

Developing Android Wear Apps

Semih Yağcıoğlu



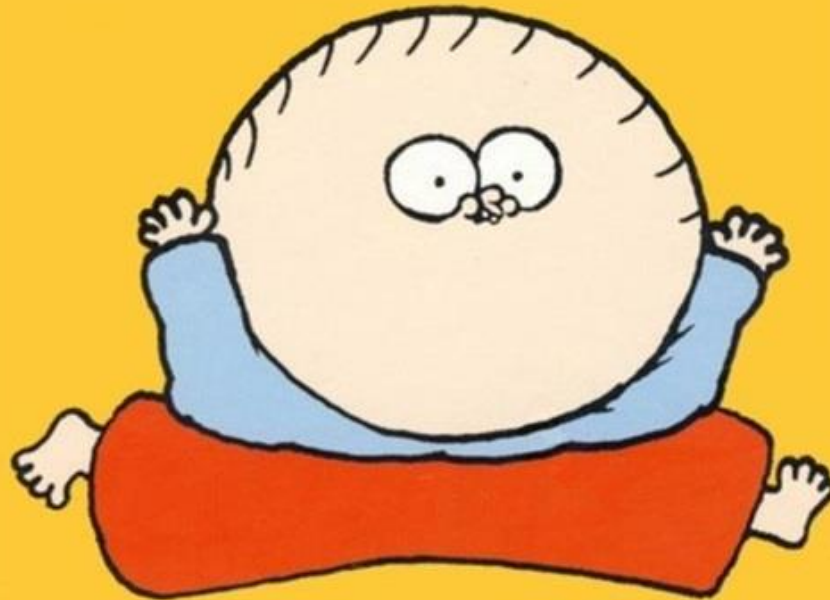
Hi

@semihyagcioglu

Wearable Devices



Enee... Saat!



Past Smartwatch



Future Smartwatch



Looks Familiar?





Not Changed
Much?

Time For a Change



Distracted?





What is
Android Wear?

Google Now

San Francisco



63°

SCATTERED
CLOUDS

5mph
10%

TUE



68°
48°

WED



67°
44°

THU



65°
48°

FRI



57°
46°

57 mins to work



Normal traffic on US - 101



Navigate / 57 mins via US - 101

Photo spots nearby



< 15 mins

Touch a photo to learn more

Why?



It Just Started!



500+



questions

400+

GitHub

repositories

10,000+



reddit

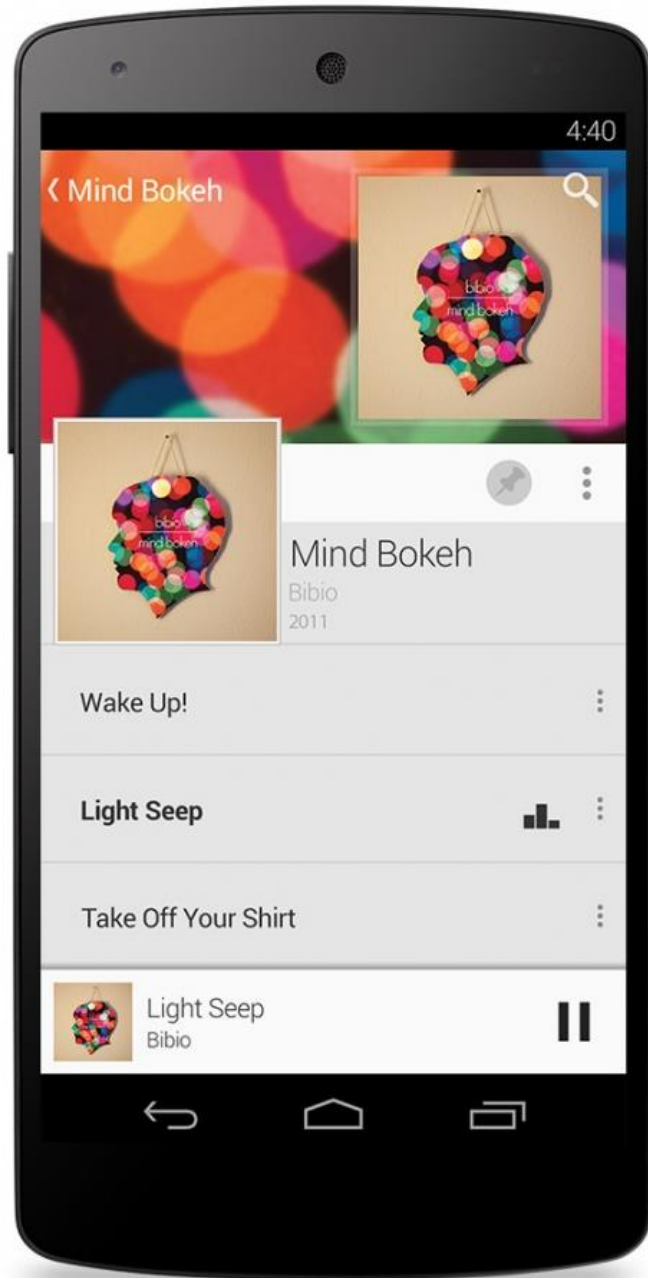
subscribers

< 200



Google play

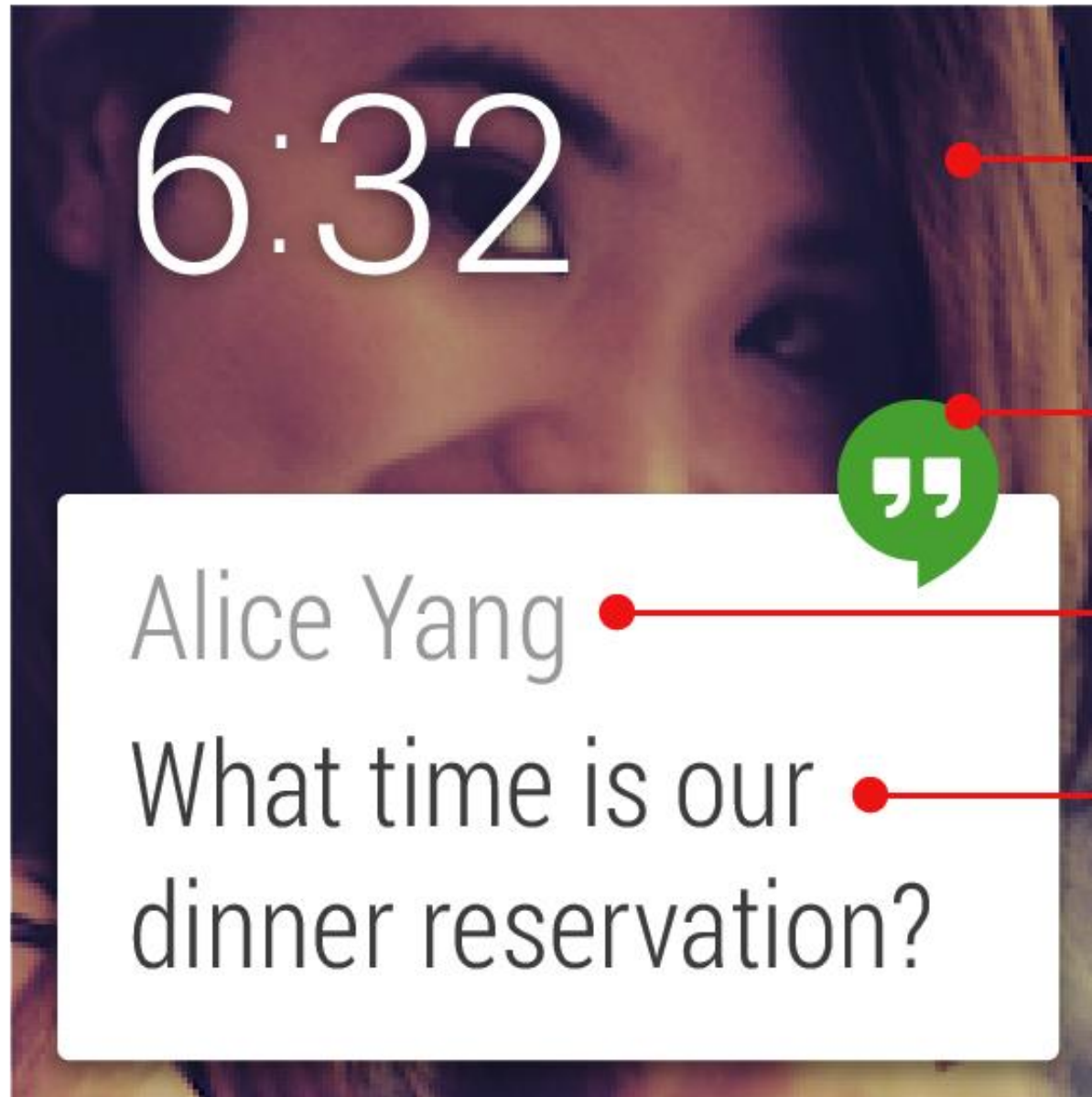
apps



Basics



UI

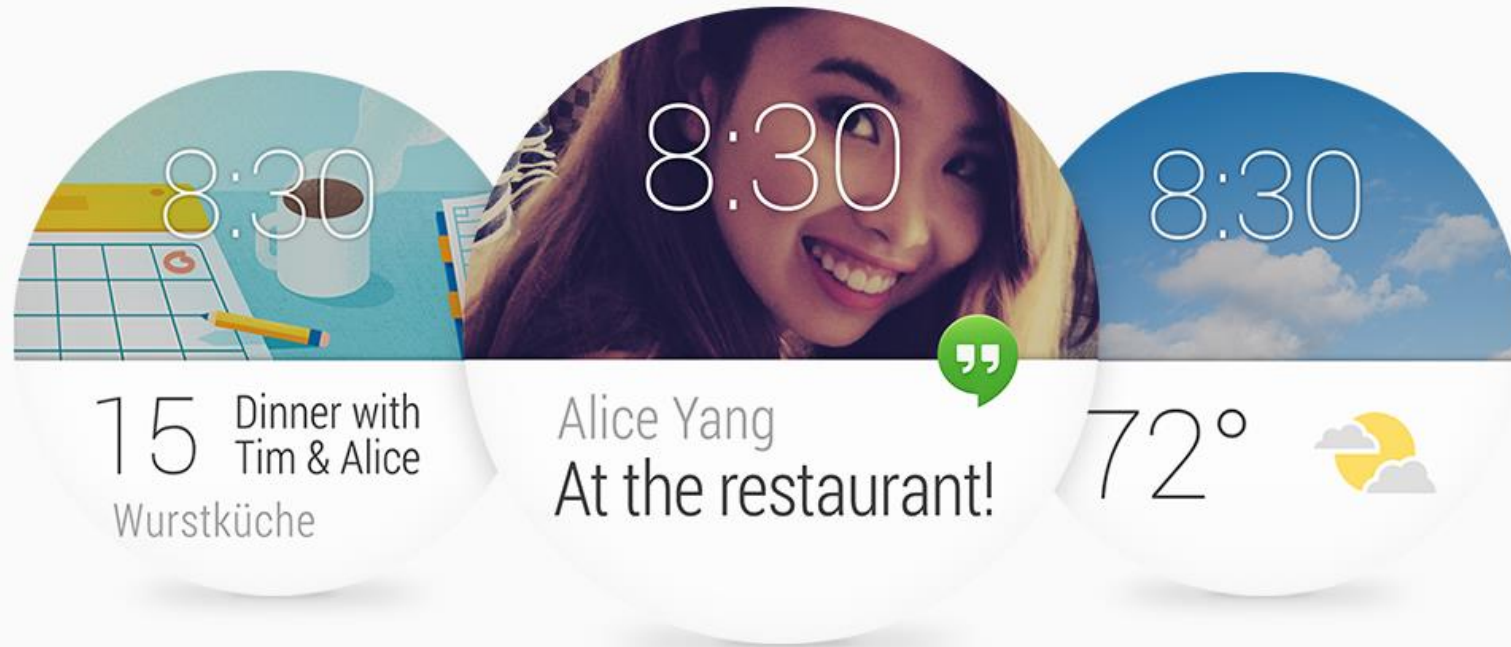


Background image

App Icon

Notification title

Notification text



UX



1 minute



2 minutes



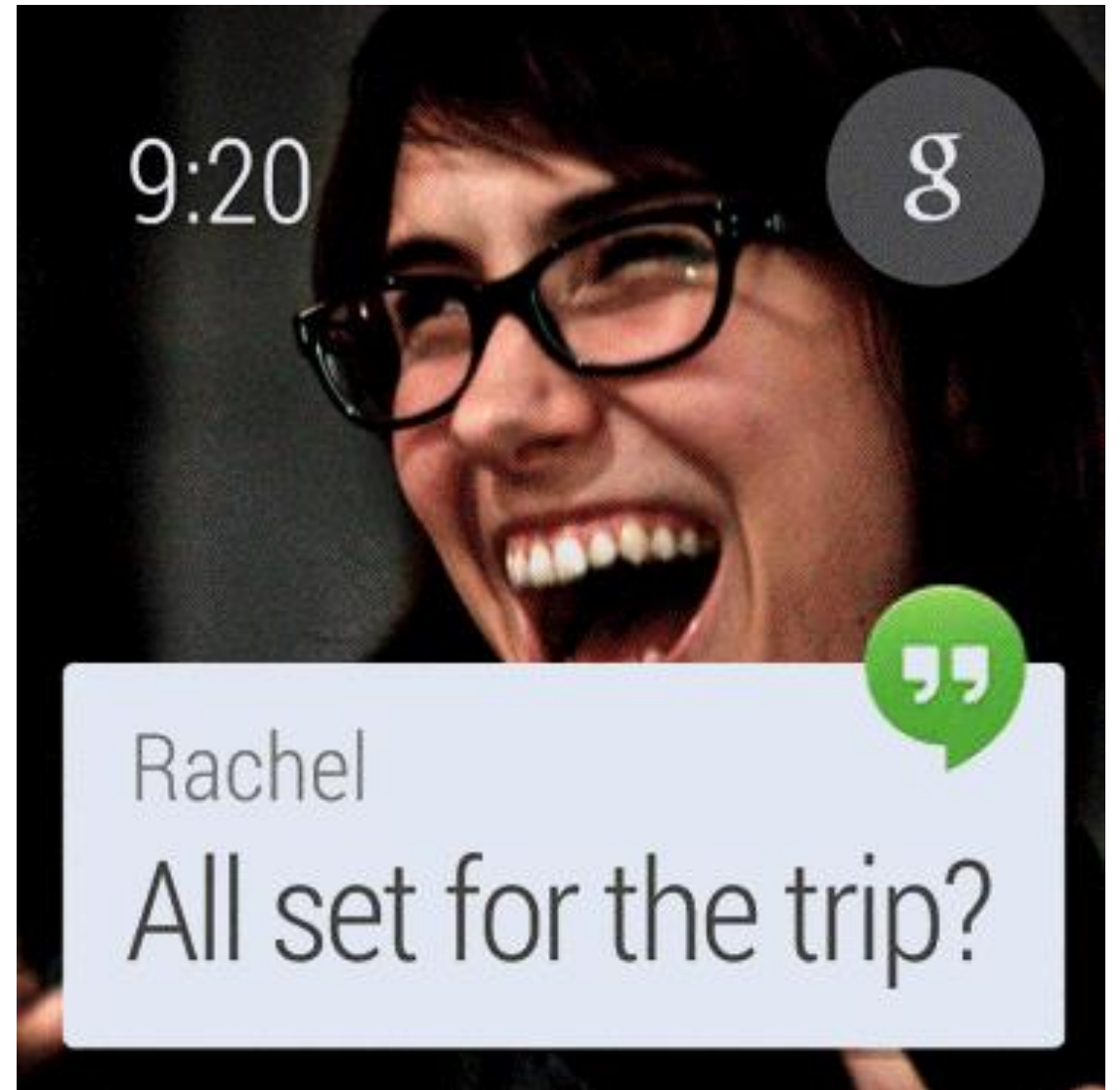
3 minutes

Go Big

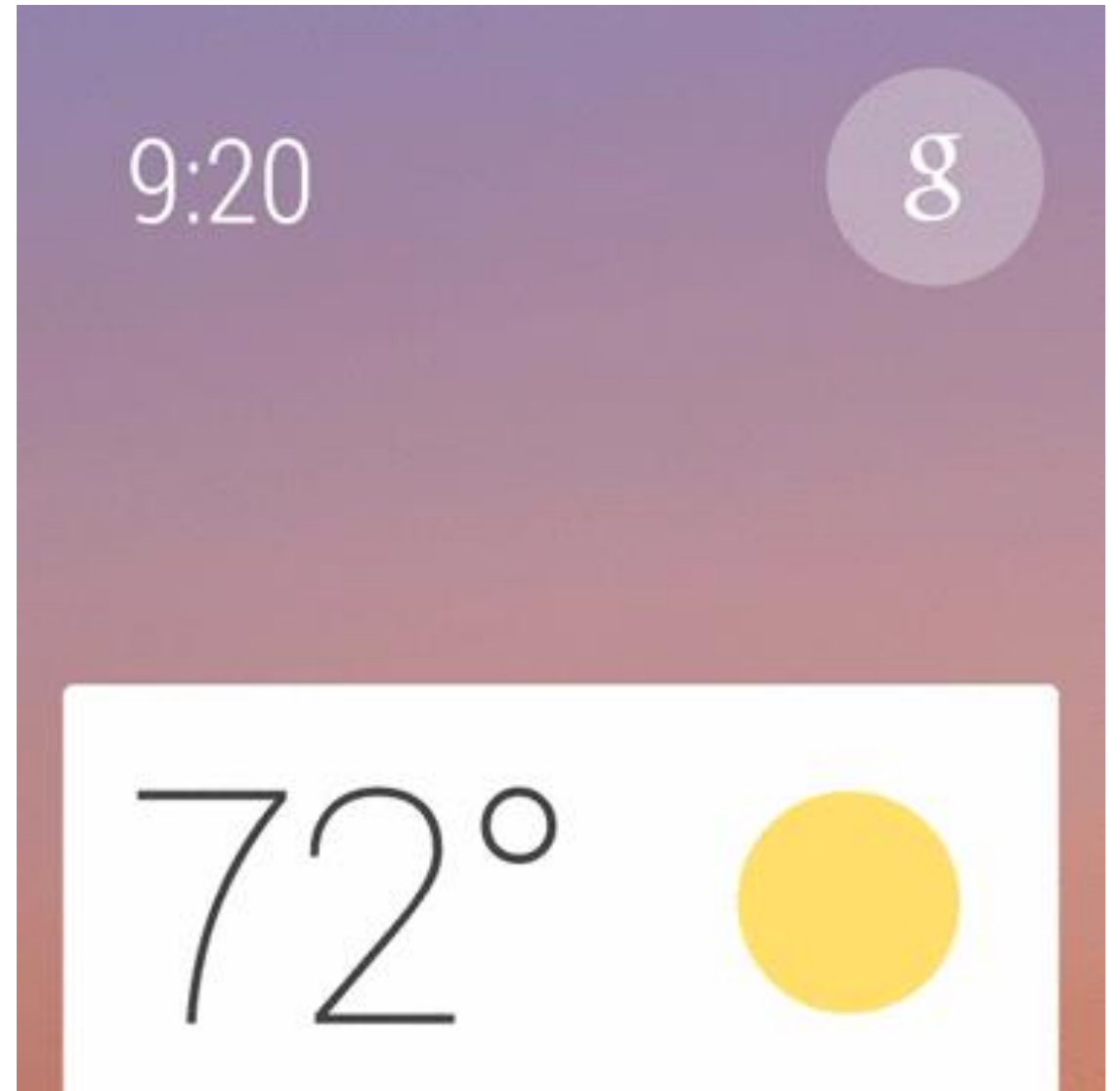
5

seconds per interaction

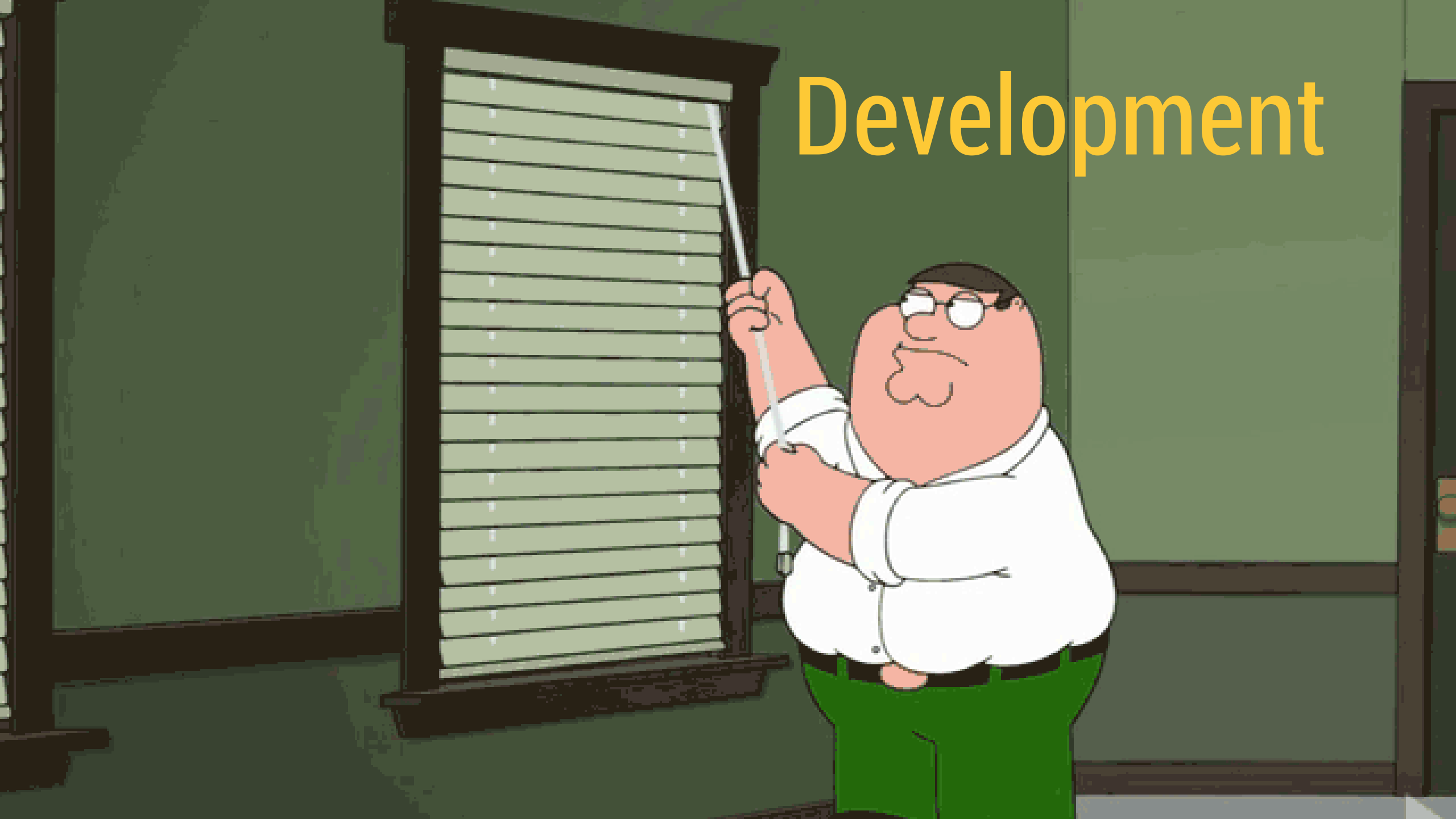
Suggest



Demand



Development



What You Can't Do



```
import webkit
```

```
import print
```

```
import app.backup
```

```
import appwidget
```

```
import hardware.usb
```

What You Can Do



What You Can Actually Do

Pretty Much Everything in Android

+

import support.wearable.*

Get Started





Android Studio



Notifications





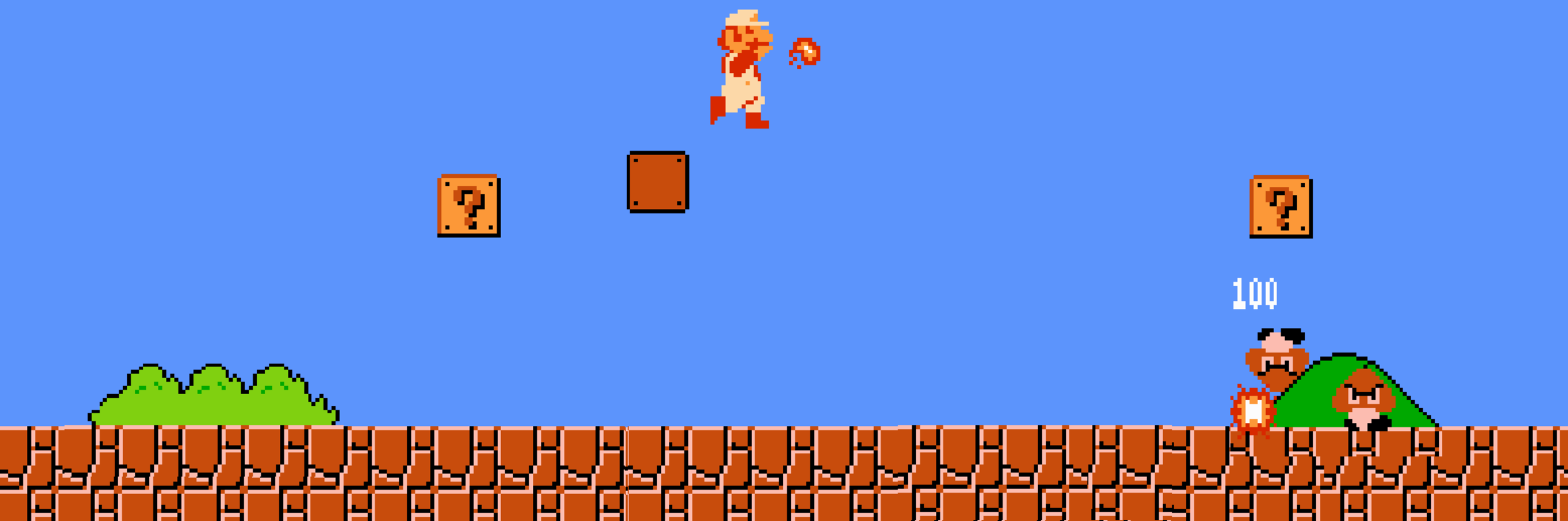
MARIO
004250

0x05

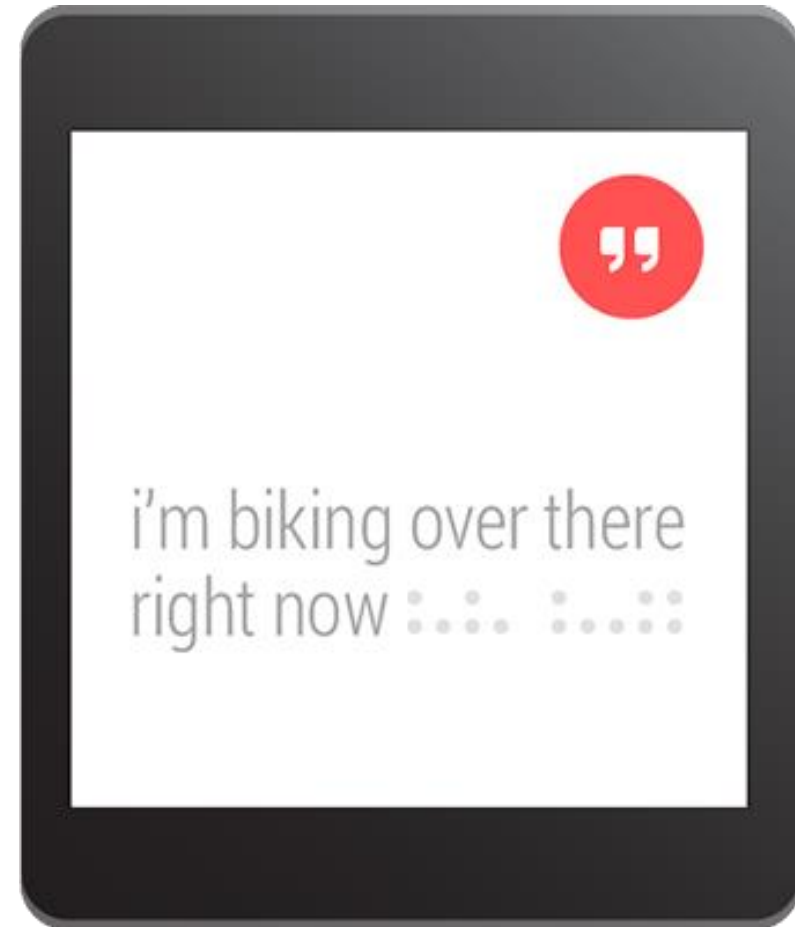
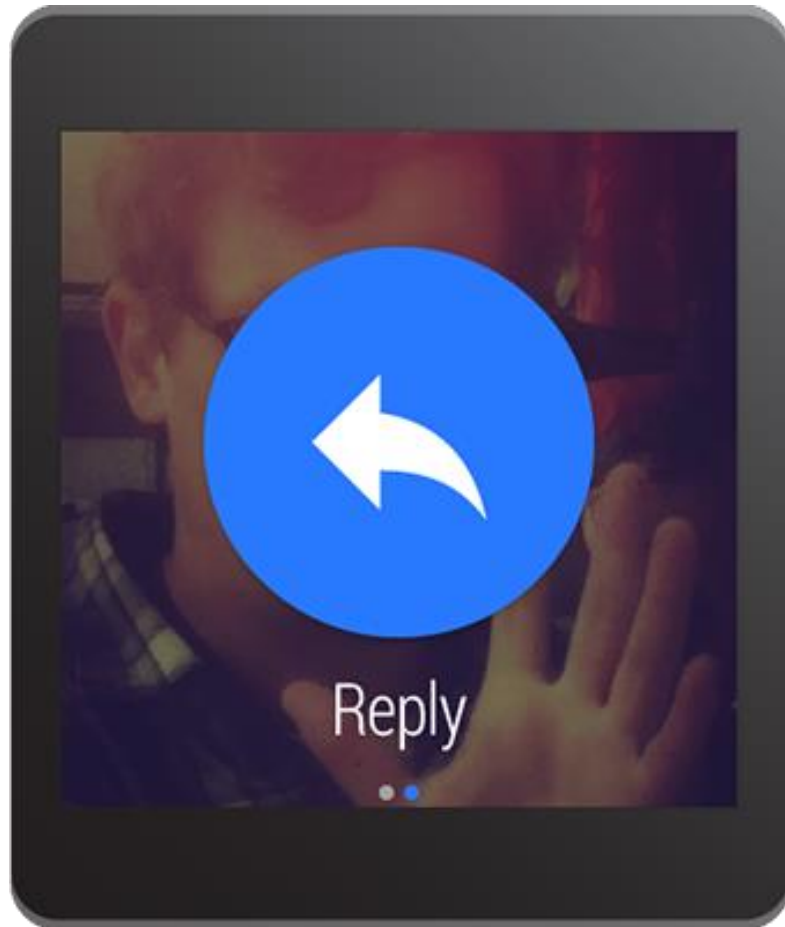
WORLD
1-1

TIME
283

Extended Notifications



Actions



Actions – Code I

// Create an intent for the reply action

```
Intent actionIntent = new Intent(this, ActionActivity.class);
```

```
PendingIntent actionPendingIntent =
```

```
    PendingIntent.getActivity(this, 0, actionIntent,
```

```
        PendingIntent.FLAG_UPDATE_CURRENT);
```

// Create the action

```
NotificationCompat.Action action =
```

```
    new NotificationCompat.Action.Builder(R.drawable.ic_action,
```

```
        getString(R.string.label), actionPendingIntent)
```

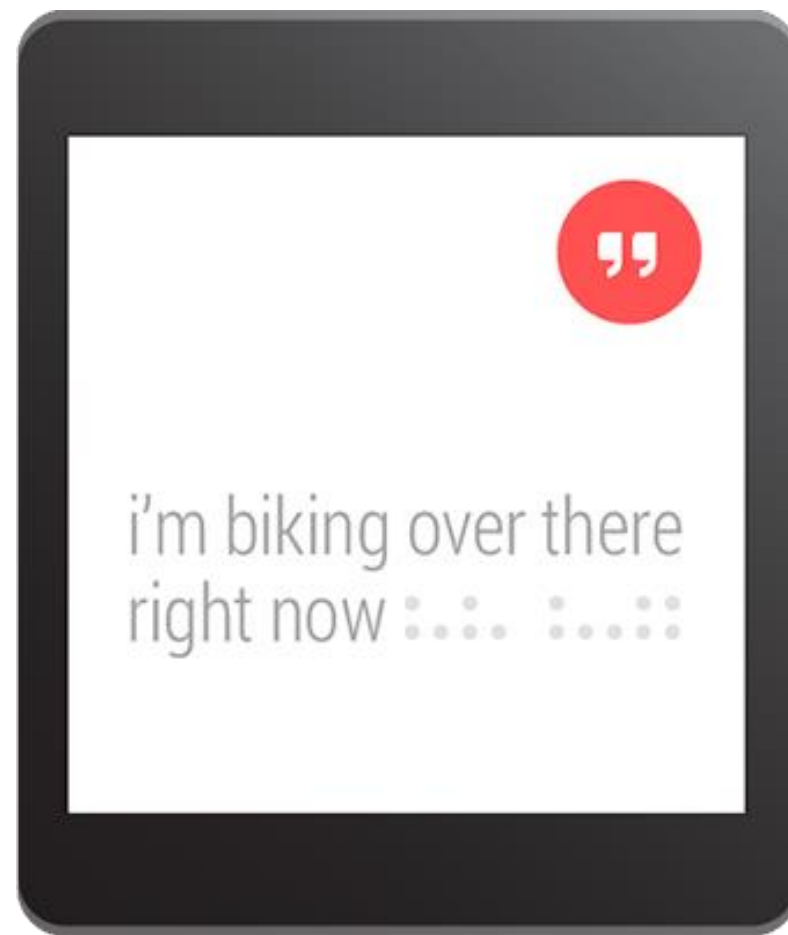
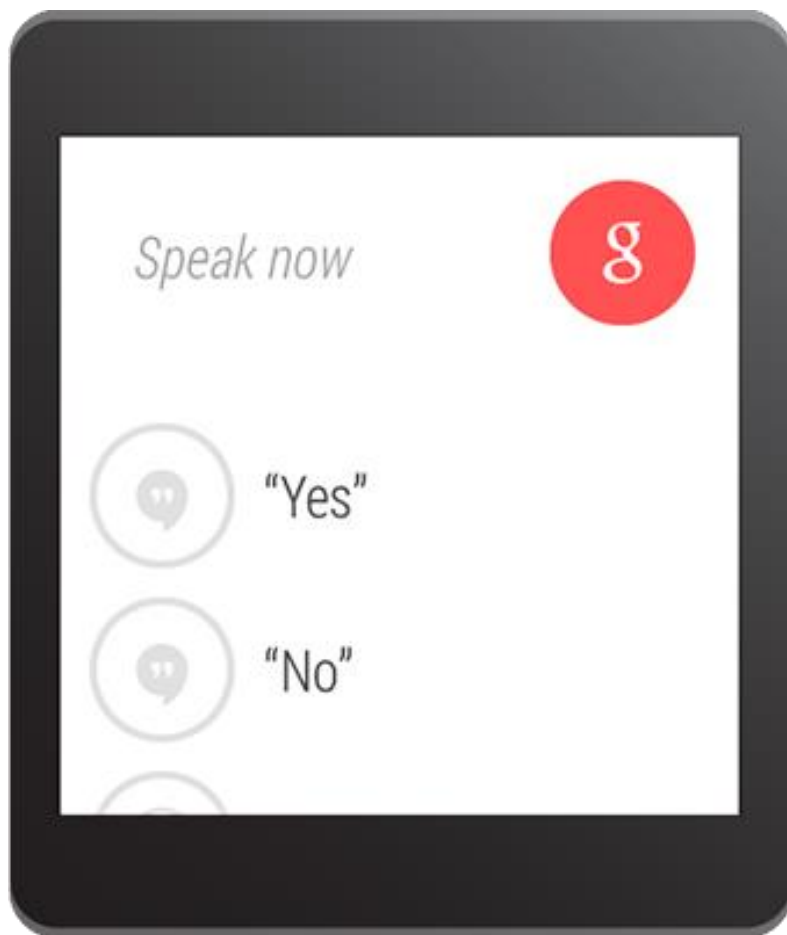
```
        .build();
```

Actions – Code II

// Build the notification and add the action via WearableExtender

```
Notification notification = new NotificationCompat.Builder(mContext)
    .setSmallIcon(R.drawable.ic_message)
    .setContentTitle(getString(R.string.title))
    .setContentText(getString(R.string.content))
    .extend(new WearableExtender().addAction(action))
    .build();
```


Voice Input

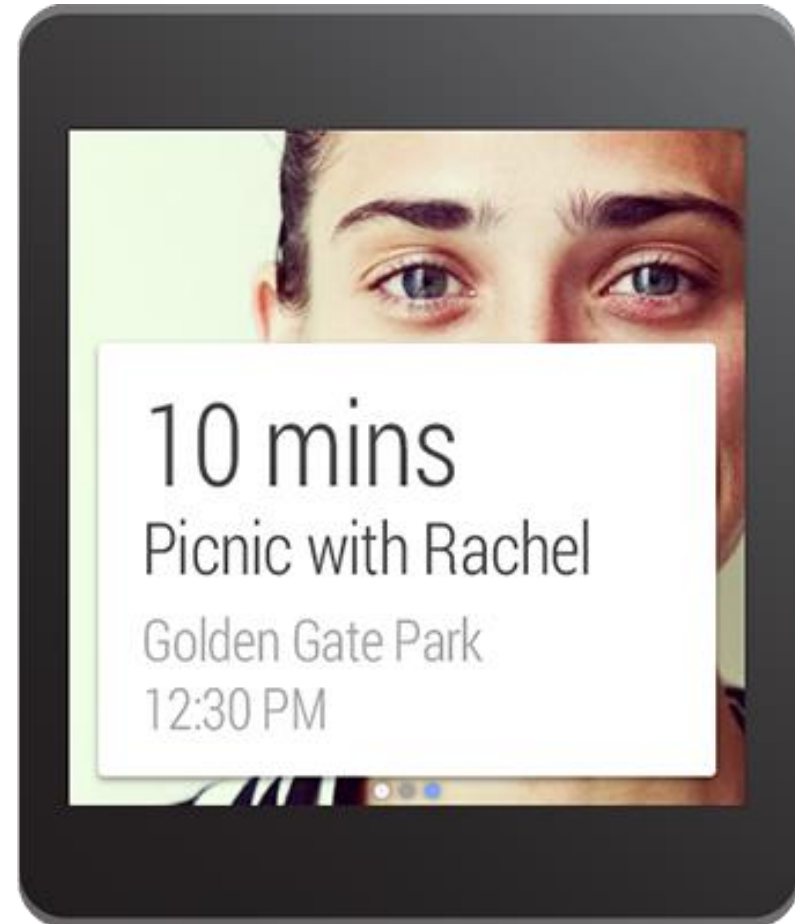
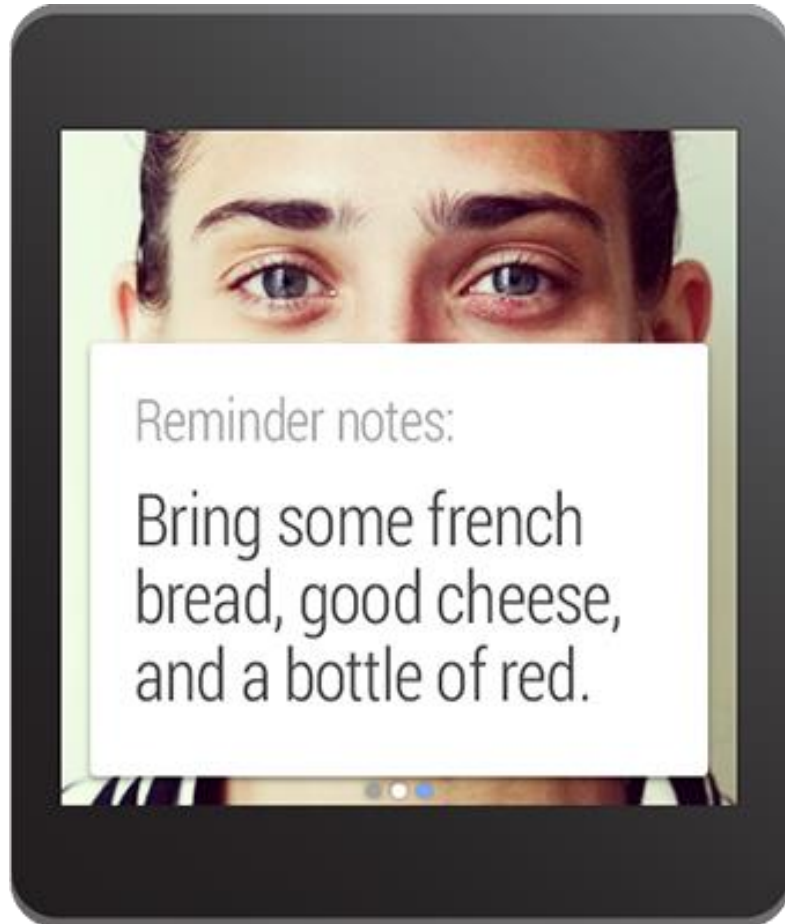


Voice Input – Code I

/* Obtain the intent that started this activity by calling Activity getIntent() and pass it into this method to get the associated voice input string.*/

```
private CharSequence getMessageText(Intent intent) {  
    Bundle remoteInput = RemoteInput.getResultsFromIntent(intent);  
    if (remoteInput != null) {  
        return remoteInput.getCharSequence(EXTRA_VOICE_REPLY);  
    }  
    return null;  
}
```

Pages



Pages – Code I

```
// Create builder for the main notification
NotificationCompat.Builder notificationBuilder =
    new NotificationCompat.Builder(this)
        .setSmallIcon(R.drawable.new_message)
        .setContentTitle("Page 1")
        .setContentText("Short message")
        .setContentIntent(viewPendingIntent);
```

Pages – Code II

```
// Create a big text style for the second page
BigTextStyle secondPageStyle = new NotificationCompat.BigTextStyle();
secondPageStyle.setBigContentTitle("Page 2")
    .bigText("A lot of text...");

// Create second page notification
Notification secondPageNotification = new NotificationCompat.Builder(this)
    .setStyle(secondPageStyle)
    .build();
```

Pages – Code III

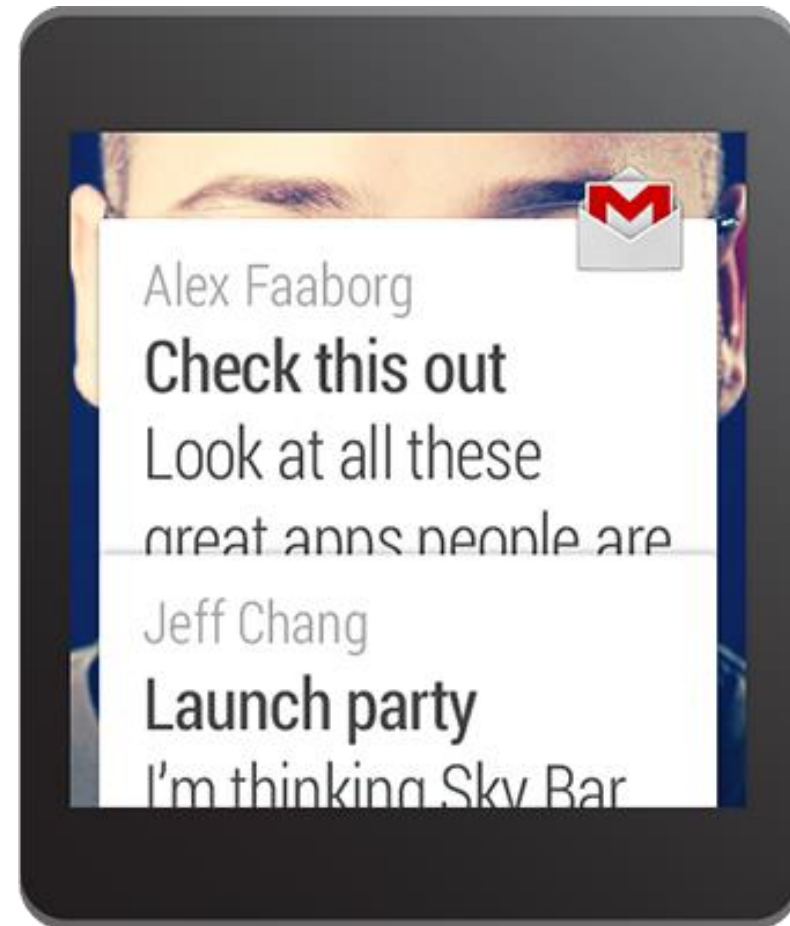
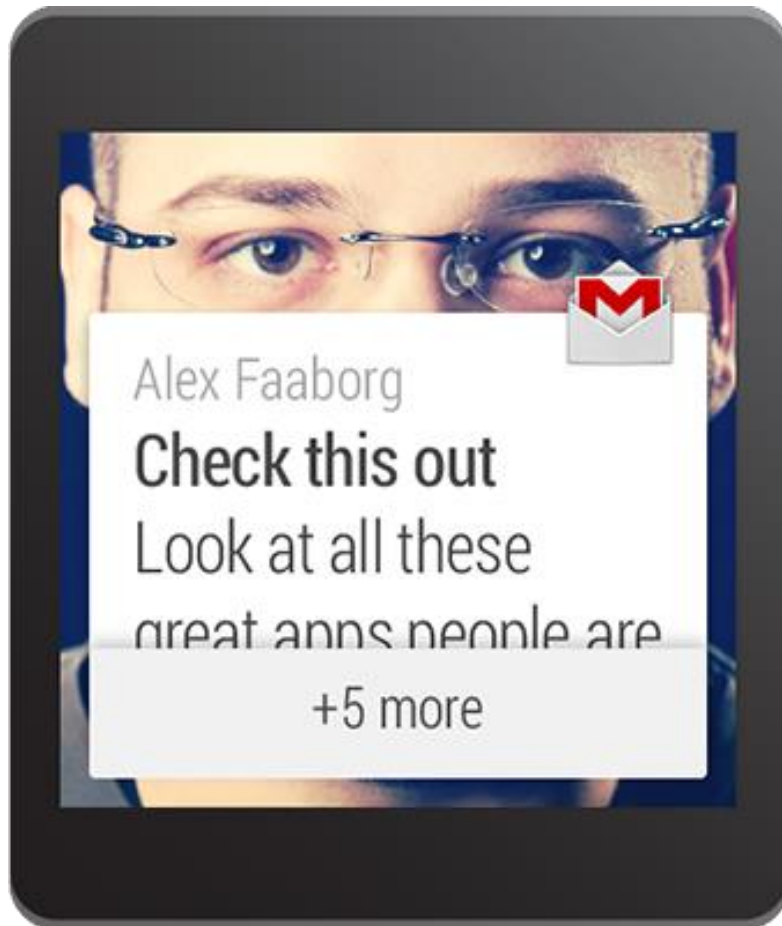
// Add second page with wearable extender and extend the main notification

```
Notification twoPageNotification = new WearableExtender()  
    .addPage(secondPageNotification)  
    .extend(notificationBuilder)  
    .build();
```

// Issue the notification

```
notificationManager = NotificationManagerCompat.from(this);  
notificationManager.notify(notificationId, twoPageNotification);
```


Stacking



Stacking – Code I

```
final static String GROUP_KEY_EMAILS = "group_key_emails";

// Build the notification, setting the group appropriately
Notification notif = new NotificationCompat.Builder(mContext)
    .setContentTitle("New mail from " + sender1)
    .setContentText(subject1)
    .setSmallIcon(R.drawable.new_mail)
    .setGroup(GROUP_KEY_EMAILS)
    .build();
```

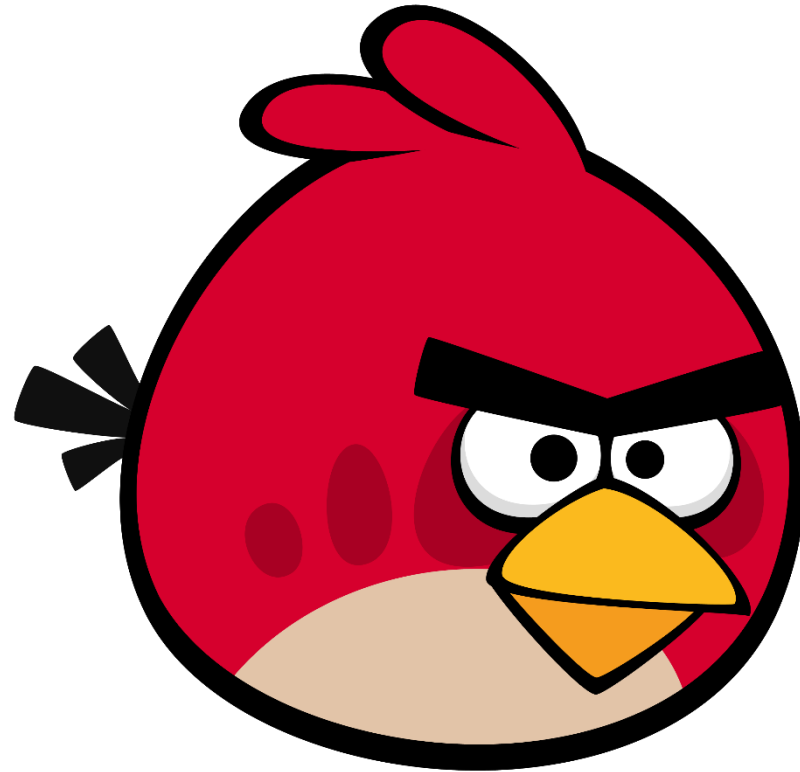
Stacking – Code II

```
// Issue the notification
NotificationManagerCompat notificationManager =
    NotificationManagerCompat.from(this);
notificationManager.notify(notificationId1, notif);

Notification notif2 = new NotificationCompat.Builder(mContext)
    .setContentTitle("New mail from " + sender2)
    .setContentText(subject2)
    .setSmallIcon(R.drawable.new_mail)
    .setGroup(GROUP_KEY_EMAILS)
    .build();

notificationManager.notify(notificationId2, notif2);
```


Be a Phenomenon



Context Based Apps

Things that trigger your apps

GPS



Heart Rate



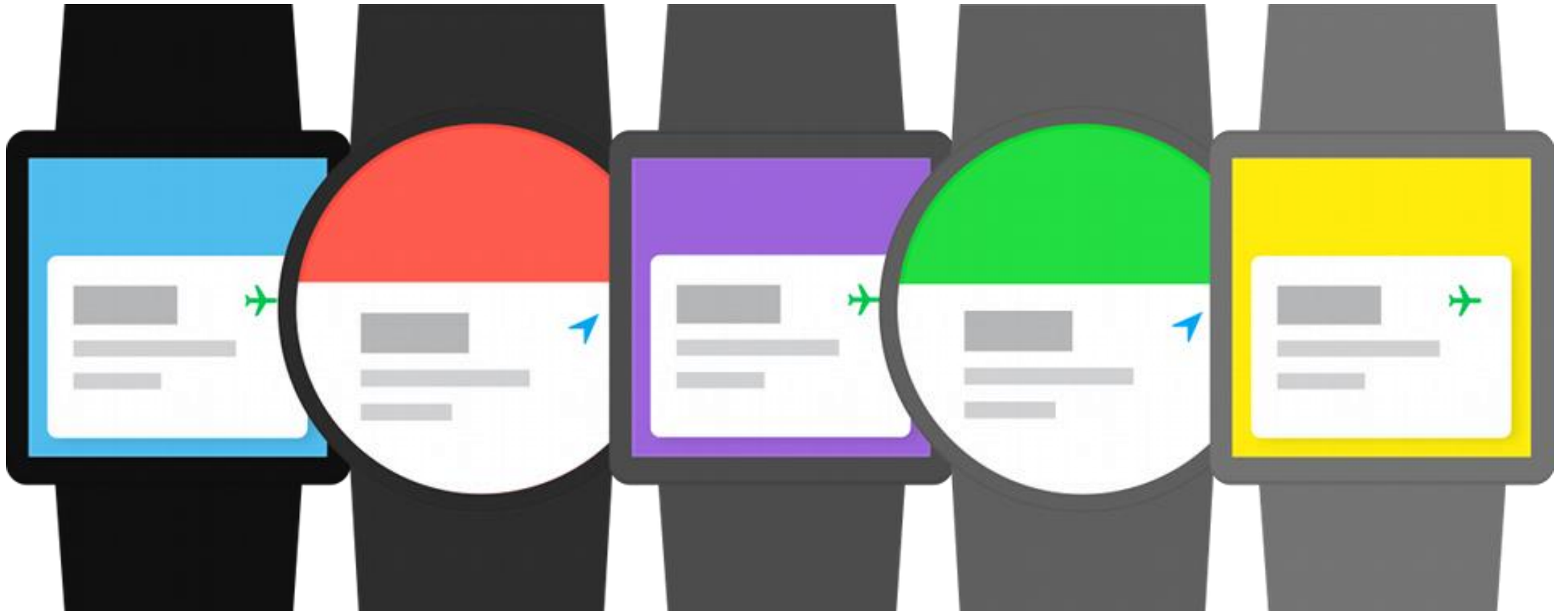
A low-angle, close-up shot of a person's legs and feet as they run on a paved path. The person is wearing black leggings and black athletic shoes with bright orange laces and orange accents on the soles. The background is a blurred outdoor setting with a wooden fence and a clear blue sky. The word "Pedometer" is overlaid in a large, black, sans-serif font on the right side of the image.

Pedometer

Sync that Data



App Quality





App Ideas?

What's Next

developer.android.com/wear



Demo Time

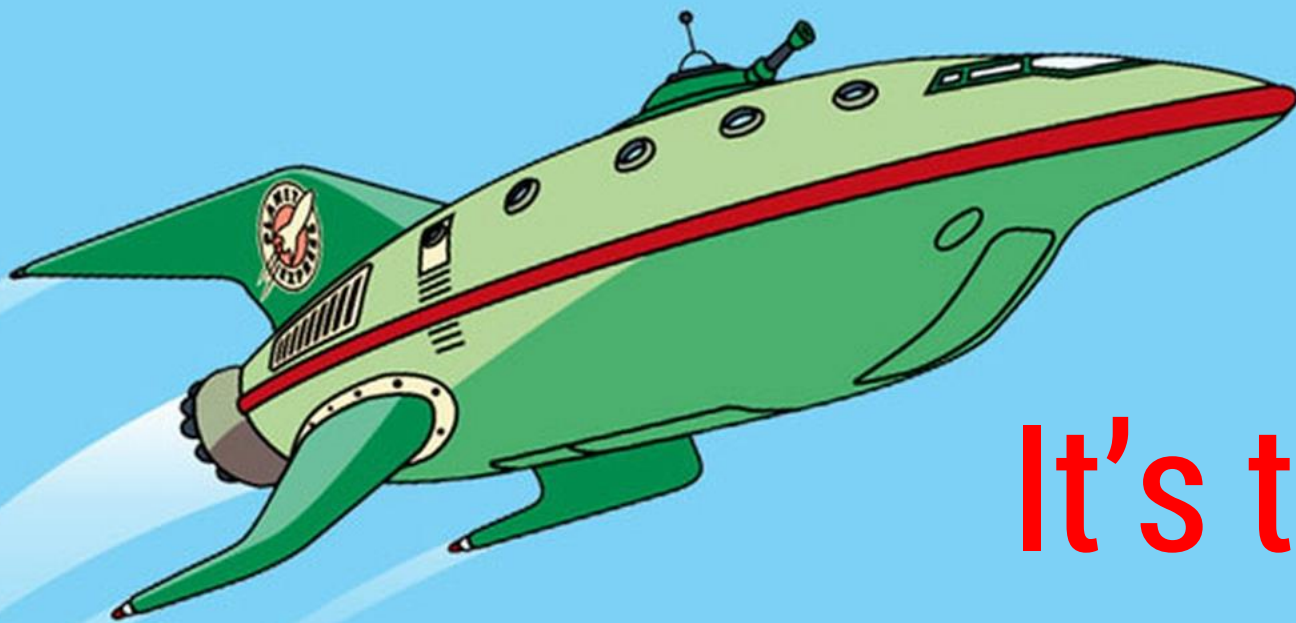
Hello Round World!



Open Platform

Huge Potential





It's the Future!



Get in Touch!

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