

# TaxiCounter Android App

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# Content

- Android Operating System
- Development Tools
- Taxi Counter Algorithm Design
- Development Process

ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ

# Android Operating System

- Android is a Linux-based operating system and software platform for smart phones and tablets.
- Android supports wireless communication using
  - 3G Networks
  - 4G Networks
  - 802.11 Wi-Fi Networks
  - Bluetooth Connectivity
- Android application developed by JAVA and C/C++ language.

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# Development Tools



Πανεπιστήμιο Πειραιώς

# Development Block

Activity

- UI Component Typically Corresponding to one screen.

Intent Receiver

- Responds to notifications or status changes. Can wake up your process.

Service

- Faceless task that runs in the background.

Content Provider

- Enable applications to share data.

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# Taxi Counter Logic

- Application Mission is to cost accounting Taxi route based to the Original Taximeter Counter Algorithm.
- The User should start the app, select the hire category and press start.
- After that, the app monitors the location change and add cost per meter to total cost.
- Total Cost will be displayed at the end of the Route, when user press the Stop Button



# Taxi Counter Prerequisites

- Minimum Android Version: HoneyComb (v 3.0)
- Android Version capable of showing Google Maps
- Internet Connectivity (Wi-Fi or at least GPRS)
- GPS

Πανεπιστήμιο Τεχνολογίας

# Application Details

- Possible Users would be anyone using or thinking to use a taxi.
- Cost accounting will be based on the accounting rules for Taxi cabs in Greece
- Real Time Cost Calculation
- Real Time Route Print in Google Maps

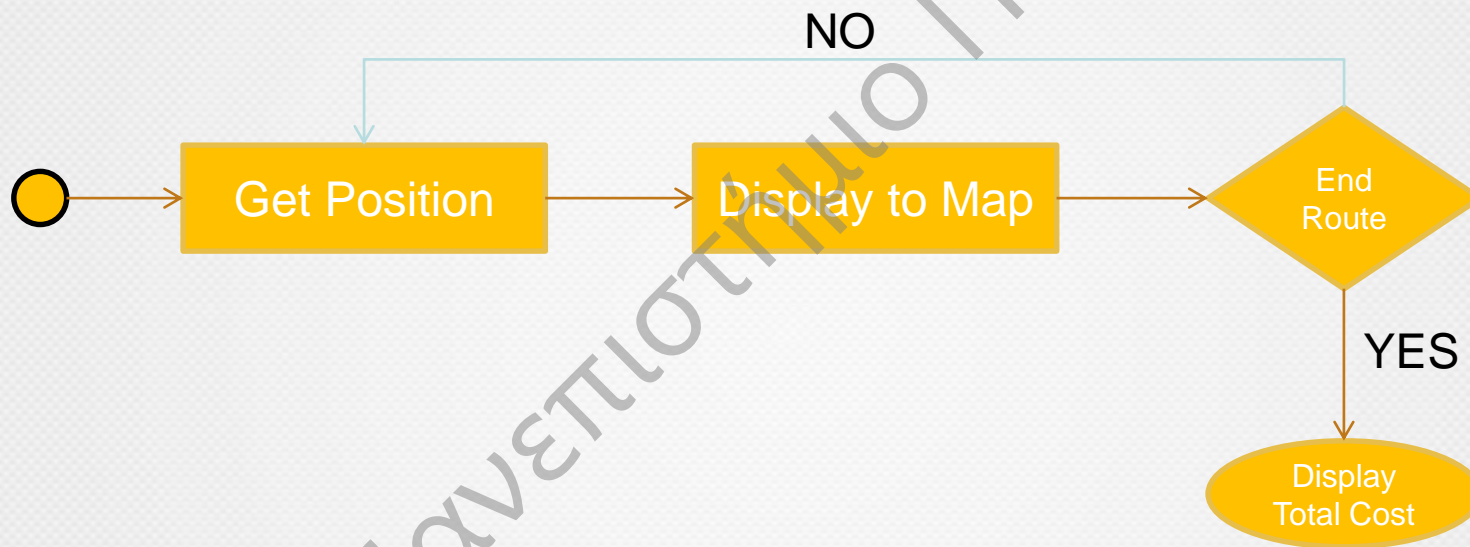
# Application Accounting Rules

Basic Taximeter charge is **0.00068€/Meter**. In case of waiting the charge is **10,85€/Hour**. Additional Charges applied in the following cases:

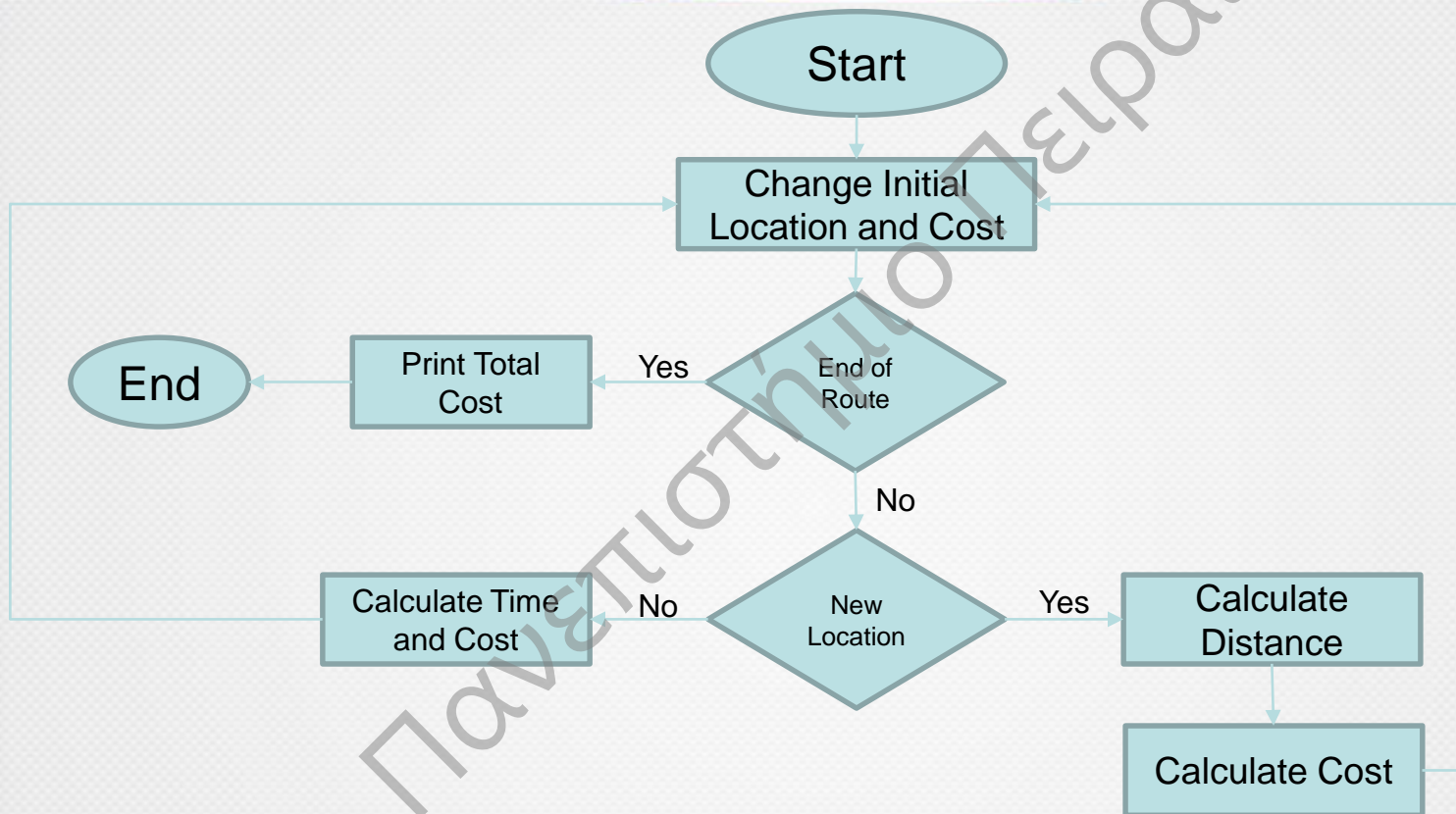
- From/To the Airport: **2.30€**
- From/To Eleytherios Venizelos Airport: **3.40€**
- From/To Macedonia Airport: **3.16€**
- From/To Railway Station or the Harbor: **0,95€**
- Night Drive (**00:00-05:00**): **0.00119€/Meter**,
- Radio Taxi: **1.70€**
- Appointment: **3.00€**

Taxi drive minimum charge is **3,90€**.

# Taxi Counter Algorithm Design(1/2)



# Taxi Counter Algorithm Design(2/2)



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# Application Libraries

- **Google Play Services:** With Google Play services, we could take advantage of the latest, Google-powered features such as Maps, Google+, and more. A new Google API Key have been created for the Taximeter Application.
- **Android Support Libraries:** Including the Support Libraries in your Android project is considered a best practice for application developers, depending on the range of platform versions your app is targeting and the APIs that it uses.

# Development Process(1/2)

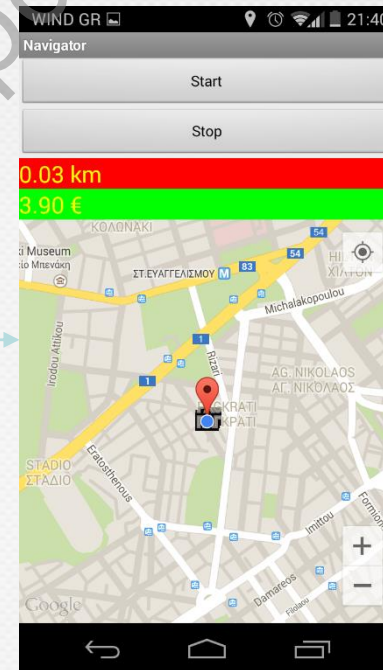
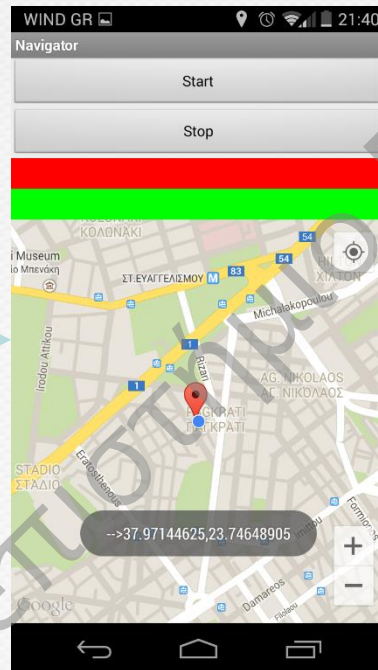
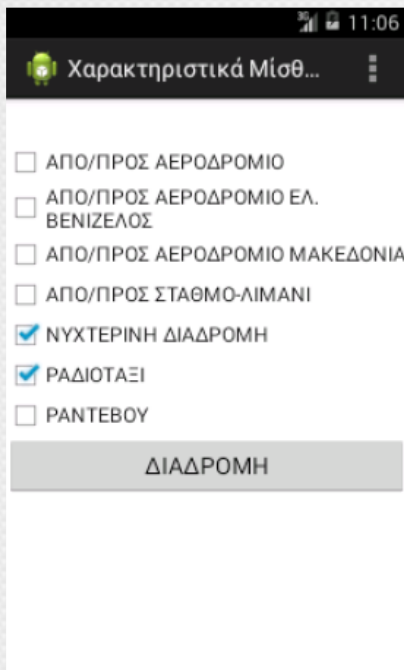
- Create Google API Key
- Install Google Play Services Libraries
- Install Android Support Libraries
- Configure Manifest file:
  - Configure Package Name
  - Display Name of the Application
  - API Versions are going to be used
  - Version of the Application
  - Application Rights the Application needs
  - Activities, Content Providers, Services etc. are going to be used by the application.



# Development Process(2/2)

- Layout Design
- Create MainActivity.java File holding the Basic Process of the Application.
- Create LandMark.java File holding functions to represent location on the map.
- Create FeaturesActivity.java File holding functions to control extra charges.

# Application Screenshots



# Taximeter Application

- Questions?

Thank You



Πανεπιστήμιο Πειραιώς