximately 560 billion U.S. dollars
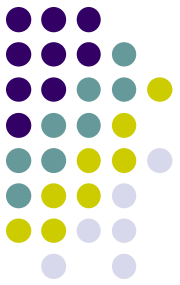- Digital ad spending to approx 270 billion U.S. dollars

Digital advertising spending worldwide from 2015 to 2020 (in billion U.S. dollars)

Year	Spending in billion U.S. dollars
2015	161.77
2016*	194.6
2017*	229.25
2018*	269.85
2019*	304.34
2020*	335.48

Source
eMarketer
© Statista 2018

Additional Information:
Worldwide; eMarketer; includes advertising that appears on desktop
and laptop computers as well as mobile phones and tablets and
other internet-connected devices, and includes all the various
formats of advertising on those platforms; excludes SMS, MMS and
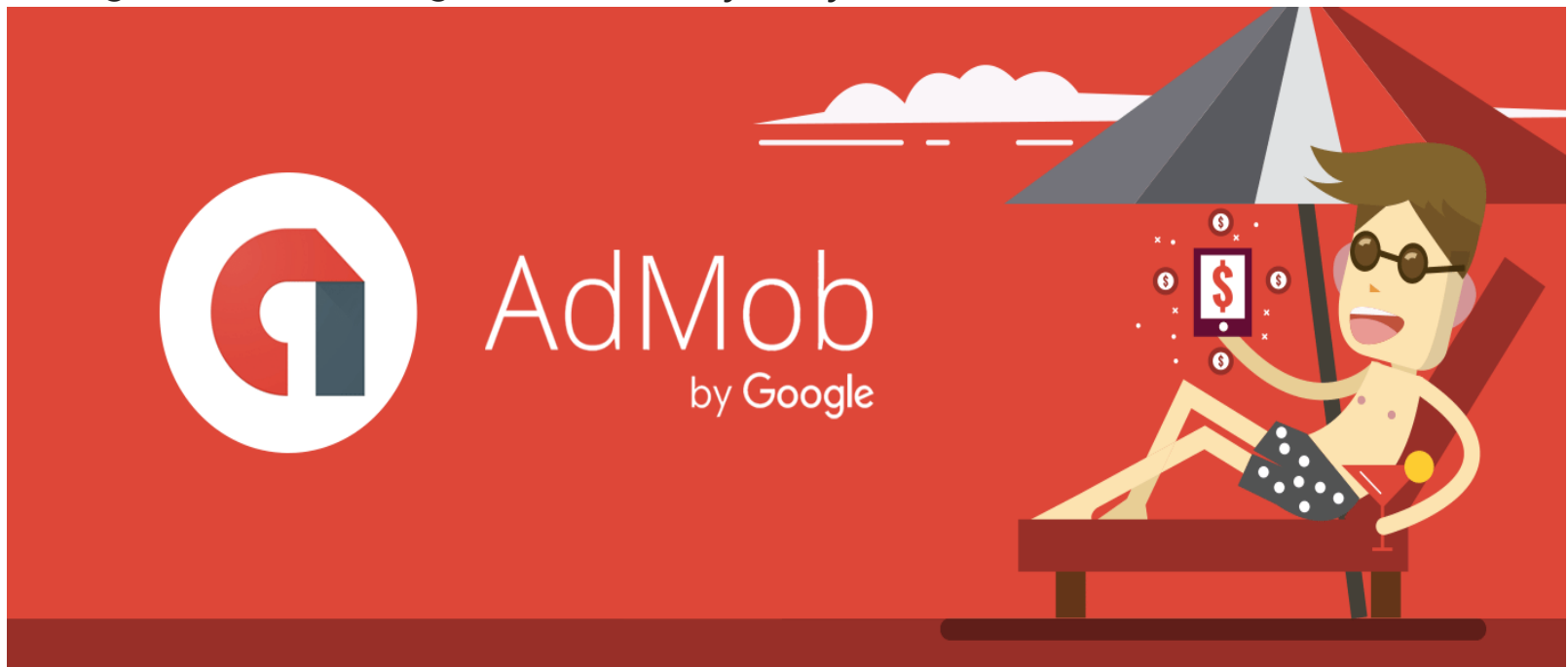
statista

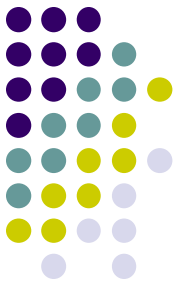# The Future of Advertisement

AdMob
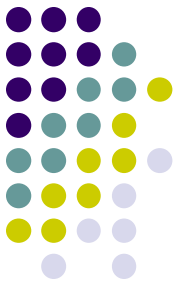
Making Sense in the madness

- Founded by Omar Hamoui in 2006 and later acquired by Google in 2009.

- An easy way to monetize mobile apps with targeted, in-app advertising.

- AdMob + Google Analytics provides app usage data & analytics capabilities.

- Plug in and let Google mint money for you.

Why in the world?

Advantages

Earn more

Use in-app advertising to show ads from millions of Google advertisers and access programmatic demand, or use AdMob Mediation to earn from 40+ networks.

Improve user experience

AdMob's native ads preserve user experience, and innovative video ads keep users engaged. Choose from many formats to suit your app.

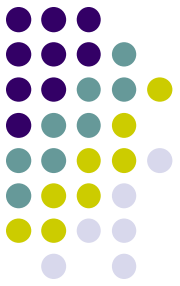## Scale fast

Get free, unlimited mobile app analytics with Google Analytics for Firebase. Scale with free house ads and tools to manage deals with advertisers.

Who are using it?

650000 apps use it.

Rovio

Rovio used AdMob to expand their Angry Birds game to the Android platform. Get insights into how they built a global brand.

Kiragames

Since deploying AdMob interstitials and AdMob Mediation, Kiragames has seen CPMs double and revenue increased by 400%.
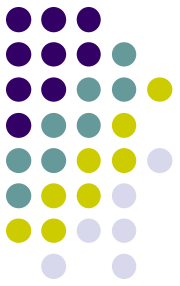
Who are using it?

MYBO

MYBO earns $1,000 per day using Google AdMob to fuel ongoing game development. Learn how they achieve results.
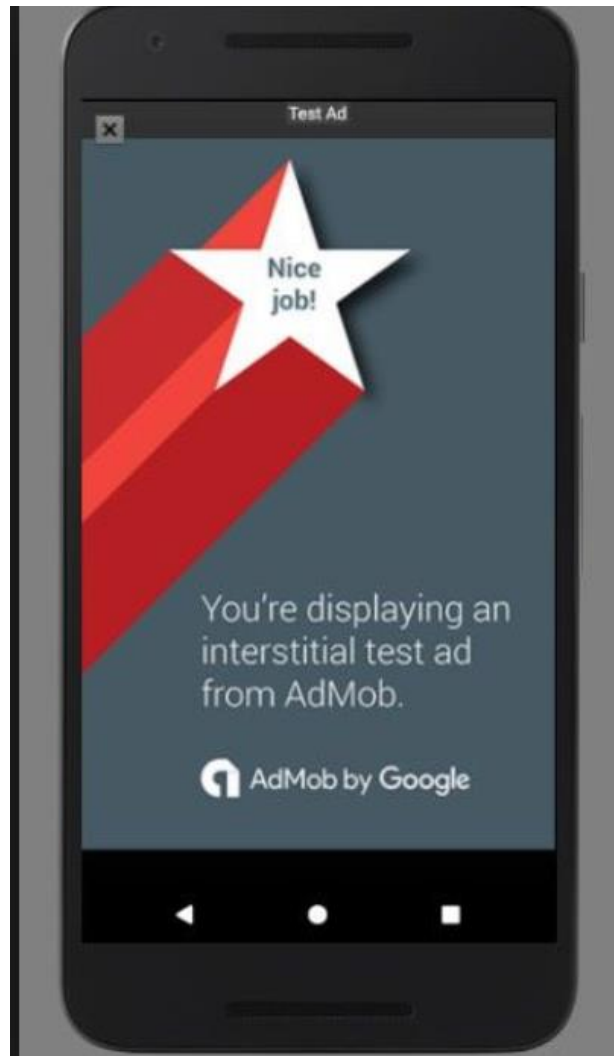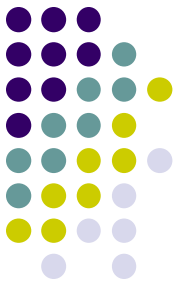
PicsArt

PicsArt earns 90% of its revenue with AdMob and is a leading free photo editing app. Learn how.
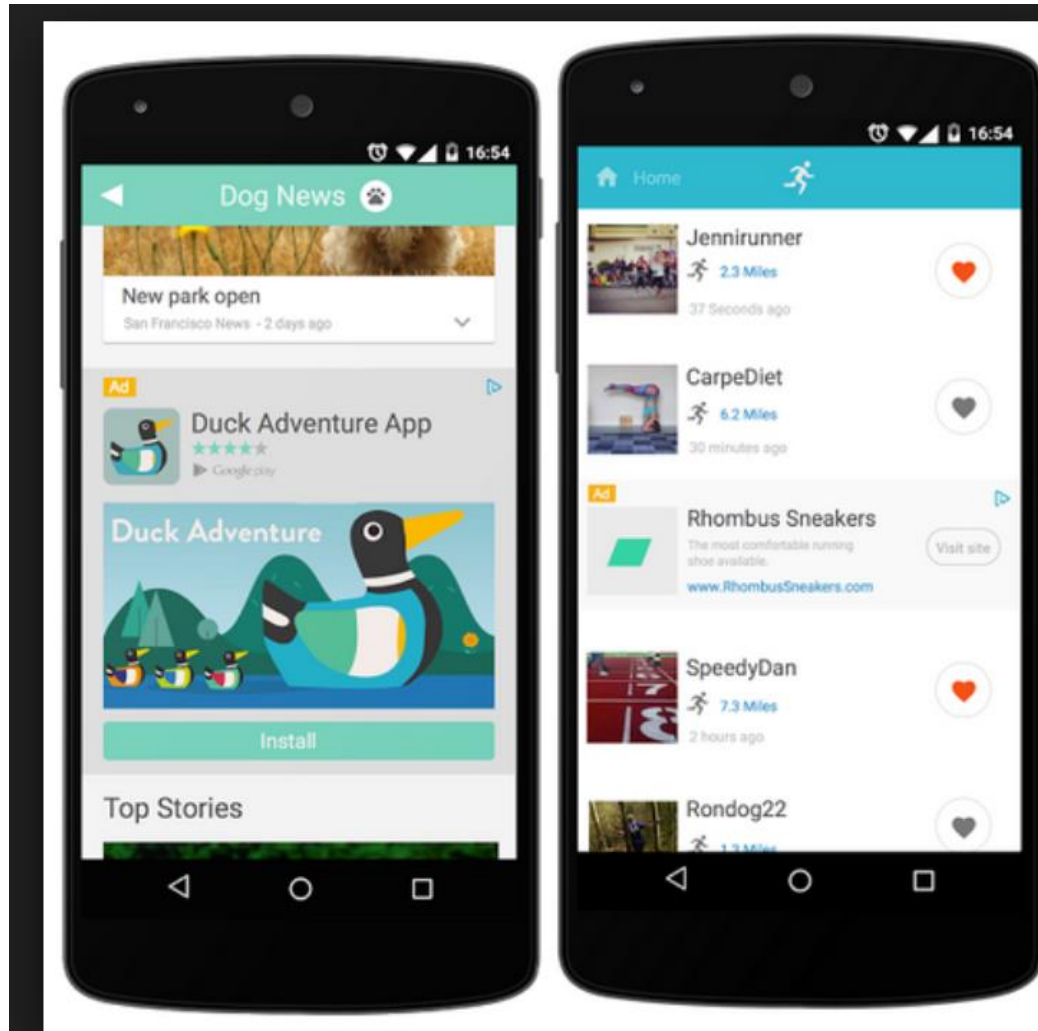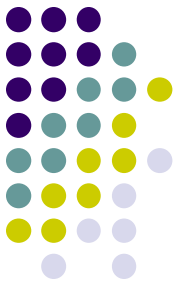
How it works?

- AdMob matches ads to your app based on criteria you set.

- These ads are created and paid for by advertisers who want to promote their products.

- Different types of Ads:

  - Banner ads
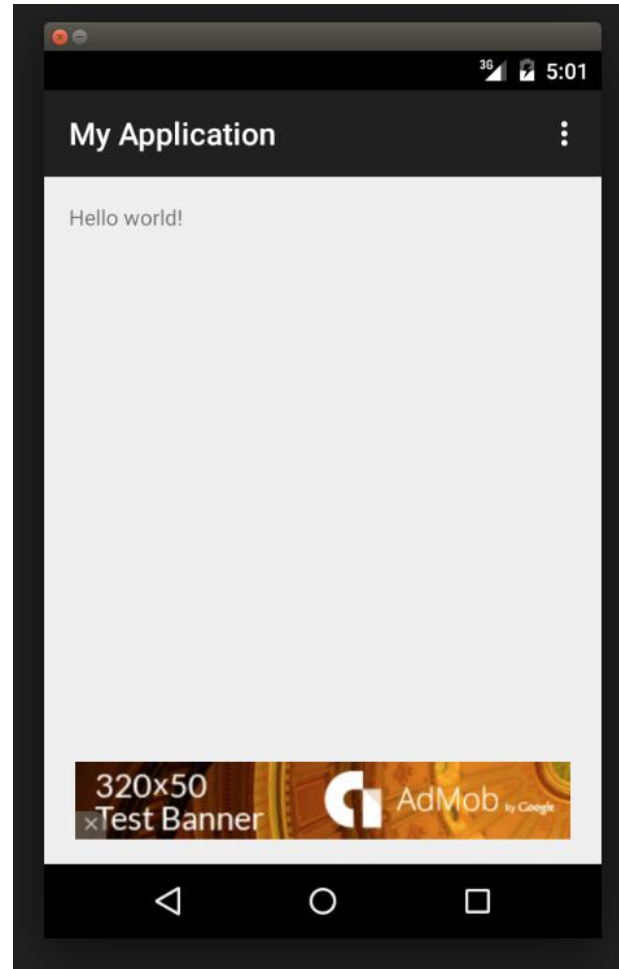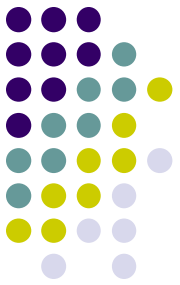
  - Interstitial ads

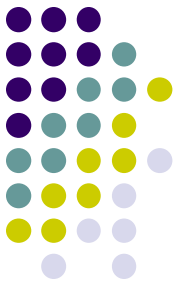 - Video ads
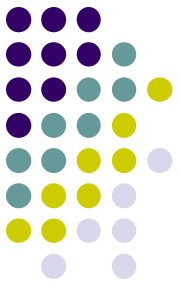
  - Native ads

Interstitial ads

Native Ads

Banner Ads

Implementation

- Add Firebase to your new or existing app in the Firebase console

- Update project dependencies

- Create a banner ad

- Create an AdMob account

Add Banner Ad to your file

```xml
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
        xmlns:tools="http://schemas.android.com/tools"
        android:layout_height="match_parent"
        android:layout_width="match_parent"
        android:paddingLeft="@dimen/activity_horizontal_margin"
        android:paddingRight="@dimen/activity_horizontal_margin"
        android:paddingTop="@dimen/activity_vertical_margin"
        android:paddingBottom="@dimen/activity_vertical_margin"
        tools:context=".MainActivity">


        <TextView android:text="@string/hello_world"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content" />


        <com.google.android.gms.ads.AdView
            xmlns:ads="http://schemas.android.com/apk/res-auto"
            android:id="@+id/adView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:layout_alignParentBottom="true"
            ads:adSize="BANNER"
            ads:adUnitId="ca-app-pub-3940256099942544/6300978111">
        </com.google.android.gms.ads.AdView>

</RelativeLayout>
```
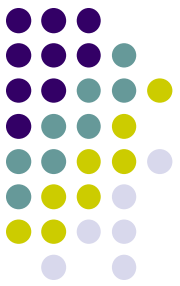
Load ad in the activity

```java
import com.google.android.gms.ads.AdRequest;
import com.google.android.gms.ads.AdView;
// ...

public class MainActivity extends AppCompatActivity {

    private static final String TAG = "MainActivity";

    private AdView mAdView;
    // ...

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

        mAdView = findViewById(R.id.adView);
        AdRequest adRequest = new AdRequest.Builder().build()
        mAdView.loadAd(adRequest);
```
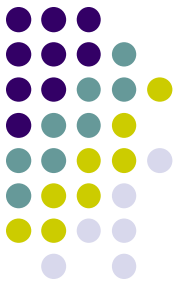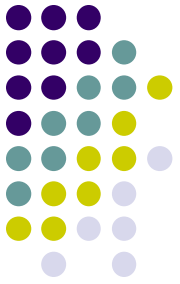
Add Ad unit ID

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    ...
    <string name="banner_ad_unit_id">ca-app-pub-3940256099942544/6300978111</string>
</resources>
```

Create Admob account
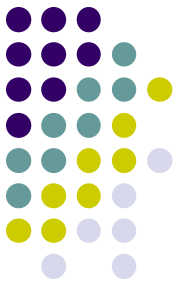
Connect your app to Admob id

- Update Android manifest.xml

```xml
<manifest>
    <application>
        <!-- Sample AdMob App ID: ca-app-pub-3940256099942544~3347511713 -->
        <meta-data
            android:name="com.google.android.gms.ads.APPLICATION_ID"
            android:value="[ADMOB_APP_ID]"/>
    </application>
</manifest>
```
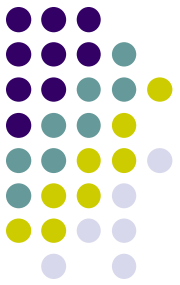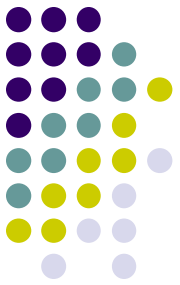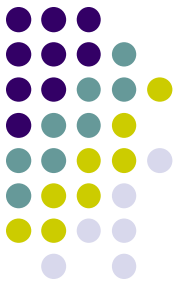
Initialize Mobile Ads SDK

```java
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    // ...
    // Sample AdMob app ID: ca-app-pub-3940256099942544~3347511713
    MobileAds.initialize(this, "YOUR_ADMOB_APP_ID");
}
```

References

- *https://firebase.google.com/docs/admob/*
- *https://console.firebase.google.com/*
- *http://www.google.com/admob/?subid=WW-EN-ET-firebase-docs&utm_source=internal&utm_medium=et&utm_campaign=firebase-docs*

Questions?