PRESENTS

Roadmap for App becoming a

Successful App Developer

App Developer Roadmap for Beginners

Following is the roadmap to learning **App developer** skills for a total beginner. It includes FREE learning resources for technical skills (or tool skills) and soft (or core) skills

Prerequisites: You must have skills or interests to build skills in Coding . Without these two you cannot become an App developer.

Total Duration: **3 Months** (**2 hours** of study Every Day) Also,

Week 1-2:Learn Programming Basics

- Start by learning a programming language that's used in app development: Java or Kotlin for Android, Swift for iOS, and Dart for Flutter.

- Learn basic programming concepts such as data types, loops, functions, and object-oriented programming.

Resources:

- **Learn Java in One Video (https://www.youtube.com/watch?v=elrMbAQSU34)**
- **Kotlin for Beginners (https://www.youtube.com/watch?v=F9UC9DY-vIU)**
- **Swift Programming Tutorial (https://www.youtube.com/watch?v=comQ1-x2a1Q)**
- **Cross-Platforms Flutter-(https://youtu.be/1bQwDO88Gyw?feature=shared)**
- **React-native-(https://youtu.be/ZBCUegTZF7M?feature=shared)**

Week 3: Understand Mobile App Architecture

- Understand the basic architecture patterns used in mobile apps, such as MVC (Model-View-Controller) and MVVM (Model-View-ViewModel).

- Learn how to structure your app for scalability and ease of maintenance.

- **Resources:**

- **Mobile App Architecture in Android -https://youtu.be/4ZkEeygRECQ?feature=shared**
- **Introduction to MVVM in Android-**
  -https://youtu.be/4QuWDWtxBMQ?feature=shared
- **Understanding MC and MVVM**
  - **- https://youtu.be/DUg2SWWK18I?feature=shared**

Week 4-5: Learn Android/iOS Development

- Install Android Studio and Xcode, the official tools for Android and iOS development.

- Start building basic mobile apps for Android using Java or Kotlin, and for iOS using Swift.

- **Resources:**

  - **Android Development for Beginners (Java) (https://www.youtube.com/watch?v=fis26HvvDII)**

- **Complete Android Development Course (https://youtu.be/fis26HvvDII?feature=shared)**
- **iOS Development with Swift (https://www.youtube.com/watch?v=FcsY1YPBwzQ)**

Week 6-7: Learn Cross-Platform Development (Flutter)

- Learn how to build apps that work on both Android and iOS using Flutter.

- Flutter uses the Dart language, which allows you to build beautiful native apps with a single codebase.

- Resources:

  - Flutter Crash Course Beginners

    -https://www.youtube.com/watch?v=x0uinJvhNxI by Academind

  - Flutter Tutorial - Build a Complete App https://www.youtube.com/watch?v=VPvVD8t02U8) by FreeCodeCamp

Week 8: Master User Interface (UI) Design

- Learn the basics of UI/UX design to create visually appealing and user-friendly apps.

- Understand Material Design (for Android) and UIKit (for iOS) to create consistent and engaging user interfaces.

-**Resources:**

- **UI/UX Design for Beginners (https://youtu.be/c9Wg6Cb_YlU?feature=shared)**
- **Material Design in Android (https://www.youtube.com/watch?v=QgMQeLymAdU)**
- **UIKit Tutorial for iOS - https://youtube.com/playlist?list=PLxsJPydbneZUw9L0KnrTsy2ws-Vh56e7l&feature=shared**

Week 9-10: Learn About Databases & APIs

- Learn how to add database functionality to your apps using SQLite, Firebase, or other databases.

- Learn how to connect your app to REST APIs to fetch data from the web.

Resources:

- **Android Firebase Tutorial (https://www.youtube.com/watch?v=JjfSjMs0lmQ)**
- **SQLite Tutorial for Android (https://www.youtube.com/watch?v=aQAIMY-HzL8)**
- **Working with APIs in Android (https://www.youtube.com/watch?v=Ev6EcQwvFSs&list=PLirRGafa75rRe9PJ9t-5KDEuCmfsA_rZr)**

Week 11: Debugging and Testing

- Learn to debug your code effectively to solve errors and improve app stability.

- Learn how to write unit tests to make sure each part of your code works as expected.

Resources:

- **Debugging Android Apps (https://youtu.be/ln5hc-zprEM?feature=shared)**
- **Testing Android Apps (https://youtube.com/playlist?list=PLQkwcJG4YTCSYJ13G4kVlJ10X5zisB2Lq&feature=shared)**
- **Unit Testing in Swift (https://youtu.be/opkU2UuPk0A?feature=shared)**

Week 12: Learn Version Control with Git

- Learn how to use Git to manage versions of your code.

- Collaborate with other developers using GitHub to contribute to projects and improve team workflow.

- Resources:

  - Git Tutorial for Beginners

    - https://www.youtube.com/watch?v=RGOj5yH7evk) by freeCodeCamp

  - Android Studio Git Integration

    - https://www.youtube.com/watch?v=8i2EJ7s7bhA) by Stevdza-San

Week 13-14: Deploying Your App

- Learn how to publish your app on the Google Play Store for Android or the Apple App Store for iOS.

- For cross-platform, learn how to publish apps for both Android and iOS from a single codebase.

- Resources:

Resources:

- **How to Publish Android App on Play Store (https://youtu.be/5GHT4QtotE4?feature=shared)**
- **Submit an iOS App to App Store (https://youtu.be/kTllKrpM234?feature=shared)**

- publishing Flutter Apps

-https://www.youtube.com/watch?v=8xngz8PViFQ) by Reso Coder

Week 15-16: Advanced Topics

- Dive into advanced app development topics like integrating Machine Learning models, Augmented Reality, or connecting IoT devices.

- Explore frameworks and libraries for implementing these features.

Resources:

- **Android Machine Learning with TensorFlow (https://www.youtube.com/watch?v=3TWf3LwJXoM&list=PLxefhmF0pcPlzJUW5ep10lMavUtUj3ZD4)**
- **ARCore Augmented Reality in Android (https://www.youtube.com/watch?v=bRdW9f1LDjc)**
- **Swift ARKit Tutorial for iOS (https://www.youtube.com/watch?v=f3xFpRWZEz8)**

Week 18-20: Practice and Portfolio Projects

- Build Your Own Apps: Start with a small project like a To-Do list, then move on to a weather app, chat app, or e-commerce app.

- Polish and Deploy: Create a complete app, publish it, and add it to your portfolio.

- Suggestions for Projects:

  - To-Do List: A simple app for managing tasks.

  - Weather App: Fetch real-time weather data from an API.

  - E-commerce App: Create a simple app with product listings, a cart, and checkout features.

About Hackathon:

An hackathon is a focused event where participants come together to create mobile or web applications within a limited time, typically 24-48 hours. Teams work intensively on ideation, design, development, and presentation of a functional app prototype. It's a great way for developers to enhance skills, network, and potentially launch new products or startups.

-Do participate in hackathon which improves our knowledge..

-Explore more domains don't stuck in single domain

-There are more domains in P2P Hub explore it..