

# Mobile Application Development

---

Produced  
by

David Drohan ([ddrohan@wit.ie](mailto:ddrohan@wit.ie))

Department of Computing & Mathematics  
Waterford Institute of Technology

<http://www.wit.ie>



Waterford Institute of Technology  
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE



# Background & Introduction

---





# Outline

---

- ❑ My Background
- ❑ Content Description
- ❑ Structure
- ❑ Assessment
- ❑ Labs & Case Study



# My Background \*

---

- ❑ David Drohan BSc.,MSc.
- ❑ Lecturing Software Development since 1995
- ❑ Currently delivering Mobile & Web Development Modules on 3<sup>rd</sup> year, 4<sup>th</sup> year and MSc Programmes
  
- ❑ Contact details are
  - [ddrohan@wit.ie](mailto:ddrohan@wit.ie) (email)
  - @daithid73 (twitter)



# Content Description \*

---

- ❑ Design, build and deploy a multi-screen mobile application incorporating an intuitive and efficient navigation mechanism.
- ❑ Structure the implementation using accepted best-practice with respect to patterns, frameworks and tools.
- ❑ Incorporate localised persistence models + possibly simple access to remote services.
- ❑ Possibly introduce context services such as location/camera and/or other sensor access.



# Structure \*

---

## ☐ Week 01

- Introduction to Android
- Android Anatomy

## ☐ Week 02

- Activities & App Navigation
- Application Design

## ☐ Week 03

- Persistence Mechanisms
- Assignment Submissions (Git Repo & Youtube video link)



# Assessment \*

---

- 100% Continuous Assessment
  - 1 Team Based Assignment (Teams of 3) – Due week 3
  - Project Idea is...

A Small Sports App to Manage my Triathlon Training ☺  
Swimming / Cycling / Running  
750m / 20Km / 5Km  
Keep track of everything I do



# Practical Labs Overview \*

---

## □ We'll Cover

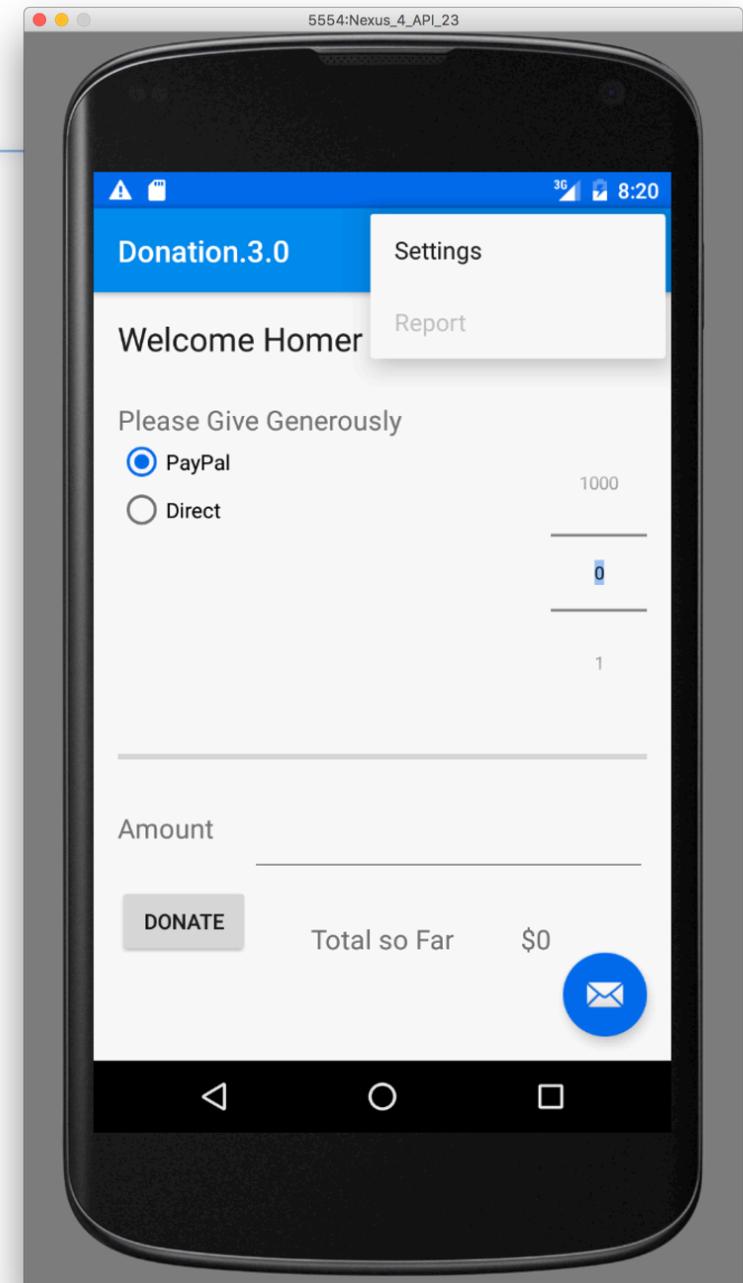
- Setting Up/Using Android Studio
- The classic “Hello World” (in an Android App)
- A “Donation” Case Study (next slides)
  - we'll develop a few different versions to demonstrate the use of some of the most common features of an Android App.
- Some Theory & Concepts along the way...

# Case Study

❑ **Donation** – an Android App to keep track of donations made to ‘*Homers Presidential Campaign*’.

## ❑ App Features

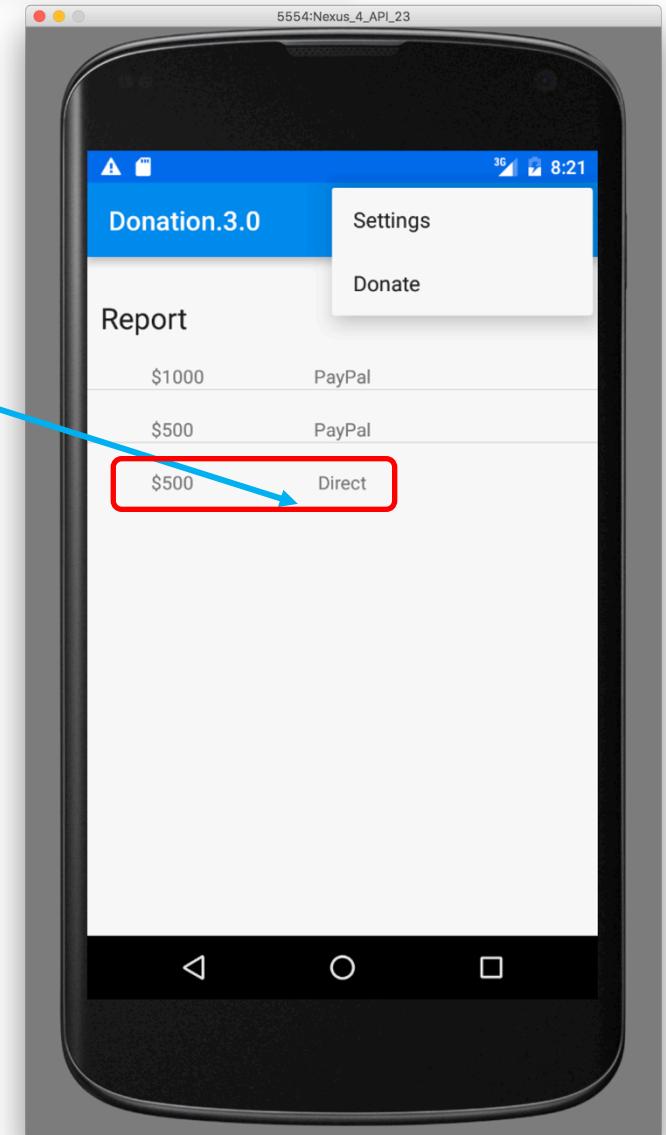
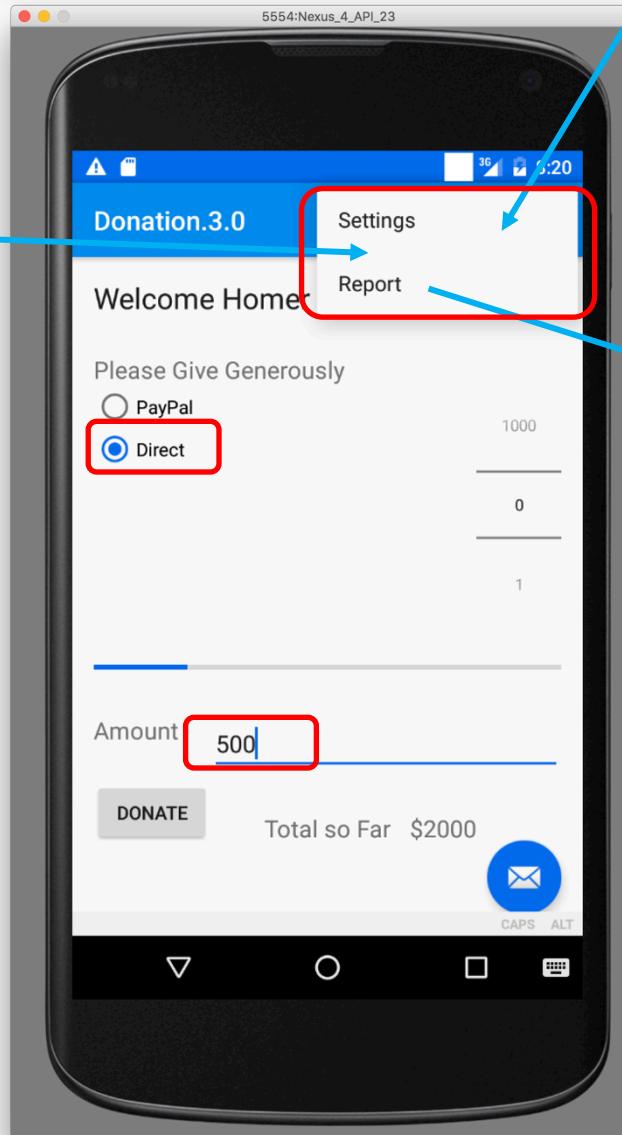
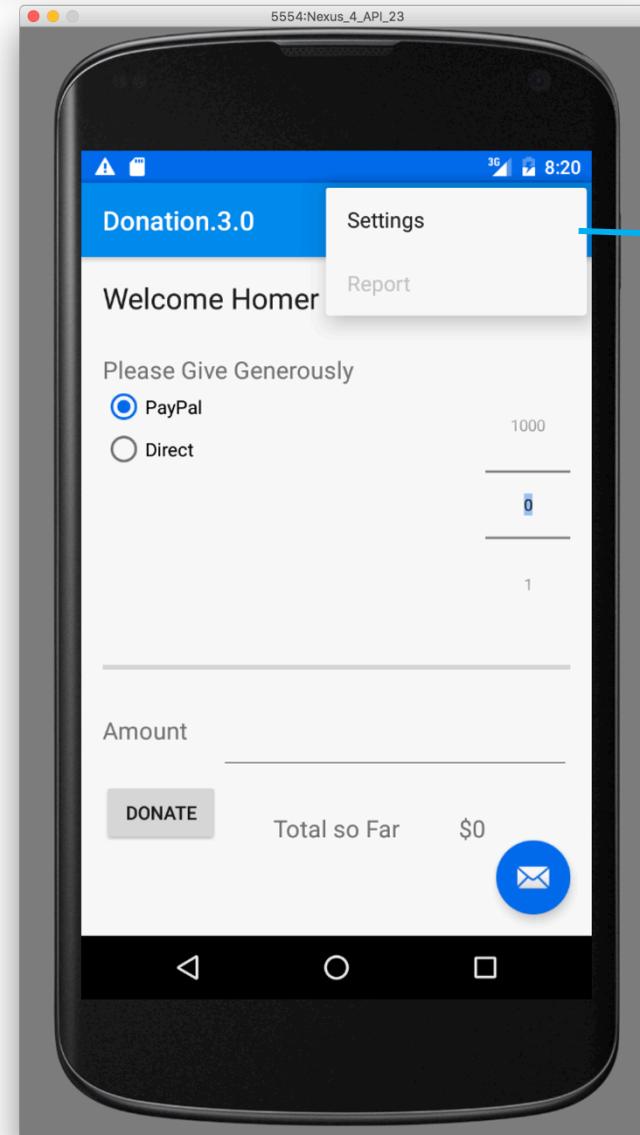
- Accept donation via number picker or typed amount
- Keep a running total of donations
- Display report on donation amounts and types
- Display running total on progress bar





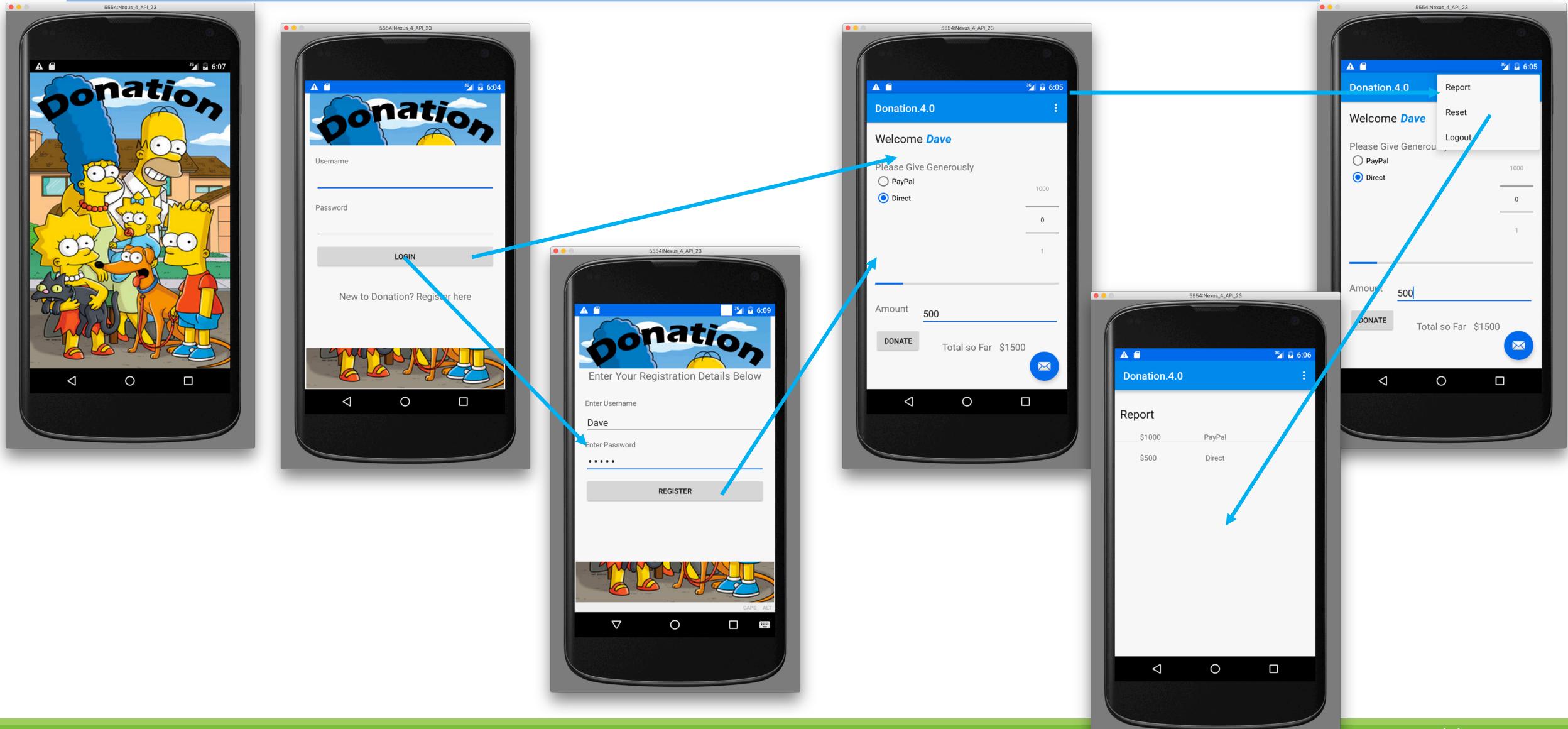
# Donation 3.0 \*

Custom Menu





# Ultimate Donation





# Resources

---

[ddrohan.github.io](https://ddrohan.github.io)

[moodle.wit.ie](https://moodle.wit.ie)



---

# Questions?



Thanks!

