

Developer Student Clubs

JSPM's BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY & RESEARCH, PUNE

ANDROID STUDY JAM 2021 - JSPM BSIOTR

Tracks for Android Study Jams:

New to Programming Track: Learn the basics of building Android apps with the Kotlin programming language and develop a collection of simple apps to start your journey as an Android developer!

Prior to Programming Experience Track: First, learn the essentials of the Kotlin programming language. Then learn the fundamentals of Android development and best practices by building a variety of Android apps in Kotlin.

These valuable skills will enable students to build even more compelling projects for the Solution Challenge 2021. Here are a few details to help you kick-off Android Study Jams:

What students have to do?

Pick either New to Programming Track or Prior Programming Experience Track as per their current knowledge.

Complete all pathways of that track and proceed to another track (in case of those starting with New to Programming Track first).

Earn digital badges on Google Developer's profile and certificate of completion.

For further information about the Program or anything, feel free to contact Android study Jam Facilitator:

Devendra Tayade, ASJ Facilitator 2021 GDSC BSIOTR

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Training content:

Week 1

Unit 1 - Introduction to Kotlin, Android app development -

- 1. <u>Introduction to Kotlin</u> For participants who do not have prior knowledge of programming.
- 2. Create your first app
- 3. Build a basic layout
- 4. Add button to an app.

Week 2

Unit 2 - Layouts

- 1. Get user input in an app
- 2. Get user input in an app Part 2
- 3. Display a scrollable list

Week 3

Unit 3 - Navigation

- 1. Navigate between screens
- 2. Introduction to Navigation component
- 3. Architecture components
- 4. Advanced navigation app example

Week 4

- 1. Coroutines
- 2. Get and Display data from the internet

Unit 5 - Data persistence

- 1. Introduction to SQL, Room and Flow
- 2. <u>Use room for data persistence</u>

Week 5

Unit 6 - Task Manager

1. Scheduled tasks with work manager

(Optional) Bonus add-ons to help you design a good app

- 1. Android Developers tools
- 2. Introduction to Associate Android Developer Certification (link to certification)