

Mobile Application Development

Introduction & Class Info



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About Us

Simone Cirani, Ph.D.

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Marco Picone, Ph.D.

Research Engineer @ Guglielmo srl - Caligoo

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Our research interests:

- Internet of Things and Smart Cities
- Peer-to-peer networks
- Mobile Application Development
- Mobile and Pervasive Computing
- Security



<http://www.guglielmo.biz>



<http://www.caligoo.com>

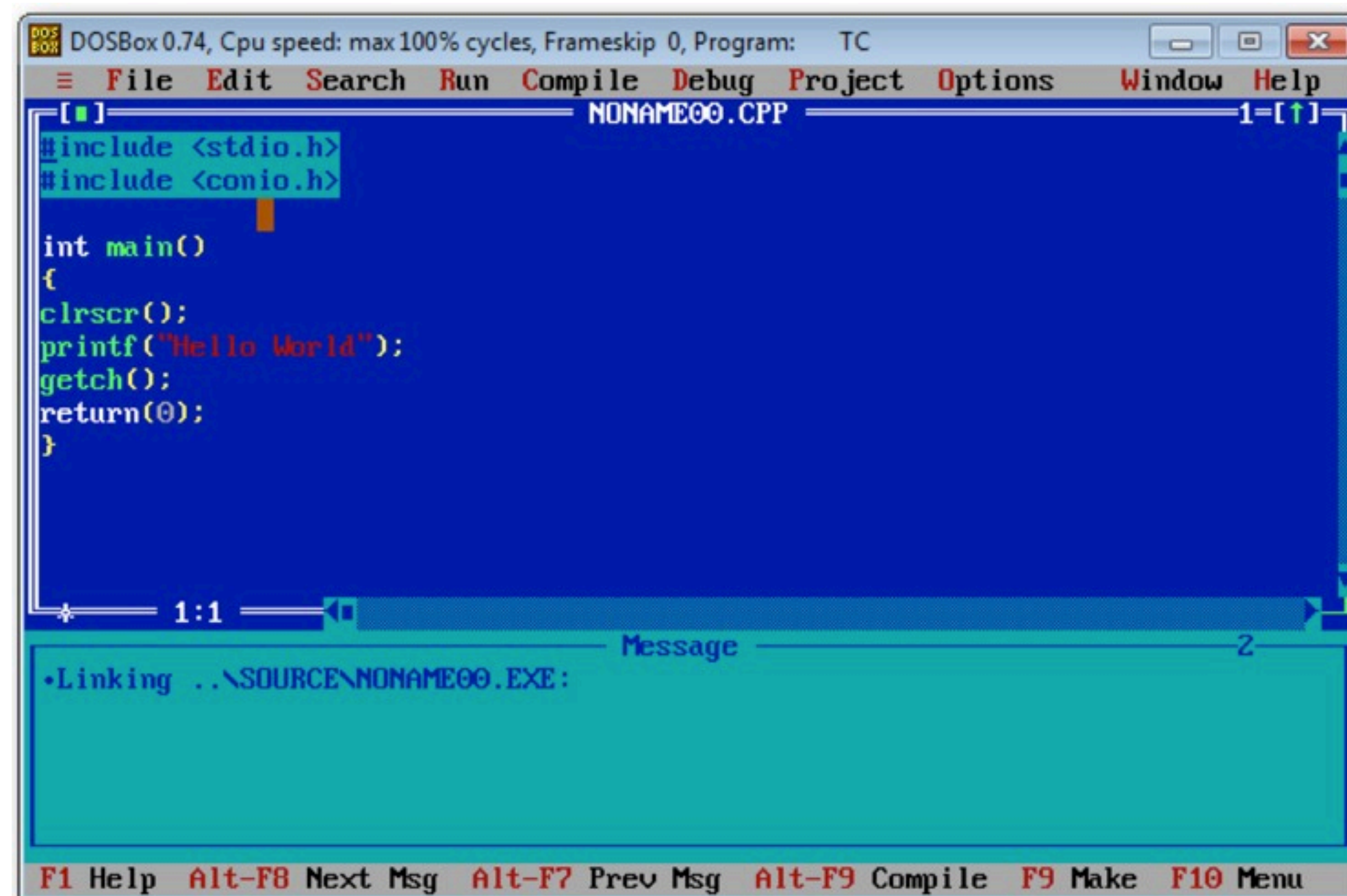
What this class is about

- Mobile Application Development
 - Android platform (Java)
 - iOS platform, i.e. iPhone, iPod, iPad (Objective-C)
 - Cross-platform (web-based, i.e. HTML5/CSS3/JS, technologies)
- Best practices for the design and implementation of mobile applications
- Tools for developing Android and iOS applications (Eclipse, XCode, ...)
- Android and iOS platform core concepts and frameworks
- Enhance programming skills by developing mobile applications
- Earn experience in mobile application deployment and testing phases



What this class is not about

- This class will not teach the basics of programming
- Not (just) a Java and Objective-C language class
- Not a shortcut to by-pass Apple's regulations for AppStore submission :)

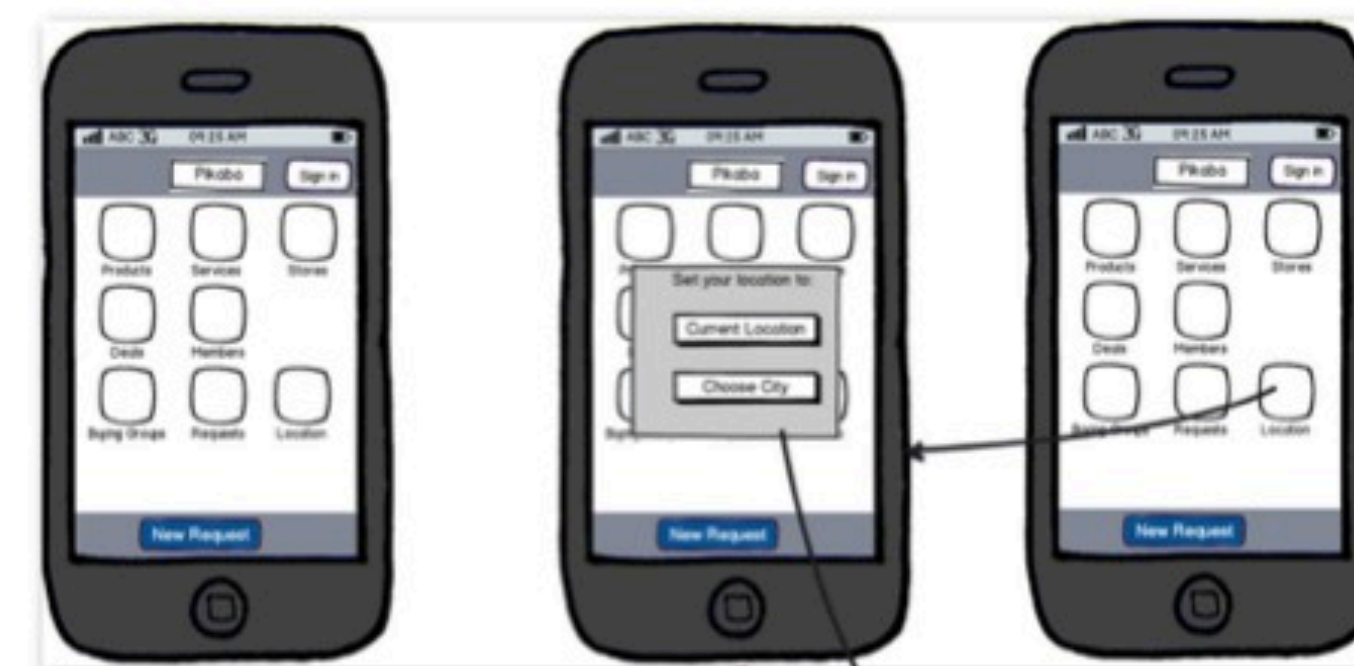


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NONAME00.CPP 1-[ ]
#include <stdio.h>
#include <conio.h>

int main()
{
  clrscr();
  printf("Hello World");
  getch();
  return(0);
}
1:1
Message
•Linking ..\SOURCE\NONAME00.EXE:
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

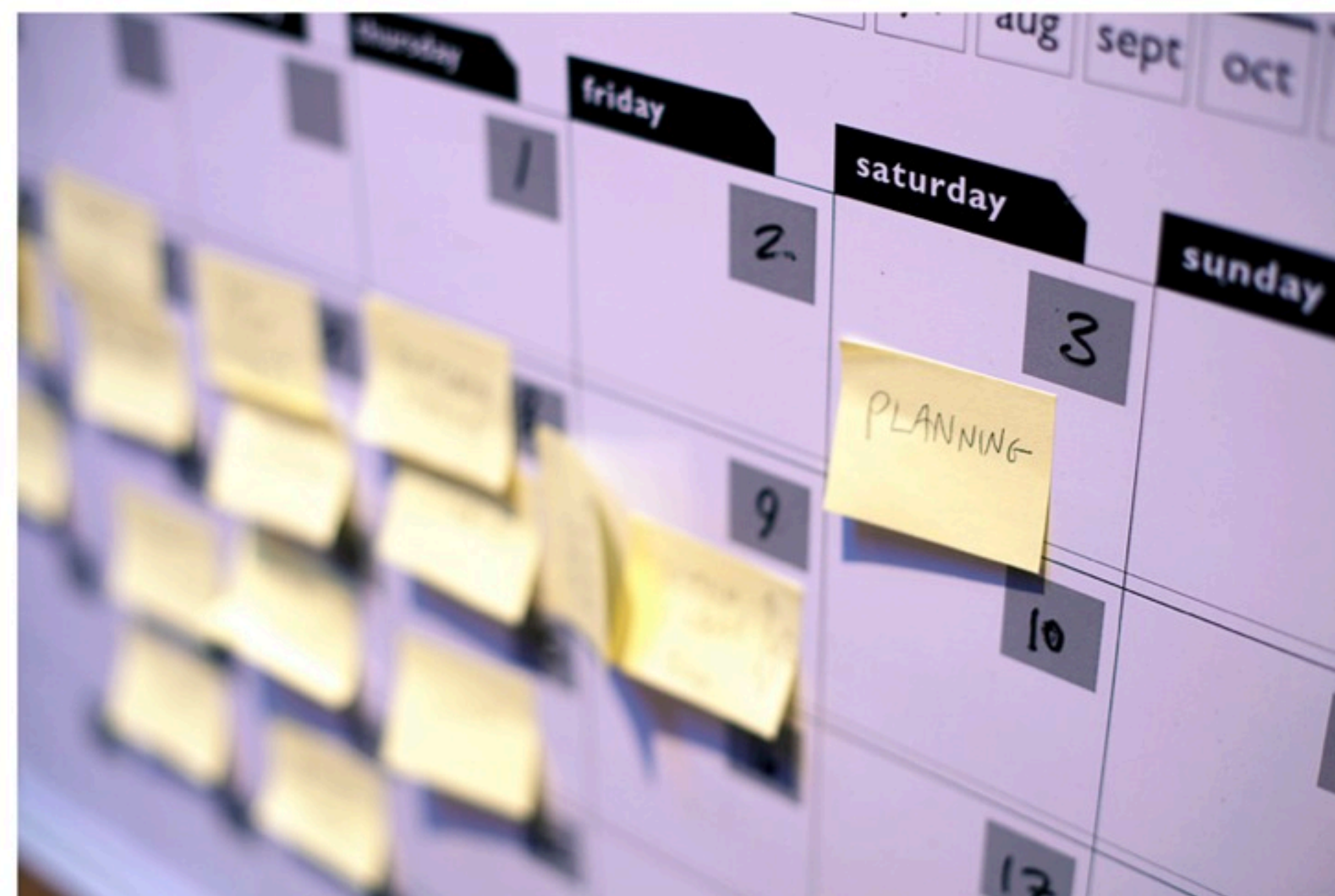
Class Outline

- Introduction to mobile application development: concepts, challenges, market
- Two main modules:
 - iOS (~10/11 lectures) by Simone
 - Android (~10/11 lectures) by Marco
- Additional Lectures on cross-platform development and specific tutorial sessions and laboratories on iOS and Android



Class Schedule

- Monday @ 8:30 AM - Room 8



Prerequisites

- The following skills are highly recommended (almost mandatory):
 - Basic programming skills (algorithms and data structures) - we have no time to cover the bases
 - Basic knowledge of C, C++, and/or Java syntax
 - for Android development, any computer is fine
 - for iOS development, a Mac is needed (or a Virtual Machine with Mac OS X)
- The following skills are a plus, yet not mandatory (the class will cover some of these points)
 - Object-oriented programming experience
 - Confidence with design patterns

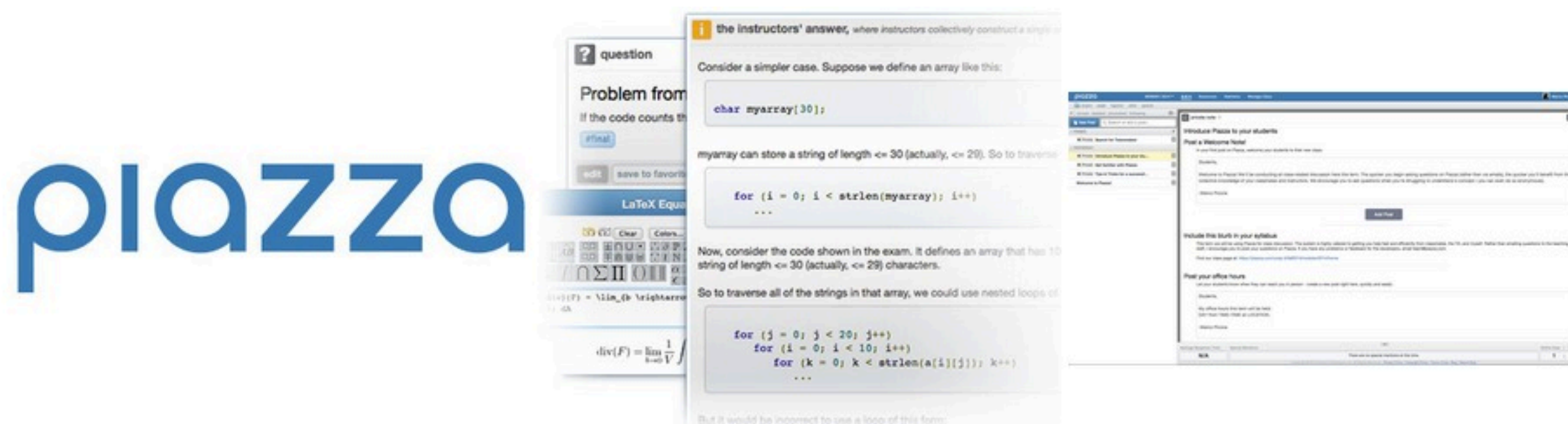
Official Web Page & Downloads

- Slides and code will be available on the day before or the same day of the lecture

Piazza is our official communication platform!

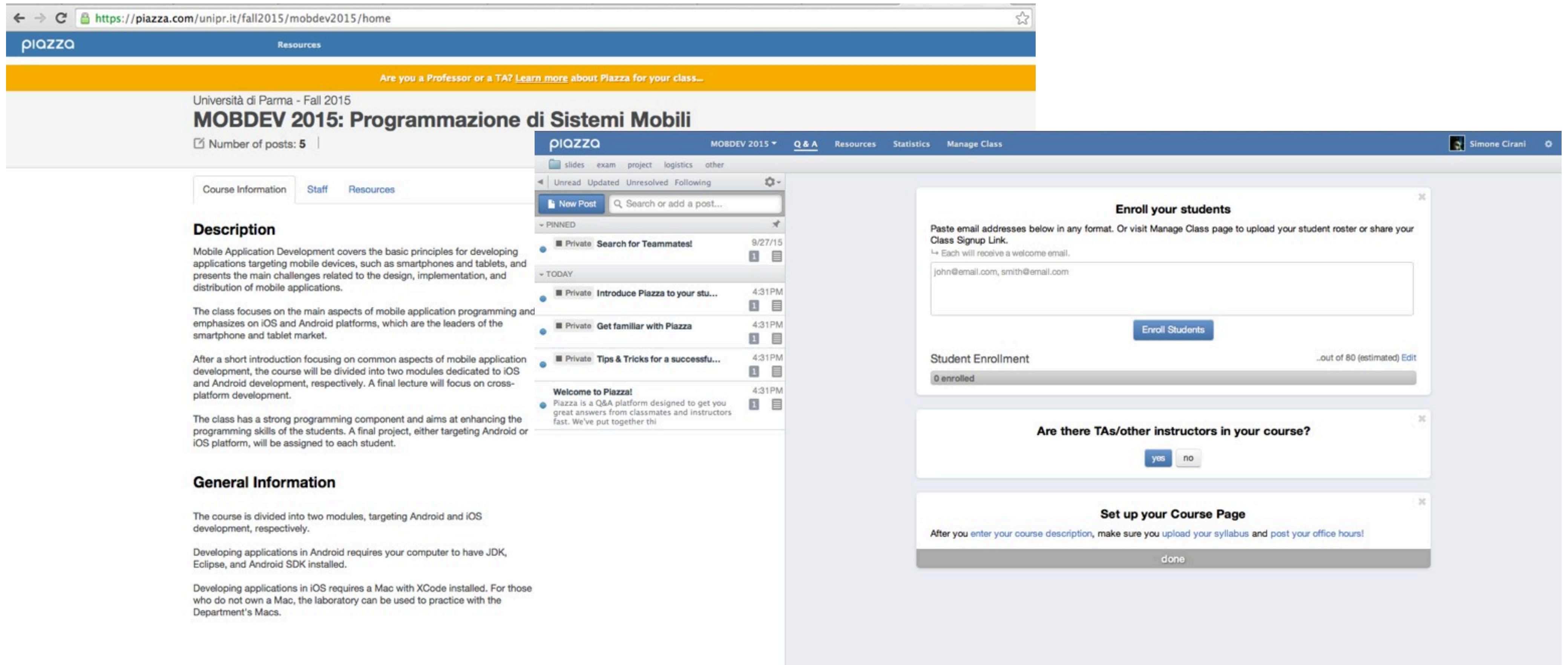
Register and enroll at:

<https://piazza.com/unipr.it/fall2015/mobdev2015/home>



MobDev 2015 @ Piazza

<https://piazza.com/unipr.it/fall2015/mobdev2015/home>



The screenshot displays the Piazza website interface for the MobDev 2015 course. The top navigation bar includes the Piazza logo and a 'Resources' link. Below this, a yellow banner prompts users to learn more about Piazza for their class. The main header identifies the course as 'Università di Parma - Fall 2015' and 'MOBDEV 2015: Programmazione di Sistemi Mobili', with a note that there are 5 posts. The left sidebar contains tabs for 'Course Information', 'Staff', and 'Resources'. The 'Description' section outlines the course's focus on mobile application development, covering basic principles, challenges, and the use of iOS and Android platforms. The 'General Information' section provides details about the course structure, including the use of JDK, Eclipse, and Android SDK for Android development, and XCode for iOS development. The right sidebar features a 'New Post' button, a search bar, and a list of pinned and today's posts. The main content area includes a form for enrolling students, a section for setting up the course page, and a section for enrolling students.

Enroll your students

Paste email addresses below in any format. Or visit Manage Class page to upload your student roster or share your Class Signup Link.

Each will receive a welcome email.

john@email.com, smith@email.com

Enroll Students

Student Enrollment 0 out of 80 (estimated) Edit

0 enrolled

Are there TAs/other instructors in your course?

yes no

Set up your Course Page

After you enter your course description, make sure you upload your syllabus and post your office hours!

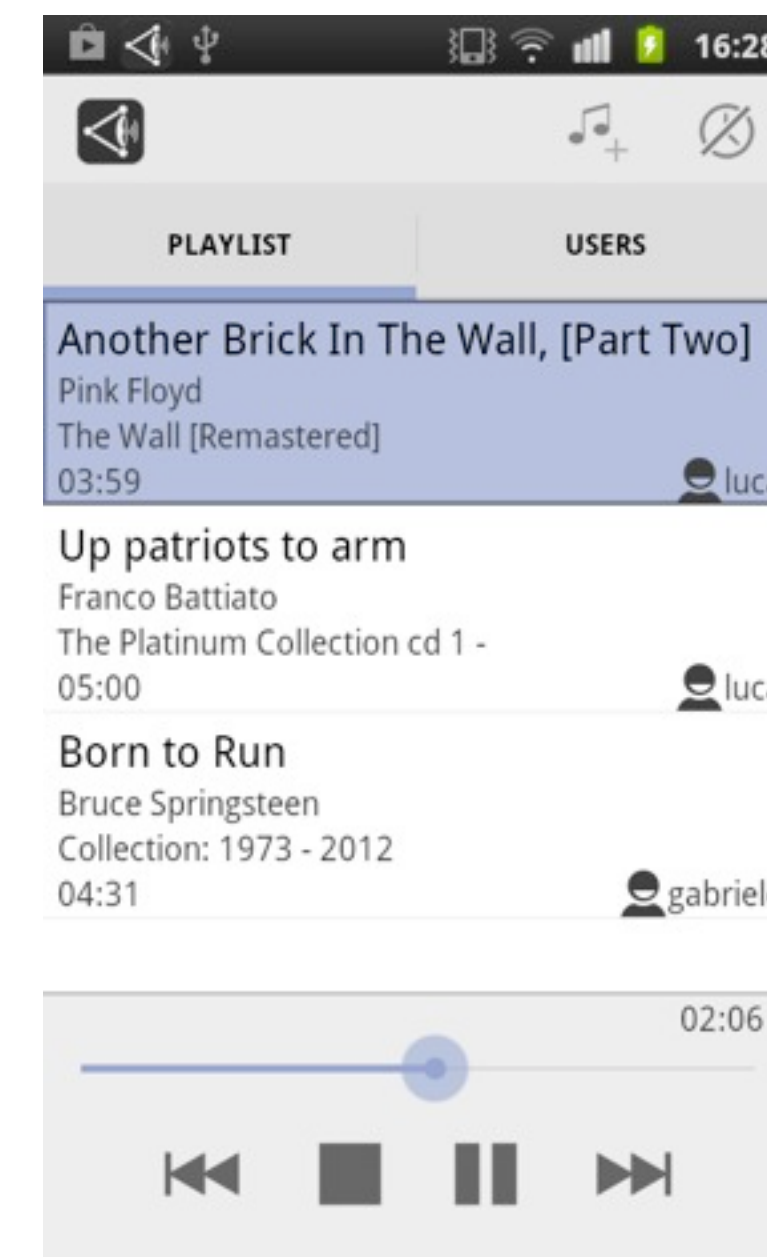
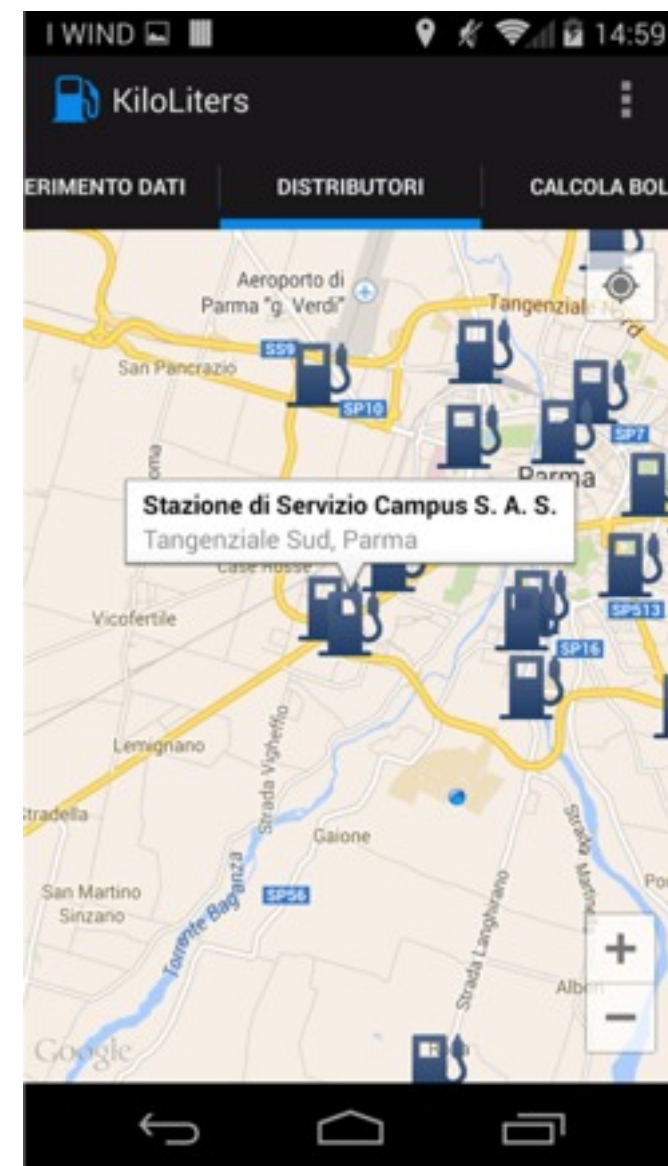
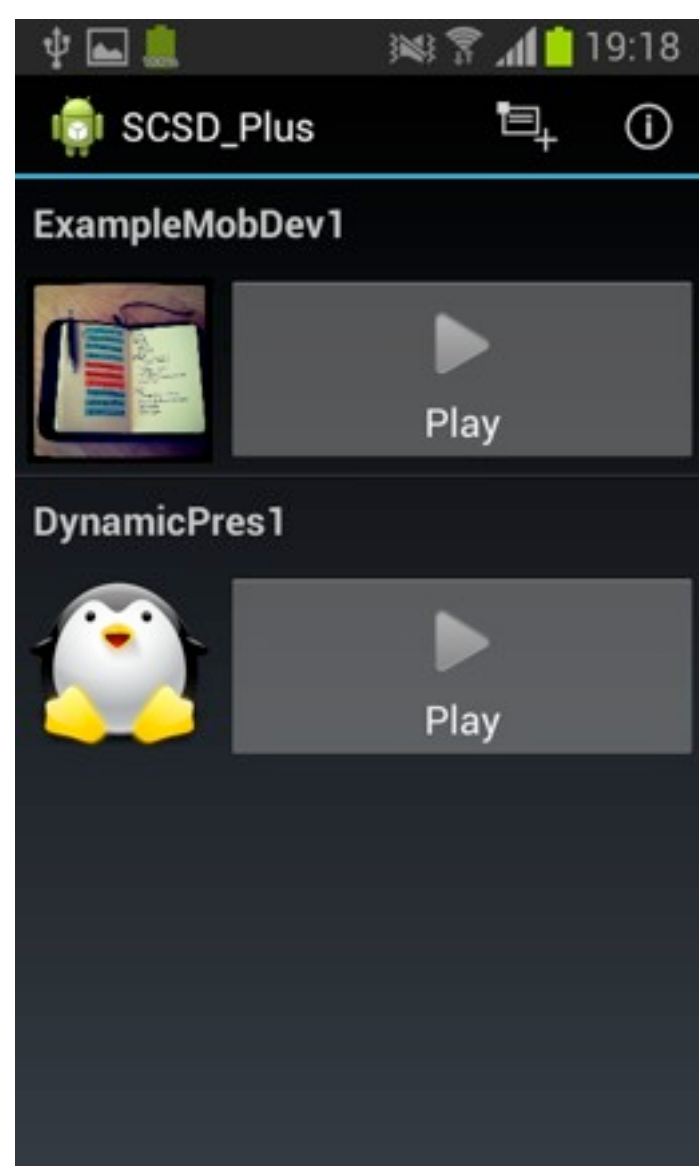
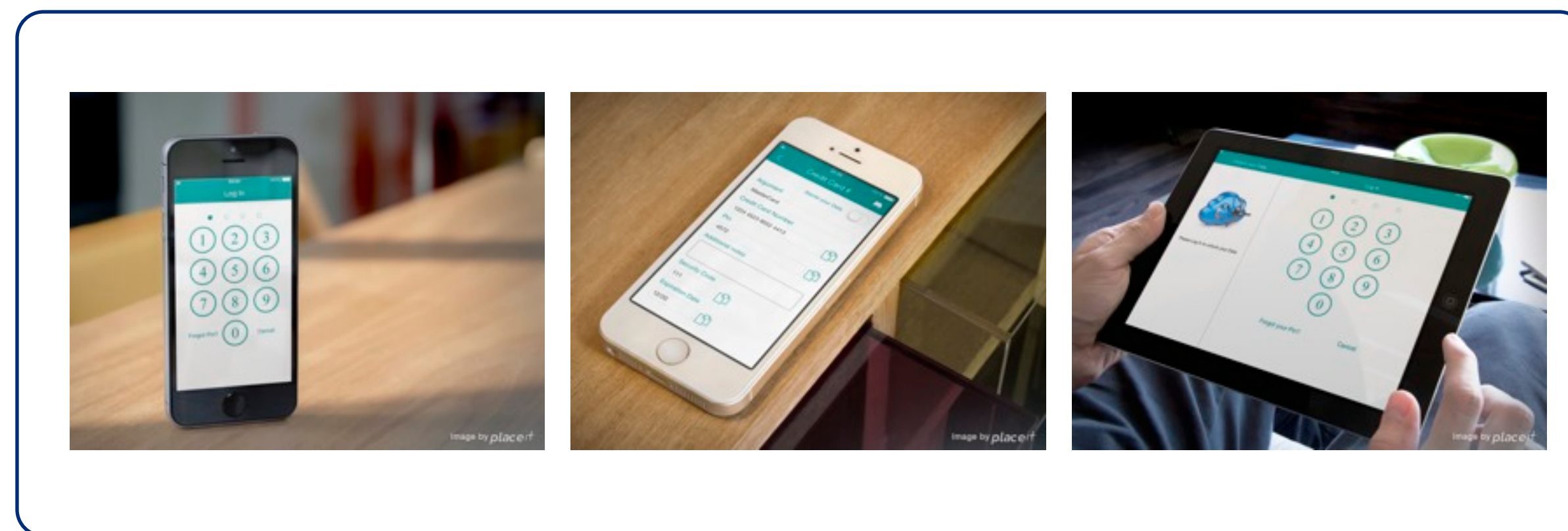
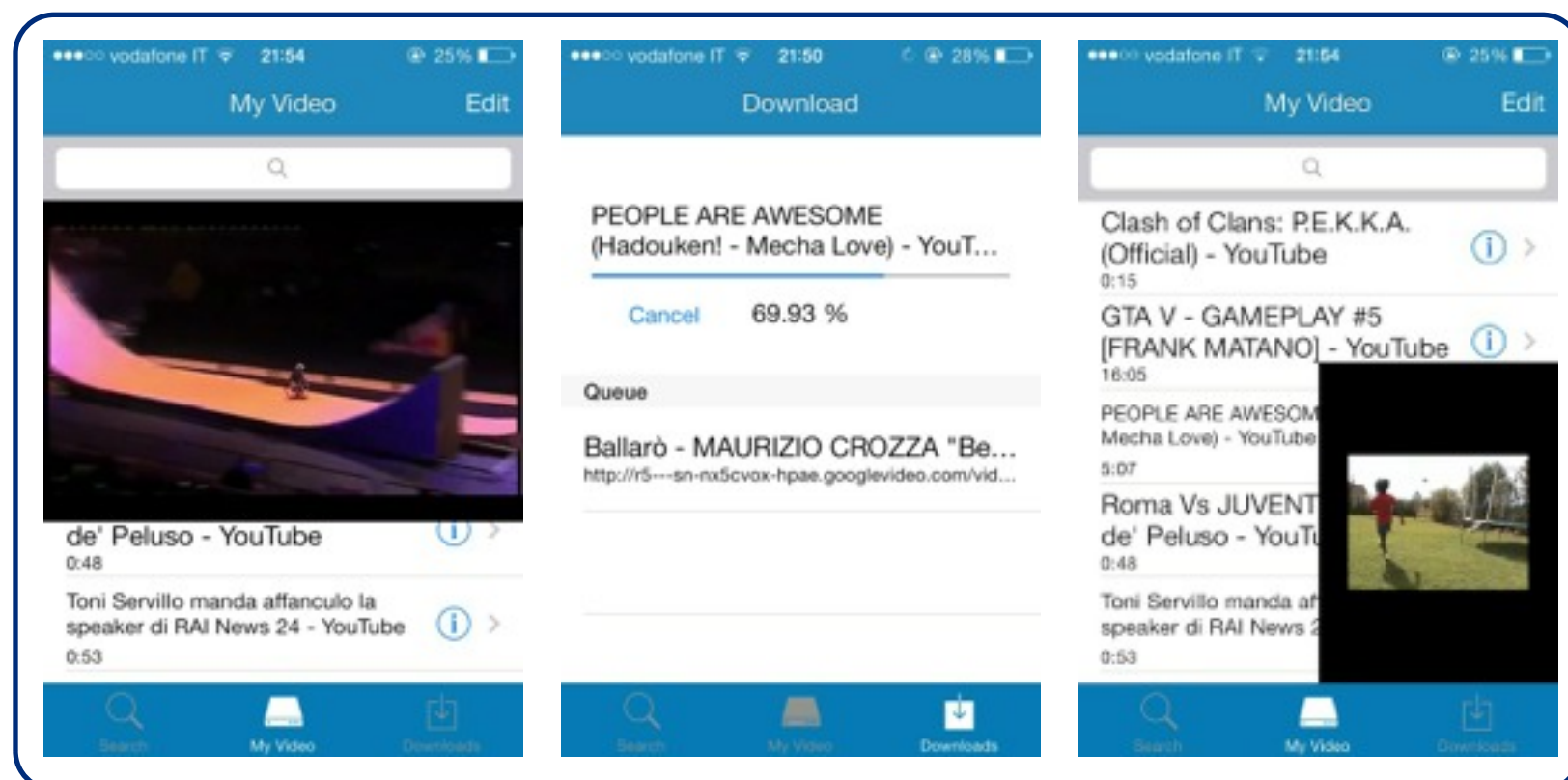
done

Exam & Projects

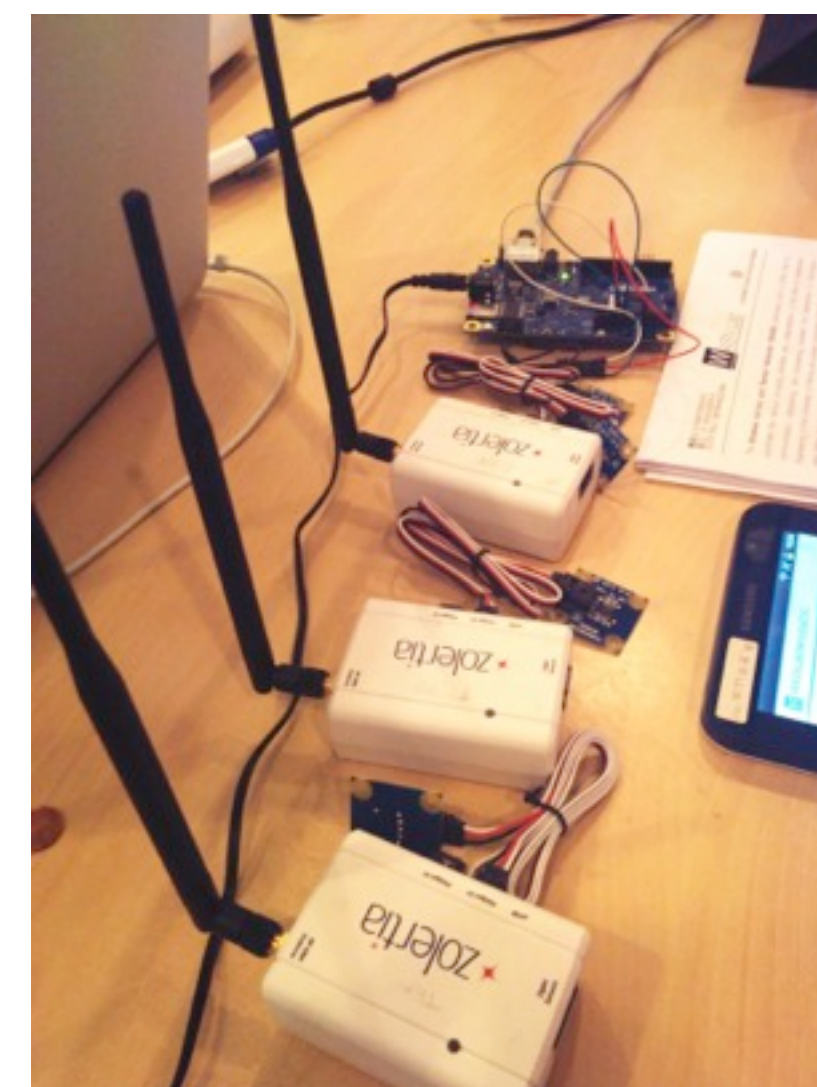
- The final grade will depend on two components:
 - Exam (open questions) at the end of the class (weight = 1/3)
 - Individual or group (max 3 people) project (Android OR iOS) (weight = 2/3)
- In case of a group project
 - the project must be properly scaled
 - the contribution of each member must be clear and balanced

If you wish to have your project as part of your thesis,
just tell us and we will work it out!

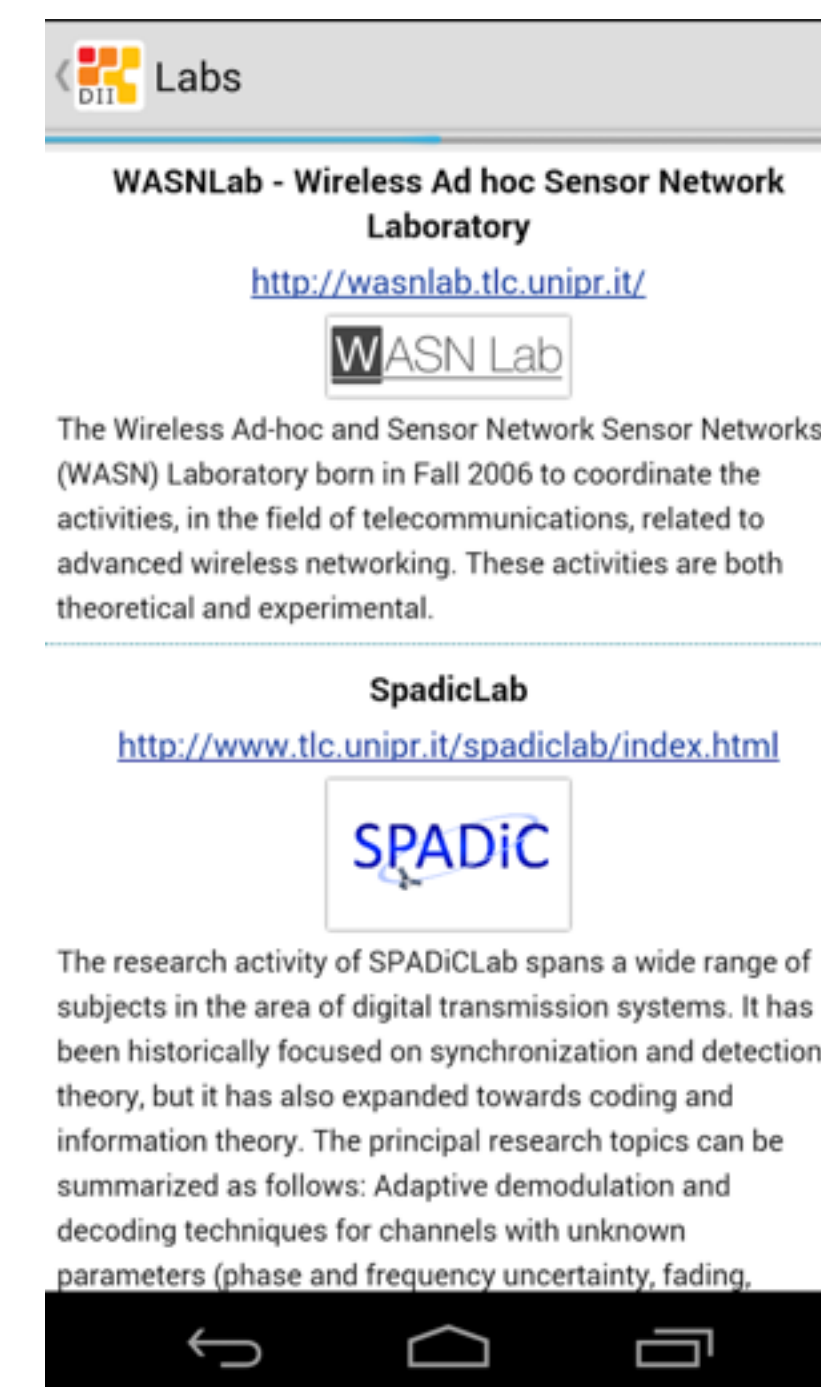
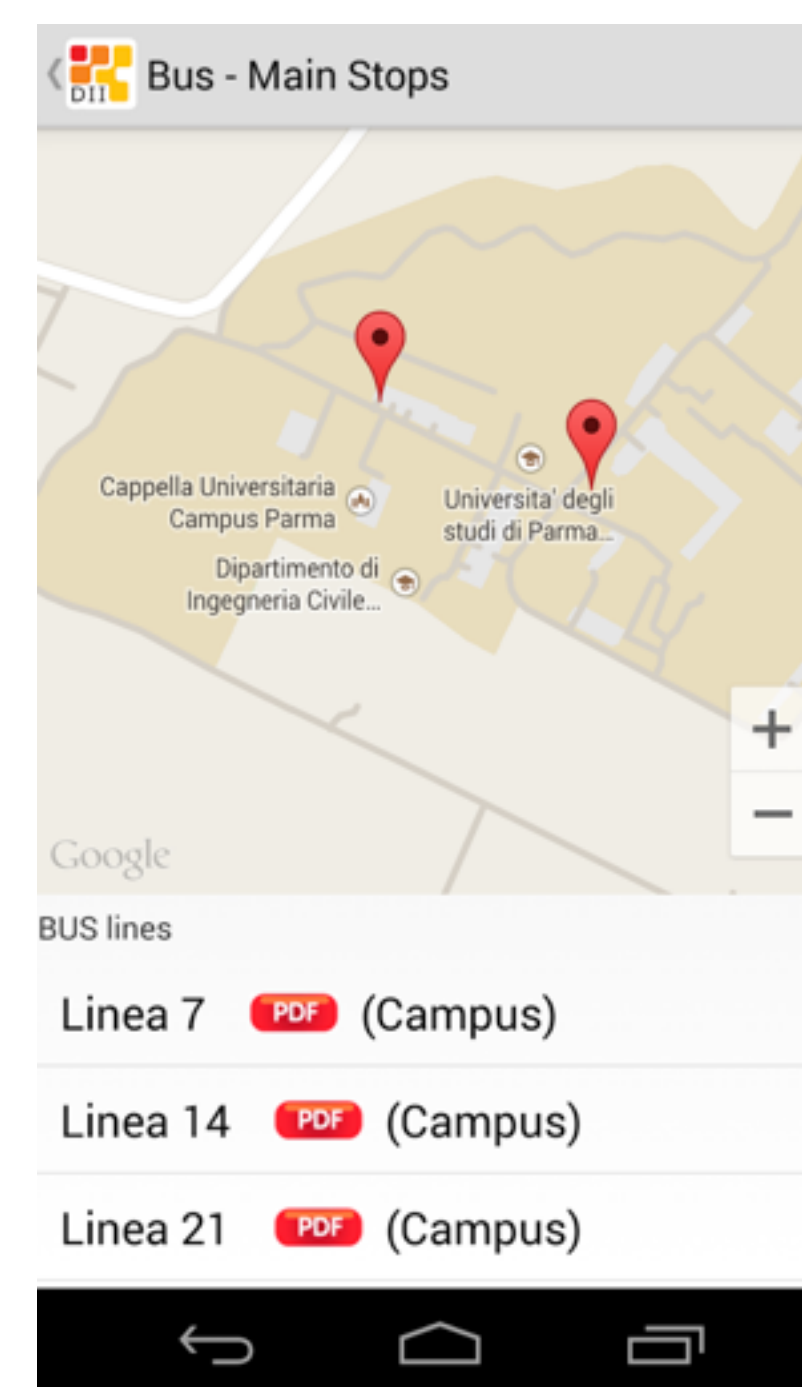
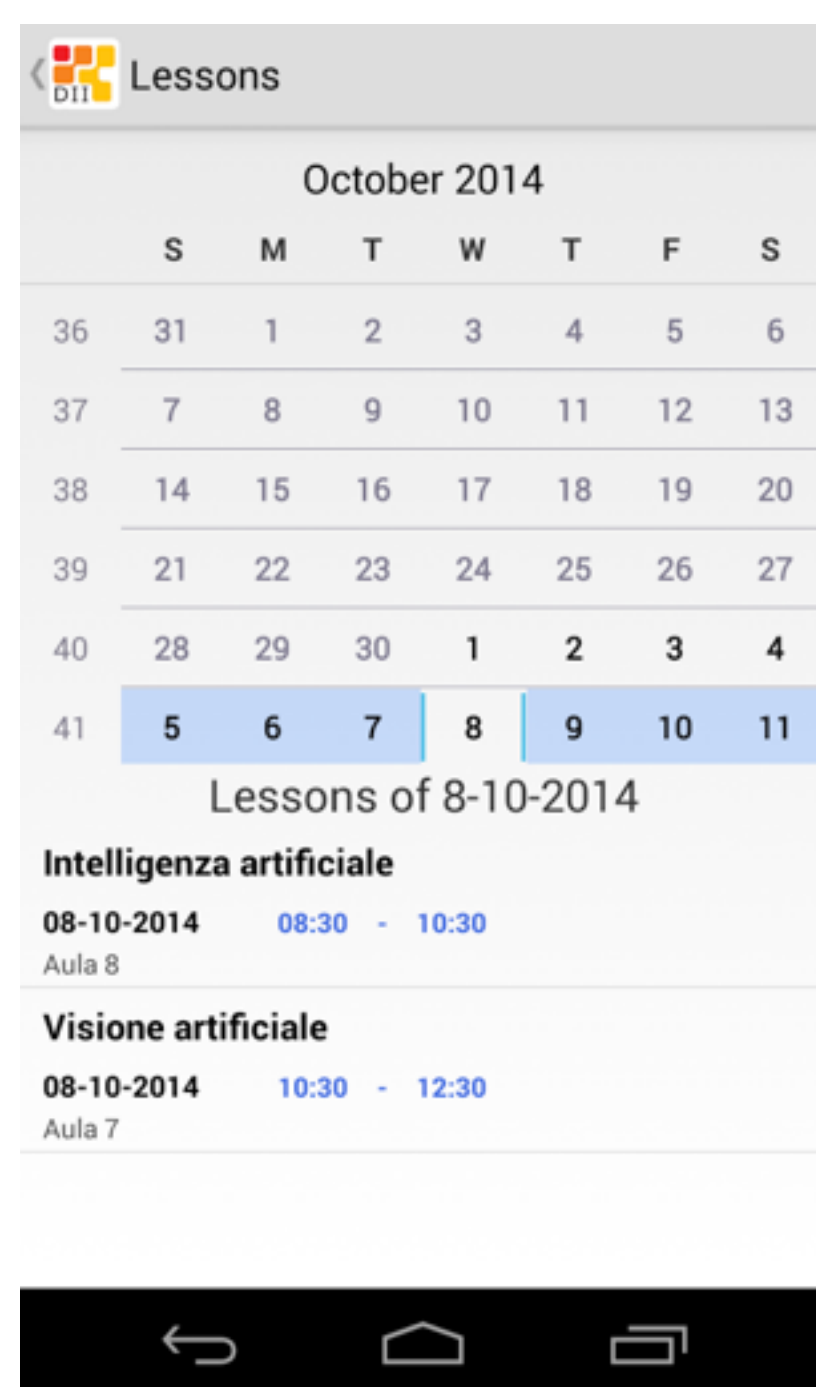
Past Projects



Past Projects



DII Mobile Application



<https://play.google.com/store/apps/details?id=it.unipr.ingegneria&hl=en>

Reception hours

- Where: Sala professori sede didattica
- When: Monday 12:30 AM - 1:30 PM (after lecture)

Send an email to book for an appointment!

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