

Course Name: Mobile application development using flutter.

Hours: 120 h

Training time: 120 hours divided into 30 lectures, 4 hours per lecture.

Tools: zoom.

Trainer Name: Shady f. Samara.

Training Outlines:

Topics	# hours
<ul style="list-style-type: none">- Dart programming language- Data structure in Dart- Functions in dart- Exceptions- OOP in dart- Generic types- Null Safety	12
<ul style="list-style-type: none">- introduction to flutter framework- introduction to cross platforms- the importance of flutter and its strength points- Installing flutter in windows, mac, and Linux and prepare the flutter environment to develop apps.- flutter project structure folders- introduction to widgets- Widgets Lifecycle- Material app- App Theme- scaffold- Tabs with Tab Controller- drawer- Bottom Navigation Bar- Snack Bar- Dialogues- App Bar- Text- container, Expanded, Flexible- center- column- row- Stack- Margin vs. Padding- card- buttons- Images- pubspec.yaml file- Responsive design- sized Box- Gesture Detector	16

<ul style="list-style-type: none"> - Widget State - BuildContext and Context - Assets - keys 	
<ul style="list-style-type: none"> - List view - Grid view - Single child scroll view - List Tile - ExpansionTile <p>Forms:</p> <ul style="list-style-type: none"> - Form Widget - Global Key - Text Form Field instance - checkbox instance - Radio instance - switch instance - Call back methods - validation - saving data - submitting data <p>packages:</p> <ul style="list-style-type: none"> - pick image, use camera <p>Debugging Flutter Apps</p>	14
<ul style="list-style-type: none"> - Navigation in flutter - Routes, Named Routes, Error Routes - state management using provider 	15
<p>local storage:</p> <ul style="list-style-type: none"> - Sqlflite - Shared preferences - write on files 	12
<ul style="list-style-type: none"> - Introduction to firebase - Firebase database and storage - Firestore vs. Real-time database - Initializing firebase project - Connect ANDROID and IOS apps to firestore - Storing data in the firestore - Retrieving data from the firestore - Storing media in the firebase storage 	18

- firebase Authentication (email and password,gmail,facebook)	12
Handling with APIs	192
Google maps	6
Animation	3
Releasing apps for android and ios	3

Technical Training Projects

1. To do app, Calculator
2. Weather app, Prayers times app, Football matches times app, News app, Charging app
3. Ecommerce app with control panel.
4. EMI Calculator app
5. Chat app