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Nota di contenuto	Cover; Copyright; Credits; About the Author; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1: Getting Started with QGIS; About QGIS; Installing and running QGIS; Understanding QGIS concepts; Linking QGIS and Python; Exploring the Python Console; Examining a Python plugin; Writing an external application; Summary; Chapter 2: The QGIS Python Console; Using the console; Working with geospatial data in the console; Scripting the QGIS user interface; The status bar; The message bar; Progress indicators; QGIS logging; Custom dialogs and windows; Summary Chapter 3: Learning the QGIS Python API About the QGIS Python APIs; Deciphering the C++ documentation; Organization of the QGIS Python libraries; The qgis.core package; Maps and map layers; Coordinate reference systems; Vector layers; Raster layers; Other useful qgis.core classes; The qgis.gui package; The QgisInterface class; The QgsMapCanvas class; The QgsMapCanvasItem class; The QgsMapTool class; Other useful qgis.gui classes; Using the PyQGIS library; Analyzing raster data; Manipulating vector data and saving it to a shapefile; Using different symbols for different features within a map Calculating the distance between two user-defined points Summary; Chapter 4: Creating QGIS Plugins; Getting ready; Understanding the QGIS plugin architecture; Creating a simple plugin; The plugin development process; Using the Plugin Builder; Automating the build

process; Plugin help files; Unit testing; Distributing your plugin; Writing a useful plugin; Plugin possibilities and limitations; Summary; Chapter 5: Using QGIS in an External Application; Introducing Lex; Getting the data; Designing the application; Creating the application's framework; Adding the user interface  
Connecting the actions  
Creating the map canvas; Labeling the points; Filtering the landmarks; Implementing the zoom tool; Implementing the pan tool; Implementing the explore mode; Further improvements and enhancements; Summary; Chapter 6: Mastering the QGIS Python API; Working with symbol layers; Combining symbol layers; Implementing symbol layers in Python; Implementing renderers in Python; Working with custom map layers; Creating custom map canvas items; Using memory-based layers; Summary; Chapter 7: Selecting and Editing Features in a PyQGIS Application; Working with selections  
Using the layer editing mode  
Adding Points; Editing Points; Deleting Points and other features; Adding lines and polygons; Editing lines and polygons; Summary; Chapter 8: Building a Complete Mapping Application using Python and QGIS; Introducing ForestTrails; Designing the ForestTrails application; Creating the application; Laying out the application; Defining the toolbar icons; The constants.py module; The forestTrails.py module; The mapTools.py module; The ui\_mainWindow.py module; Running the application; Obtaining the basemap; Defining the map layers; Defining the map renderers  
The Pan Tool

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## Sommario/riassunto

If you are an experienced Python developer who wants to create your own geospatial applications with minimum fuss, this is the book for you. While some familiarity with mapping applications would be an advantage, no prior knowledge of geospatial concepts is required. Even if you've never used QGIS before, this book will quickly get you up to speed.

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