

Lappeenranta University of  
Technology Department of Information Technology

## ANDROID

CT3019300 Code Camp on Communication Engineering  
Group 17: GYMangy

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## 1. IDEA

GYMangy is a mobile application that is developed in order to make the task easier for those who are conscious about their health, for that they perform several exercises visiting different gymnasium.

Following are main basic idea for developing this application:

- Replacing paper activity with mobile device: To make life easier and effective, it will be nice if people do not write everything in paper, and managing everything in paper is tedious as people are responsible for lots of other task also.
- Making GYM reporting mobile: possibility to view previous results and write a program in accordance with dynamic changes and user's features.
- Providing GYM results analysis: It is for calculating user's progress from his input data provided by user base about his exercises.
- Notifying for effective GYM meals: Based on data that user inputs about time between meals, this application notifies user when he should take food.
- Video GYM support: User can search for video to support his exercises and improve his results, performing the exercises correctly. Additionally can learn new way by watching new video for GYM support.
- Easy defining nearest GYM location: This is one facility for user who travels and wants to perform his activities in gymnasium present at that place. Use of maps provides this feature locating nearest possible gymnasium.

## 2. SOFTWARE DESCRIPTION

### 2.1. OVERVIEW

GYMangy is a mobile application that supports user for his activity related to his exercises. With the help of GYMangy user can record and analyze his results, get useful information (watch video how to perform the exercise correctly, define nearest fitness club location) and get use notifications to eat sport meal in time.

### 2.2. ARCHITECTURE

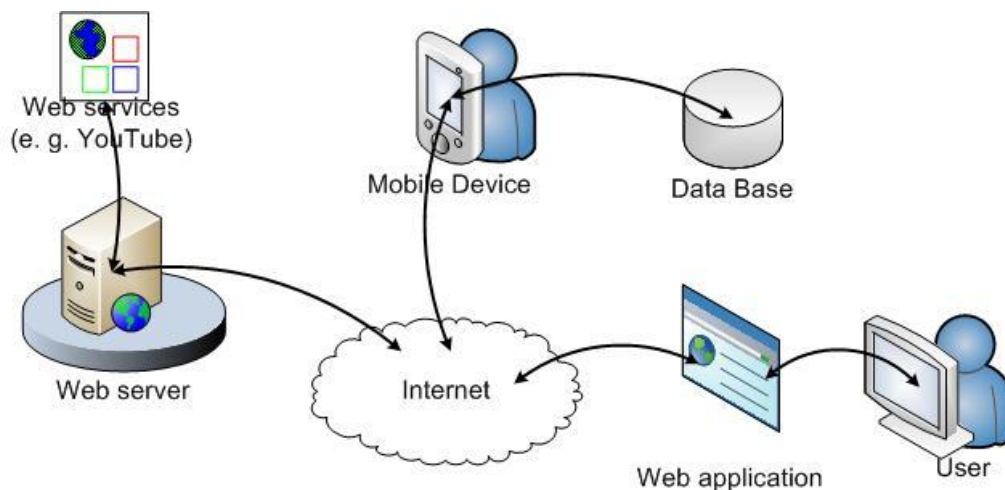
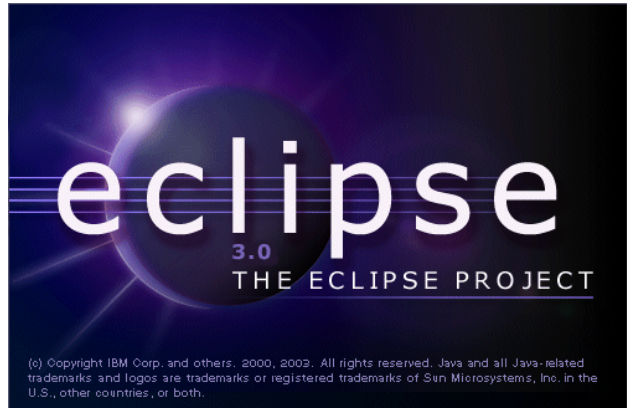


Fig: Architecture of GYMangy application

The architecture for whole GYMangy application is provided above. User can connect with his mobile device with internet services and operate with data in the database. Architecture also supposes that data that was input by user can be retrieved and analyzed via custom PC, but at the current moment this part of architecture is not implemented, we concentrated on mobile part of this application.

### 2.3. TOOLS AND TECHNOLOGIES



Android SDK tools are used for GYMangy application. Eclipse IDE is used as development environment. Also Google maps and YouTube involved and provide their services.

### 2.4. USERS OF GYMangy

Target users of this application are people who visit gymnasium regularly and are concerned about his or her exercises activity. Typical application's user is 20-40 years old, either man or woman, who takes care about his/her health.

## 2.5. FUNCTIONALITY

Basic functionality of the application is following:

- Type information about sets, repeats, weights.
- Store, visualize and analyze it.
- Plan the training and physical activities.
- Remind a user to meal or use additives and vitamins.
- View media files how to do an exercise correctly.
- Keep information about nearest gyms and theirs facilities.

## 2.6. USER INTERFACE

User interface of GYMangy application is friendly and simple for sportsmen. That is important when they are in gym and don't have facilities, for example, can't use stylus. The UI looks as below.

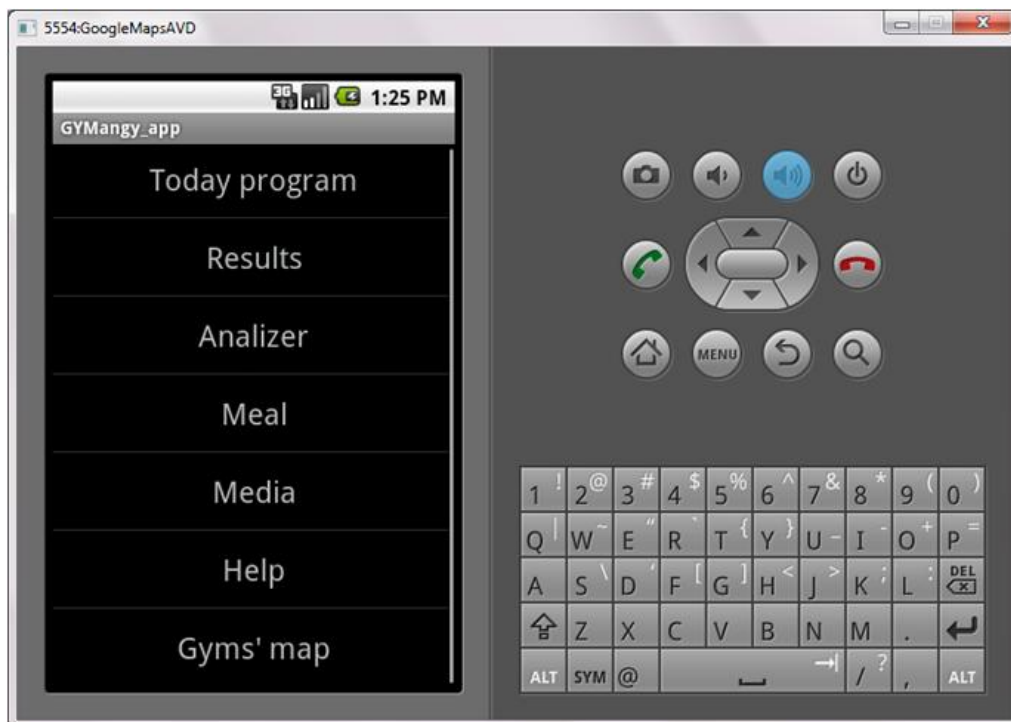


Fig: UI of GYMangy application

### 3. CONCLUSION

GYMangy application has been developed during 5-days Android Code Camp in Lappeenranta University of Technology. The main aim was to get to know with Android technology and use it for developing own application. During the work we faced with different difficulties, some things about Android are provided below.

#### 3.1. Good Thing about Android:

- Using java language
- Android has linux core
- Sqlite support

#### 3.2. Bad things About Android

- Slow emulator response while running the application
- Application installation is a bottleneck
- Java for Android is cut