



ANDROID DEVELOPMENT #2

@brmlab

CONTEXT

- Activity

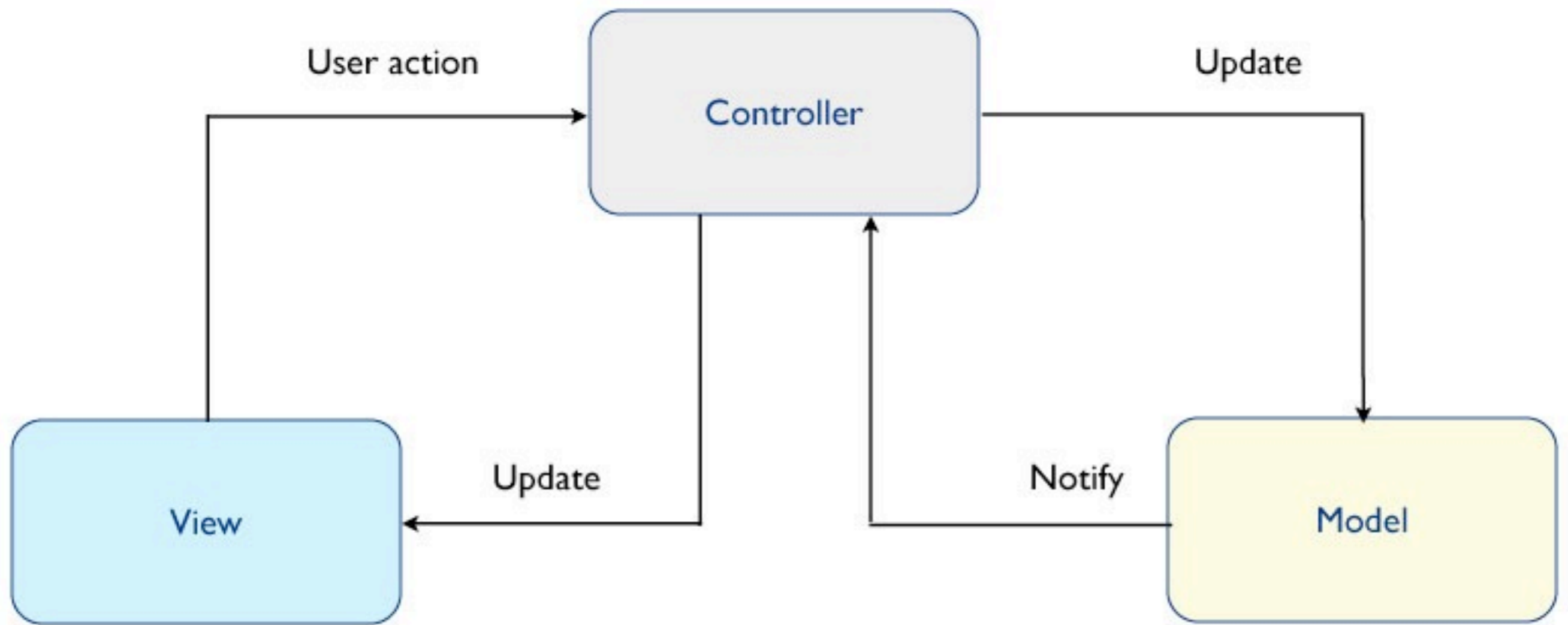
- this / `getBaseContext()`

- `getApplicationContext()`

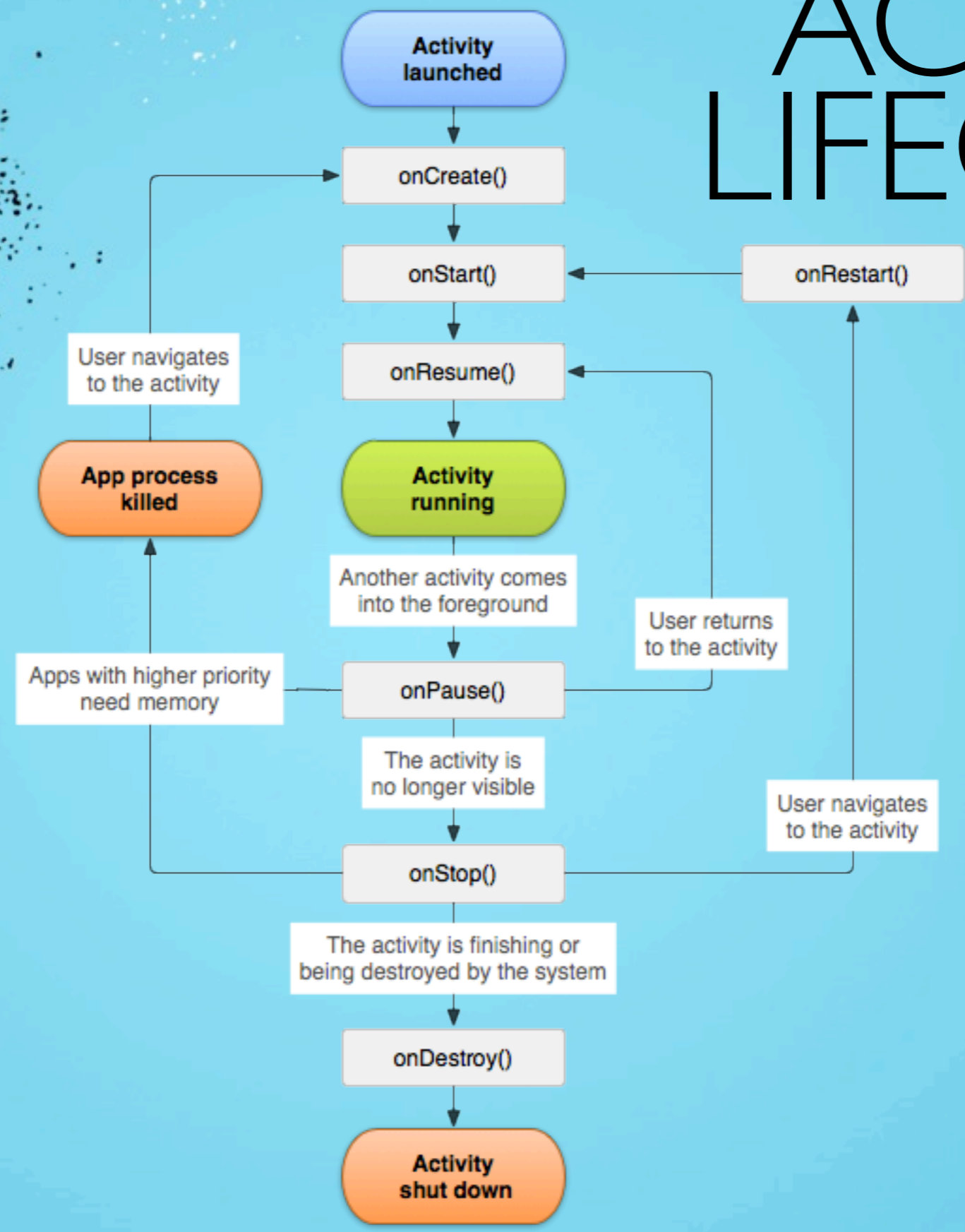
- Current state of components

- Required for almost everything

MODEL-VIEW-CONTROLLER



ACTIVITY LIFECYCLE



PERSISTENCE

- SQL Databases
- noSQL Databases
- SharedPreferences
- File persistence
 - Internal
 - External

SQL

- SQLite (raw)

- ORM (JPA)

- ActiveAndroid

- ORMLite

- greenORM

RAW SQL

Cursor

SQLiteDatabase

SQLiteOpenHelper

```
public CalendarEvent cursorToCalendarEvent(Cursor c) {  
    CalendarEvent ce = new CalendarEvent();  
    ce.setEventId(c.getInt(1));  
    ce.local_id = c.getLong(0);  
    ce.title = c.getString(2);  
    ce.description = c.getString(3);  
    ce.event_datetime = Utils.parseDate(c.getString(4));  
    ce.finished = c.getInt(5);  
    ce.place = c.getString(6);  
    ce.user = new User();  
    ce.user.user_id = c.getInt(7);  
    ce.user.real_name = c.getString(8);  
    return ce;  
}
```

JPA / ACTIVEANDROID

```
9  @Table(name = "GalleryItem")
10 public class GalleryItem extends Model {
11
12     @Column(name = "News")
13     public News news;
14     @Column(name = "title")
15     public String title;
16     @Column(name = "url")
17     public String url;
18
19     public static GalleryItem from(JGalleryItem jgi, News _n) {
20         GalleryItem g = new GalleryItem();
21         g.news = _n;
22         g.title = jgi.title;
23         g.url = jgi.url;
24         return g;
25     }
26
27 }
28
```


noSQL

CouchBase
MongoDB

```
{
  "firstName": "John",
  "lastName" : "Smith",
  "age"       : 25,
  "address"   :
  {
    "streetAddress": "21 2nd Street",
    "city"         : "New York",
    "state"        : "NY",
    "postalCode"  : "10021"
  },
  "phoneNumber":
  [
    {
      "type" : "home",
      "number": "212 555-1234"
    },
    {
      "type" : "fax",
      "number": "646 555-4567"
    }
  ]
}
```

SHARED PREFERENCES

- PAIRS : KEY - VALUE

- Only primitive types (int, String, boolean, ...)

PREFERENCES

- PreferenceManager.getDefaultSharedPreferences(Context)

- SharedPreferences

- Retrieving

- SharedPreferences.Editor

- Persisting

- Commit !

FILE

INTERNAL (from Context)

getFilesDir()

fileList()

deleteFile()

FILE

EXTERNAL

- Environment

- getExternalStorageDirectory()

- getExternalStorageState()

- Context.getExternalCacheDir()

- Standard JAVA IO classes

- InputStream / OutputStream - Read/Write

- BufferedReader / BufferedWriter