Android Components 2
Android Smartphone Programming

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Outline
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- Mostly used to share data between applications[2].
- Many predefined Content Providers available, for example to access phone contacts.
- Provide mechanisms to define data security.
- Access of data through content URI.
    - Example: *people.CONTENT_URI* to access the phone contacts.

```
1   String [] proj = new String [] {People._ID,
        People.NAME, People.NUMBER};
2   try {
3     Cursor c = managedQuery(People.CONTENT_URI,
          proj, null, null, null);
4     if (c == null) return;
5     int name = c.getColumnIndexOrThrow(People.
        NAME);
6     if (!c.moveToFirst()) return;
7     String nameString = c.getString(name);
8     ...
9   }
```
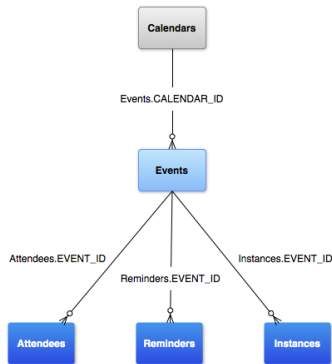
- To access the built-in calendar the Android manifest has to be extended[?]:

```
1  <uses-permission android:name="android.
      permission.READ_CALENDAR">
2  </uses-permission>
```

- Data can be accessed through a Content Provider and a Cursor.
- The Content Provider for the calender has the following URI:

```
1  content://calendar/calendars
```

[1]http://developer.android.com/guide/topics/providers/
calendar-provider.html

- *CalendarContract.Calendars*:
  Calender specific informations.

- *CalendarContract.Events*:
  Event specific informations. Connected by CALENDER_ID.

- *CalendarContract.Instances*:
  Start and end time for each occurrence. Connected by EVENT_ID.

- *CalendarContract.Attendees*:
  Event attendee information. Connected by EVENT_ID.

- *CalendarContract.Reminders*:
  Notification data. Connected by EVENT_ID.

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