WiFi Connectivity

Introduction

❖ The `WiFiManager` class is responsible for managing the Wi-Fi connectivity.

The `WiFiManager` Class

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❖ We can use the `WiFiManager` class for configuring the Wi-Fi connections, managing the current Wi-Fi connection, scan for access points and monitor for changes.

The `WiFiManager` Class

❖ We can get a `WiFiManager` object by calling the

  `Activity.getSystemService` method passing over the

  `Context.WIFI_SERVICE` string constant.

```
...
String service = Context.WIFI_SERVICE;
WifiManager wifi = (WifiManager)getSystemService(service);
...
```

User Permissions

❖ In order to use the Wi-Fi Manager we must first get the required

user permissions.

```
<uses-permission android:name="android.permission.ACCESS_WIFI_STATE"/>
<uses-permission android:name="android.permission.CHANGE_WIFI_STATE"/>
```

Scanning for Hot Spots

❖ We can easily scan for hot spots by calling the

`getScanResults()` method on our `WiFiManager` object.

❖ Each spot is represented by a `ScanResult` object.

```
...
List<ScanResult> results = wifi.getScanResults();
...
```

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Connecting Hot Spots

❖ In order to connect a Wi-Fi network you should first get a
`WifiConfiguration` object that represents the Wi-Fi
hotspot configuration.

Configured Networks

❖ Calling the `getConfiguredNetworks()` method on our

  `WifiManager` object we will get a list of

  `WifiConfiguration` objects that represent all Wi-Fi

  networks we can try to connect.

```
...
List<WifiConfiguration> list = wifi.getConfiguredNetworks();
...
```