Android Development in Kotlin

The following is a timetable of Android Workshop
Starting Date: 31 July 2022 - 28 August 2022
Time: 11 AM - 4 PM
Instructor: Shaima Alghamdi

instructor	Topics	Week/Day
	WEEK 1	
Shaima	Intro to Android: • Get to Know Android OS • Opportunities as Android Developer • Resources • Download Android Studio • Create your First Project • SDK, API Levels • A look into Android Studio	Week: 1 Day: 1 Sunday ✅
Shaima	**Unit 1: Kotlin Basics:** • Variables • Functions • Comments • Layouts in Android • Views and ViewGroups • Add Images to your App **Project:** InvitationApp TuwaiqApp	Week: 1 Day: 2 Monday ✅
Shaima	**Unit 1: Kotlin Basics:** • Classes and Objects • random() function • ConstraintsLayput **Project:**	Week: 1 Day: 3 Tuesday ✅

	Dice Roller App 1	
Shaima	**Unit 1: Kotlin Basics:** • Conditionals: when and if expressions • Add a button to an app • Click Events • Changing UI State • findViewById() **Project:** Dice Roller App 2	Week: 1 Day: 4 Wednesday ✅
Shaima	**Projects:** Build Lemonade App	Week: 1 Day: 5 Thursday ✅
	WEEK 2	
Shaima	Unit 2: **Layouts:** • Classes • Constructors • Inheritance (abstract, open, override, private) • `with` (formal definition) **Project:** Dwelling Class	Week: 2 Day: 1 Sunday ✅

Shaima	**Unit 2: Layouts:**
	• Build XML layout to take input: EditText, Switch, RadioGroup
	• Res folder:
	  ○ styles
	  ○ strings
	  ○ colors
	  ○ fonts
	
	Project:
	VAT App
		Week: 2
		Day: 2
		Monday
		✅

Shaima	**Unit 2: Layouts:**	Week: 2

	• Change App theme • Change App icon • Collections in Kotlin: Lists, Maps, Sets **Project:** VAT App Order List	Day: 3 Tuesday ✅
Shaima	**Unit 2: Layouts:** • Collections in Kotlin: Lists, Maps, Sets • Add dependencies in Gradle file • RecyclerView • Adapter • ViewHolder **Project:** Athkar App	Week: 2 ✅
Shaima	**Unit 2: Layouts:** • Data class • Use lists in Data source • CardView **Project:** Athkar App	Week: 2 Day: 4 Wednesday ✅
Shaima	**Project:** Athkar App	Week: 2 Day: 5 Thursday ✅
	WEEK 3	
Shaima	**Unit 3: Navigation:** • Navigate between screens • Activity and Intents • Stages of Activity Lifecycle **Project:** WordsApp	Week: 3 Day: 1 / 2 Sunday Monday ✅

	DessertApp	

Shaima	**Unit 3: Navigation:**
	 • Introduction to the Navigation component:
	  ○ NavGraph
	  ○ NavHost - Fragment Container
	  ○ NavController
	  ○ SafeArgs
	 • Fragments
	 • Stages of Fragments Lifecycle
	
	 Project:
	 WordsApp
		Week: 3
		 Day: 3 / 4
		 Tuesday
		 Wednesday
		 ✅

Shaima	**Unit 3: Navigation:**
	 • Introduction to the App Architecture:
	  ○ UI Layer
	  ○ UI Controllers
	  ○ ViewModel
	  ○ LiveData
	
	 Project:
	 Unscramble App
		Week: 3
		 Day: 5
		 Thursday
		 ✅

	WEEK 4	

Shaima	**Unit 3: Navigation:**
	 • Introduction to the App Architecture:
	  ○ jetpack library
	  ○ UI Layer
	  ○ UI Controllers
	  ○ State Holders and UI State
	  ○ ViewModel
	  ○ ViewModel Lifecycle
	  ○ LiveData
	  ○ DataBinding
	  ○ Nullability
	  ○ Lamda Function
	  ○ Dialogs
		Week: 4
		 Day: 1
		 Sunday
		 ✅

	Project: **Unscramble App**	
Shaima	**Unit 3: Navigation:** • Navigation Component • ViewModel Overview • sharedViewModel • Navigation and the back stack • elvis operator • Data Binding • Layout and binding expressions • Transform LiveData • SimpleDateFormat • `apply` scope function in Kotlin • Compile-time Constants **Project:** **Cupcake App**	Week: 4 Day: 2 Monday ✅
Shaima	**Final Project**	Week: 4 Day: 3 Tuesday
Shaima	**Final Project**	Week: 4 Day: 4 Wednesday
Shaima	**Final Project**	Week: 4 Day: 5 Thursday
Shaima	**Final Project Presentation**	Week: 5 Day: 1 Sunday

متطلبات المشروع النهائي

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