



Andhra Pradesh State Skill Development Corporation

(Department of Skill Development, Entrepreneurship & Innovation, Govt. of Andhra Pradesh)



Hands-On Workshop on Google Android Developer Fundamentals

Workshop Objectives & Outcomes:

Objectives:

APSSDC in association with Google organizes Android Developer fundamentals workshop to empower the students across Andhra Pradesh with Android App Development skills. Android Developer Fundamentals is designed by Google Developer training team. Android Basic programming concepts starting from hello world app to developing data sharing apps will be delivered in this Workshop.

Outcomes:

- After this workshop students will be good at Android App Development which helps them to get better Job opportunities.
- This will help APSSDC to set up Android clubs at colleges and design advanced training modules on Mobile Development for students and benefit them even more.

About Android:

Android is an operating system and programming platform developed by Google for smart phones and other mobile devices (Such as Tablets). It can run on many different devices from many different manufacturers. Android includes a software development kit for writing original code and assembling software modules to create android apps for Android users. It also provides a market place to distribute apps. All together, Android represents an eco system for mobile Apps.

Duration of the Workshop:

3 days X 7 Hours a day = 21 Hours

Pre – Requisites:

1. JAVA Object Oriented Programming skills.

Hardware Requirements:

1. Projector and Good Sound System with Microphone in the Lab is Mandatory
2. Operating System : windows/ Ubuntu/ Mac
3. RAM : 8 GB (recommended)
4. Processor: i3 / i5 / i7
5. Internet Connectivity for All Systems is Mandatory.

Software Requirements:

1. Latest Version of JAVA – [To Download Click Here](#)
2. Latest Version of Android Studio – [To Download Click Here](#)

Target Audience:

Illrd Year and Final Year CSE/ IT Students.

Minimum Required Attendees: 60

Fee per Student: Rs 250/- per phase.

NOTE: PHASE 2 workshop will be conducted after 30 days from the closing date of Phase 1 workshop. In the mean time APSSDC team will follow up with the students and try to make them complete the given assignments by the trainers. If there are any sessions needed for doubts clarification, our team will take care of them.

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Phase-1 Course Content:

S.NO	UNIT TITLE	LESSON TITLE	
1	LEARN JAVA FOR ANDROID		DAY 1
2		Overview Of JAVA OBJECT ORIENTED PROGRAMMING	
3	UNIT 1 - Get Started		
4		Lesson - 1 : Build your First Application	
5		Install Android Studio and Run HelloWorld!	
6		Making your First Interactive UI	
7		Using Layouts	
8		Working with TextView elements	
9		Learning About Available Resources	
10			
11		Lesson -2 : Activities	
12		Create and Start Activities	
13		Activity Life Cycle and State	
14		Activities and Implicit Intents	
15			
16		Lesson 3: Testing, Debugging and Using Support Libraries	
17		Using the Debugger	
18		Testing your Application	
19		Using Support Libraries	
20	UNIT 2- User Experience		DAY 2
21		Lesson 4: User Interaction	
22		Using Keyboards, input Controls, Alerts and Pickers	
23		Using an Options Menu and Radio Buttons	
24		Using the App Bar and Tabs for Navigation	
25		Creating a Recycler View	
26			
27		Lesson 5: Delightful User Experience	
28		Drawables Styles and Themes	
29		Material Design: Lists, Cards and Colors	
30		Supporting Landscape, Multiple Screen Sizes and Localization	DAY 3
31			
32		Unit 6: Testing Your UI	
33		Using Espresso to test your UI	
34			
35	Unit 3 - Working In The Background		
36		Lesson 7: Background Tasks	
37		Create an Async Task	

38	Connect to the Internet with Async Task and Async Task Loaders
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Phase-2 Course Content:

S.NO	UNIT TITLE	LESSON TITLE	
1	Unit 3 - Working In The Background		Day 1
2		Lesson 7: Background Tasks	
3		Broadcast Receivers	
4			
5		Lesson 8: Triggering Scheduling and Optimizing Background Tasks	
6		Notifications	
7		Alarm Manager	
8		Job Scheduler	
9			
10	Unit 4 - All About Data		DAY 2
11		Lesson 9: Preferences and Settings	
12		Shared Preferences	
13		Adding Settings to an App	
14			
15		Lesson 10: Storing data using SQLite	
16		SQLite Database	
17		Searching a SQLite Database	
18			
19		Lesson 11: Sharing Data with Content Providers	DAY 3
20		Implementing a minimal List Content Provider	
21		Adding a content Provider to your Database	
22		Sharing content with other Applications	
23			
24		Lesson 12: Loading Data Using Loaders	
25		Loading and Displaying data fetched	
26			
27	Unit 5 - Publishing your App		
28		How to publish your apps on Google Play Store	

For Queries about this Workshop:

Please contact the following persons for any queries you have related to this workshop

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