Telephony

Introduction

- The android platform includes the PhoneApp application through which we can initiate and receive phone calls.
- This application embodies the functionality of a mobile telephone.

Initiate Phone Calls

- Through the use of Intent objects properly configured in our code we can initiate the phone application in order to perform a phone call.

```
...
Intent callIntent = new Intent(Intent.ACTION_CALL);
callIntent.setData(Uri.parse("tel:9785551212"));
startActivity(callIntent);
...
```

The `android.telephony` Package

- This package includes a set of classes that can be used for monitoring the state of android's mobile network connection.
- This package includes two separated packages dedicated for the GSM and the CDMA networks.

The `CallLocation` Class

- This class provides methods for getting information about the geographical location of the handset.

The `PhoneStateListener` Class

- This is a listener class for monitoring changes in specific telephony states of our handset.
- Using this class we should extend it and and override those methods we are interested in. Passing over the new instantiated object to the `TelephonyManager.listen()` method we can be notified whenever a change takes place in the telephony state of our handset.

The `ServiceState` Class

- This class provides various methods through which we can get information about the current mobile telephone network provider.

The `TelephonyManager` Class

- This class provides us with information about the telephone number, the state of the mobile service, the device software version, the name of the operator, the radio technology currently in use on the device as well as various other related information.

Security Permission

- In order to get information about the telephony state we should set the following uses permission:
  READ_PHONE_STATE
- In order to change the telephony state we should set the following uses permission:
  MODIFY_PHONE_STATE