



# Application Development for Mobile and Ubiquitous Computing

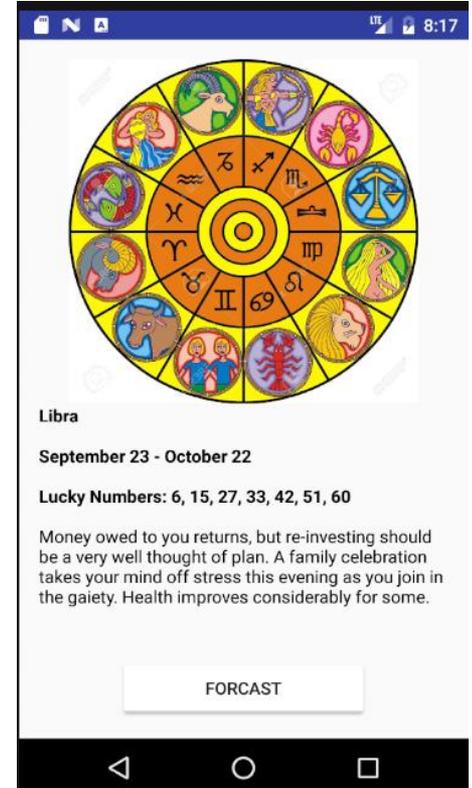
Project: Daily Organizer

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• User enters his birth date

• Application identifies user's sun sign

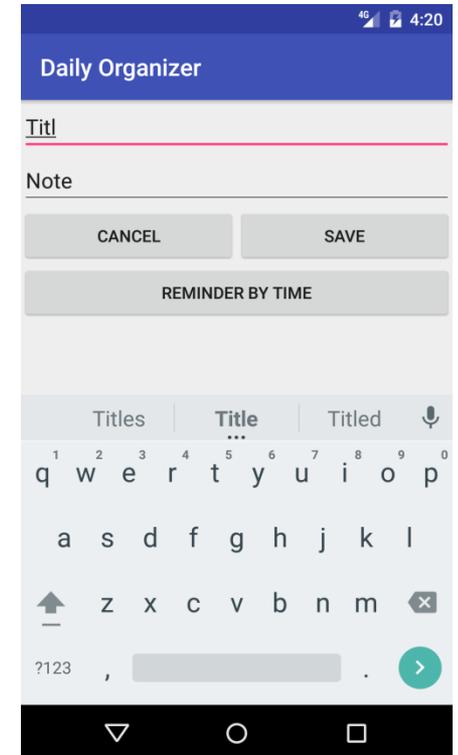
• Application shows fetched forecast

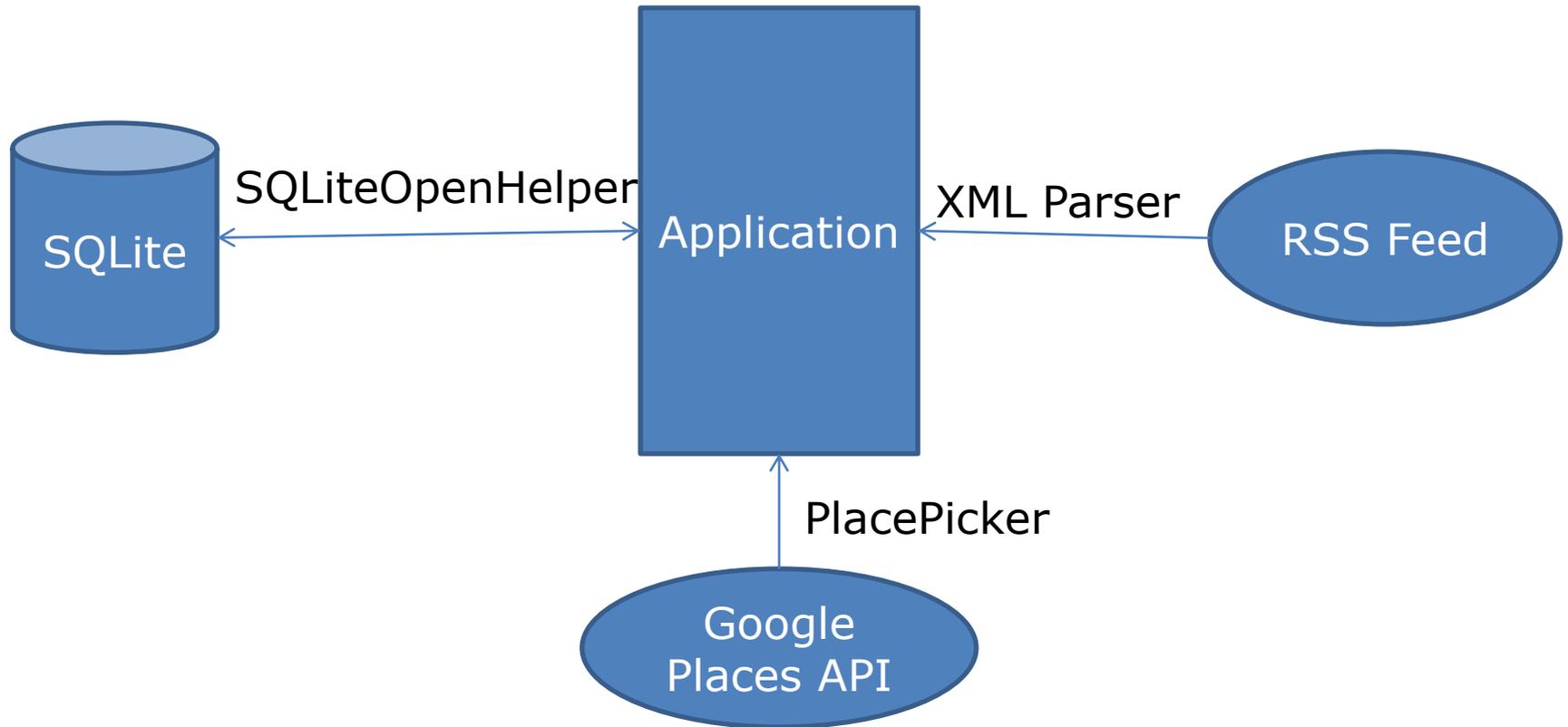


• User creates a to-do list

• User adds reminder and saves place of task

• Application notifies the user about the event





- RSS Parser – to fetch a forecast
- SQLite – to save a list of tasks (id, title, note, time, place)
- Google Places API – to save place of a task



- Personal context: a date of birth
  - an appropriate forecast will be fetched
- Physical context: location, time
  - notifications will be shown
- Technical context: network connection type
  - fetch forecasts if certain type of connection

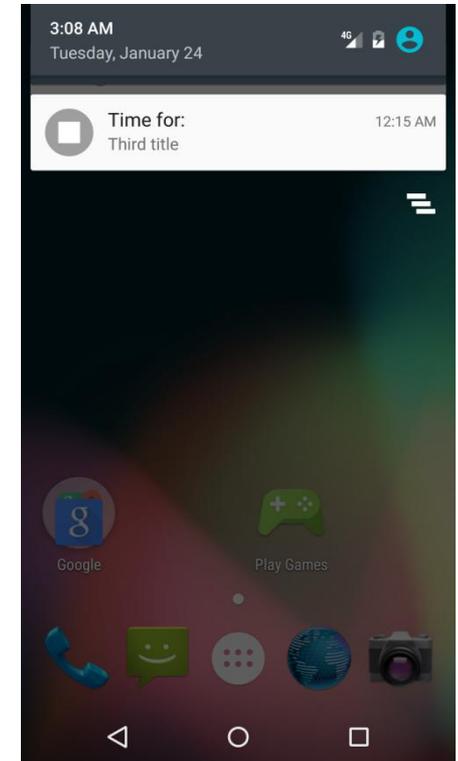
- Depending on user's entered date application connects to external source and fetches appropriate forecast

- e.g. 

```
switch (sunSign) {  
  case "Libra":  
    fetch (?sign=Libra&id=45)  
  }
```

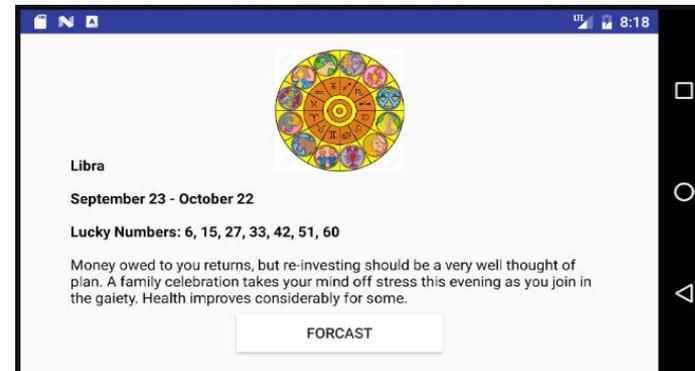


- A user sets reminder, then application notifies the user at the chosen time
- `alarmManager` = `(AlarmManager)`  
`getSystemService(ALARM_SERVICE)` ;
- `alarmManager.set(AlarmManager.RTC_WAKEUP, calendar.getTimeInMillis(), pendingIntent)` ;



- Network connection type is used as a context in order to limit mobile internet traffic

```
ConnectivityManager cm = (ConnectivityManager)
    context.getSystemService(Context.CONNECTIVITY_SERVICE);
NetworkInfo activeNetwork = cm.getActiveNetworkInfo();
if (activeNetwork != null) {
    if (activeNetwork.getType() == ConnectivityManager.TYPE_WIFI) {
        fetch();
    } else if (activeNetwork.getType() == ConnectivityManager.TYPE_MOBILE) {
        Toast.makeText(context, activeNetwork.getTypeName(), Toast.LENGTH_SHORT).show();
    }
} else {
    Toast.makeText(context, "Not connected", Toast.LENGTH_SHORT).show();
}
```



Thank you for your attention!