

WatchMe: Developer Manual

A quick-start guide and overlook of the WatchMe Android application.

Getting started

```
git clone git://github.com/johanbrook/watchme.git
```

Dependencies

- Java 6 SE development environment
- Android SDK
- A (virtual) Android device

Android SDK targets

- Minimum SDK: **8**
- Target SDK: **15**

Building and installing

A `build.xml` is included in the root directory which may be used for building the project, and used by `ant` to run tests, and various other tasks.

To install the `WatchMe.apk` package file on a connected Android device, run the following on the command line in the project directory:

```
$ ant clean install debug
```

That will build and install the application in debug mode. Other modes are available: `instrument` and `release`. To view all `ant` targets, run

```
$ ant -p
```

Tests

Automatic tests are included in a separate project embedded within the application project, and is called `WatchMeTest`. To run the included tests, head to the command line and use `ant` from the `WatchMeTest` directory:

```
$ ant test
```

Make sure to test the newest application package by running `ant clean debug install` before running any tests.

Architecture

The application code resides in packages organized by area, such as `database` (for data provider interactions), `net` (for HTTP and IMDb connections), `activity` (for Android Activities), etc. Various helpers are in the `utils` package.

The domain model consists of two classes: `Movie` and `Tag`.

Content Provider

Package
`database`

The data source is backed by an SQLite database which a Content Provider is using to interface with the application code.

HTTP and the IMDb API connection

Package

net

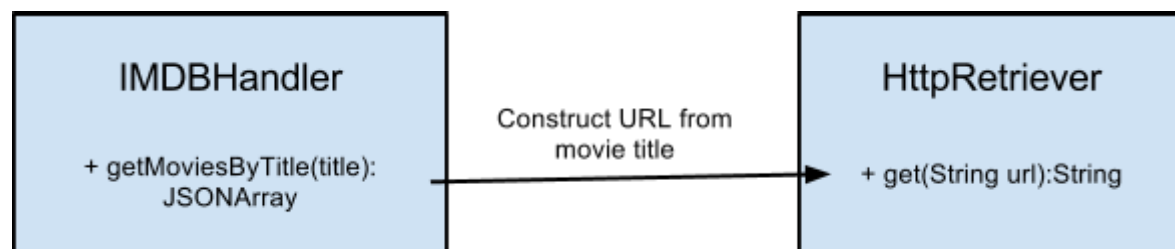
API endpoint:

<http://api.themoviedb.org/2.1/>

Response format:

JSON

The API calls to the IMDb API is handled by a middle layer class called `HttpRetriever` which basically performs an HTTP GET request for an arbitrary URL (using the Apache HTTP library). The top layer is the `IMDBHandler` class which uses a `HttpRetriever` to make calls to the IMDb API service.



Notifications and Services

Package

notifications

The movie notification feature is handled by a system of alarm tasks, clients and Android Services. The main task for the system is to schedule Android notifications on a certain date (e.g. a movie's release date, set by the user).

To use notifications with the Movie model, create an instance of the `NotificationClient` class, connect to the underlying notification service with `connectToService()`, and use `setMovieNotification(Movie movie)` to set a notification for a movie object.