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MAD Assignment - 1

(1) Based on your understanding identify a Pecent that has influenced the android Plateform. Explain how this Android app developer and business in the mobile app industry.

→ Recent bussiness trend which has the android app indestry is the Pricing and data Protection. Developer now need to the other hand, Priotize teser in their ~~to~~ app to build and maintent trust with. Failing to do so can ~~smalll~~ ~~in~~result in and legal calleerge as well as loss of user trust and loyality Addimaliy business may need to apart their monotigation strugie. Some advting method that relply having on user data may be comes less effective.

(2) What is the Purpose of an inflator of layout in Android development and how does it fit into the architecture of android layout?

→ The Purpose of an inflator in Android devlopment is to take an XML layout file and convert into componding view object that maiputed and displayed on data the user interface element defined in XML layout file of usertime

In the Android layout the inflate plays

a Part of the overall layout interface Process. when a activity or Fragment is created or when a new view need to be adder to the intiator used to be added to Pare the XML layout file and current itoo a hiery of view objects.

③ Explain the Concept of a Custom Dialog Box in Android application Pnicle example to illustrate its use.

→ A Custom Dialog Box in Android is a Pop up window that developer can design and customize to display information, option to the user. It's a versatile UI element for showing alert. input forms, confimation dialog any other customs interactor.

Ex: when you need to Provide a tailored user experience or gather specific input form the user whithout to a new screen like warring for input like gender, Name etc into. for rating etc.

④ How do activities, services and the Android Manifest file work together to make an Android app. can you desribe their main roles and Provide a basic example of how they compercate to design a mobile app?

→ Activities, Service and the Android manifest file are componets of an android app each with its own spefic role in the overall application architecture

→ Activities represent the user interface and serv. as the entry Point for user information. Each screen in your app is typically as an activity.

→ service are background Componets that long-running task or execute oPration that don't a user mtefuce. They indefiy of the activies and a used for task like. Naging, fetching data from the internet or running period background Process.

The manifest file is a configuration file that provide esstial information about your APP of the android system. It declares the APP's components, permission and other settings.

(5) How does the Android Manifest file impact the development of an Android application? Provide an example to demonstrate the significance.

-) The Android Manifest file play a role in Android APP development as it serves as a blueprint for the Android APP. It imports devlopment in serveral significant ways. Like defing, permission, Intent fitler APP metadata, APP Entry Point.

Eg: <manifast xml = android = " https://scheme android.com/apk/res/android"
Package = " com.example.app" >

<application
" android icon = " @mipmap/ic_lanch"
android = label = @string/APP = name" >

<activity
android : name = " MainActivity "
android : label = " @string/APP-name" >
<intent - fiter >
<action android: name = " android. intent. action. MIN" />
<category android = name = " android. intent. category. LUNCHER" />

```
<Intent - filter>
</activity>
<uses - permission android : name="android. permission. Intent"/>
</application>
</manifest>
```

⑥ What is the role of resource in Android development Discuss the various types of resource and their significance in getting well. stroled application. Provide example to clarify your Point.

→ Recouces are essetial componets that provide external absets and data to your app. They play a crcicy role in separating context from code, enhacing and adapting your app to different device configurter.

(i) XML layout : There define the structure and appearance of your app.

(ii) Drawable : It stage, mage, icons and graphic used in app.

(iii) String : It string text and string used in your app's UI.

(iv) Color : It degin colors used through out the app.

(v) Dimetions : It store numeric value such as maging Peading and text size.

(vi) layout: It allows you to used resses folder for different such as scam size, oviend ad laguage.

⑦ How does an Android service contribute to the functinality of a mobile application describe the Process of devbping an Android service.

→ An Android service is a compont that user in the backgroumd indepedetly of the user and performs long running operation or backgroumd funclatiolity and user experience of a mobile application by enabbing task that should contye lonning even when the app is not in the foreground.

- Android service contribute to the functionality of a mobile application.

- Background Processing
- long - Running operation
- Inter - Component Communicate
- Foreground and background service

- Developing an Android service involve the following:

① Create a service class: It is the class which extend the class or it subclasses. This class will contain the code for the task want the Performce.

② Define service in Manifest: It let the Android system know about it.

③ Start and bind to the service.
- To start a servic, you can use startservice or start forgroumd service if it's foreground services.
- To bind to a servics (for more complex interaction) use bindservice.

④ Service has a life cycle that include method like oncreate(), onstart Command () and onDesplay(). implmt thess method to manage the service behaviour during its life cycle.

⑤ In the start Command() method, perform the background Processing or long, running tasks that the service dasigned for.

⑥ use stopServe (Intend) or stop self() within the servies to stop it when the task are compted or its longer ned.

⑦ Ensure that you release any acquired resoureed or unloind from Componets when the services is stopped or destroyed to avoid memory leaks.

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