KOENIG SOLUTIONS · COURSE OUTLINE

# Android with Python: Kivy Layouts & Widgets

Learn to build Android apps with Python and Kivy, from layouts and widgets to events, projects and deployment.

| 6 | 48 |
| --- | --- |
| MODULES | TOPICS |

## COURSE OVERVIEW

This course introduces mobile application development approaches and the Kivy framework, covering its architecture, KV language and installation on Windows with PyCharm. It then examines Kivy layouts such as Float, Anchor, Box, Page, Grid and Relative, followed by UX widgets including buttons, checkboxes, progress bars, sliders and list views. It covers events and properties such as touch events, screen transitions and object properties, then applies these concepts in a Kivy app project that requests data from a URL, uses an API key, and manages popups and storage. It ends with generating an Android APK and publishing the app to the Google Play Store.

## WHO THIS COURSE IS FOR

**Mobile App Developers** | **Python Developers** | **Android Developers** | **Software Engineers** | **UI/UX Developers**

## LEARNING OBJECTIVES

- Describe mobile development approaches and Kivy architecture
- Install Python, Kivy and PyCharm to set up a development environment
- Apply Kivy layouts such as Float, Box, Grid and Relative Layout
- Implement UX widgets such as buttons, checkboxes and sliders
- Explain events and properties such as touch events and transitions
- Develop a Kivy app project that requests data from a URL
- Configure storage and popups within a Kivy application
- Deploy an Android APK and publish it to the Google Play Store

COURSE SYLLABUS

# 6 Modules, 48 Topics

## 01

## Introduction

**INTRODUCTION TO MOBILE APPLICATION DEVELOPMENT**

Native App · Hybrid Apps · Web Apps

Android App with Java/Kotlin · Kivy Introduction and Overview

**KIVY INSTALLATION**

How to Download and Install Python · Install Kivy on Windows · Installing PyCharm (IDE)

Architecture of Kivy · KV Language

**KIVY BASICS**

Import Kivy · RunTouch App · Using Hint · Orientation

## 02

## Layouts

**TOPICS**

Float Layout · Anchor Layout · Box Layout · Page Layout · Grid Layout · Relative Layout

## 03

## UX Widgets

**TOPICS**

- Button Bind in Kivy
- Button Super
- Label and Button
- ActionBar
- Checkbox and Radio Button
- Progress Bar
- Scatter
- Canvas
- AsyncImage
- Dropdown in Kivy
- File Chooser in Kivy
- ListView in Kivy
- Slider in Kivy

## 04

## Events and Properties

**TOPICS**

Introduction of Events and Properties · Touch Event · Input and Screen Transition · Kivy Object Property

05

## Kivy App Project

TOPICS

- Requesting Data from URL
- Obtain API Key
- List Adapter & List Item Button
- Project Root Class
- Location Button
- Current Project Class
- Display Search and Clear Search Info in Our App
- Popup
- Storage

06

## Deploying the Kivy Application

TOPICS

Generate Android APK for Google Play Store · Publishing App to Google Play Store

WHAT IS INCLUDED

# Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

## Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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