

#### U. V. Patel College of Engineering

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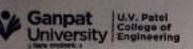
	Nome: Patel Nisurg A.	
	Class: CEIT-B	
	Botch: CSB-1)	
	En no: 21012011094	
	Sub: MAD	
	Assignment: 1	
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## A.V. Patel College of Engineering

	Assignment s
<b>6-1</b>	Based on your understanding Dontify a sount business leen of that has inffluented the undereid platform explain how this teend impacts and and all upp developes and business in the mobile app industry
$\rightarrow$	One significant trend in the android app industry and the increasing emphass on user privacy and data security.
->	impact on condesid App developess
49	Enhanced permissions and compost:  developess had to be more transparent at the date the capper called and sequest explicit uses content this mean sedesigning permission dialogs and ensuring that uses anderstood any certain date as being collected
2.	Limitations on Adestising  For apps selying on advertising sevence, changed in  ad tracking and. Developers needed to adopt to  those changes lossibly exploring monetization models
7	impacts on Businesses
3.	Compy ance costs:  Businesses operating in the android app industry needed to rollaces asoures for compliance with stricter  Ver Telecom & X

data psivacy segulations.

- -> Privary breaches on mishandling of user data could gestult in severe genutational damage. Building and maintaining trust with users become even more critical 2. Repulation management:
- Q-2 what is purpose of an Inflator of layart in Android development, and how does it fit into the aschitecture of Android Layouts?
  - -> In android app development, thisals Inflater helps turn your design plans into actual buttons text booker, and other things you see on your phones screen. Architecture
  - -> Busposes of Layout Influtor
    - \* XML Layout files : Developers design the layout . Structure of UI elements in XML Jayout resource full
    - 2. Activity / Bagment: In the vara or kollen code of us and said activity or Bagment. Developers use the Layout inflator to "inflate". This is supercully done on thin the 'oncreate' method.
  - 3 view thereasing: The result of inflating the layout XML is a hierarchy of view objects, with the road view being the lop-level layout.
  - 4. Date Binding & Event Handling Developers often bind dura to these views using data binding libraries on



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	handle uses interactions by attaching ment listoness
	5. Dendering on the screen. The andraid system is sesponsible for sendering this hillsarchy of views on the device screen according to the layout specifications defined in the xul file
Q-3	Explain the concent of custom Diedog Box in Android application Provide examples to whostkute its use
->	A custom dialog Box in Andsoid applications is a pop-up au indow that developer can design and austonize to show specific information, sereive input from uses or perform actions without navigating to a new screen as activity Gustom dialog Boxes are helpful for displaying messages, alests forms or any austom antest in controlled and visually appealing manner.
<del></del>	Puspose Cus own - dialogs use used when you want to pseson ps formations seceive uses input on postum actions within a self-confained, isolated UT element that temposasely intersupts
3)	Components: A aistorn divided typically consists of various UT elements like buttons, textvicus, images as input fields. to the specific interaction you want to facilitus.
	Layout and behavior according to their appearance

ex: creating and using a custom dialog in and soid

The show custom Dialog () {

Val custom Dialog: Dialog (this)

custom Dialog: Set content view (R. Jayout Gustom Dialog)

vul messageTextrea = customDialog. find virally ID < Text Viral (A. id. Tressage Text viral)

val okButton: Custom Diculog. Fin Sview By Id Kuttons

CR. id. OkButton)

message Textview text: This is a custom dauby!

ali Button. Sef on click Listenes &

custom Dialog. Show C) 3

custom Dialog. Show C) 3

-> use couses of custom dialog box: login - confirmation
Dialog - setting. Informational populp. Media playbuit ontak

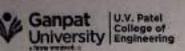
Q-n How do activities, services and the Android Monifest file work together to maire on Android applican you describe their main roles and provide a busic example of how they cooperate to design a mobile app

→ Z. Activities:

Role: Activities sepsesent individual screens on a components in an Android app. They manage the user interactions

2. Service:

Role: Savas one burgground components that perform



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	Long-sunning operations or handle tasks that
	don't require a uses interface They can sun even
13 Co 11 -	if the expes to not visible
N. Carlotte	
3.1	Android Manifest file.
	Bale: The Android Manifest word file is like the apps
	bluepaint. It declares the app's components and
	defines how they interest with the Android system
TO THE	and other components
8	And I all returned and the second an
er	in and soid manifest and You specify which activities are
	post of your app. their Launch models, permissions
	and sesvice declarations. This file acts a houghing
	A service described in the fire acts a margaring
	for undsoid system to understand your opper structure
	and behavious.
- 00	Maria Albara - Asa Comanda Astrohaca S
-> (J)	mes Main Activity : App ComputActivity () 9
	avesside from oncreute (sourd Instance state: Bundle) ] {
	Super Oncrette (Suved InstanceState)
	Settontent View (Alayout activity-main)
	Stuates wice Button Seton chichistenes &
$ \forall$	val service Intent: Intent ( this, Notification Service: class june)
	Stust Service (Service Intent)
1	34
	4
	3
90	lass Note Fecutions equire Intent Service ("Notification Service") }
	overside from on Handle Intent Cintent: Intent 925
	if (intend 1= mull)?
San	ogente Notification () 23
THE SECOND	Page No. 3

Private from Crecile Notification () of

val charmed ID = "my-charmed"

if ( Build version Sook - Int > = Build version - (o de. o) of

val name = "my charmed"

val notification Manager = get system Source (Notification

Manager: clause java)

notification Manager (seate Notification charmed (channe)

val Builder = Notification (compat builder (this, channe)

setsmall Icon (R. drawahle. ic - January - fareground)

set Content Text ("This is notification from source.")

3

Q-8 How does the Android Manifest Pule impact the development of an Android application I Provide an example to

demonstrate its Significance of

The condition manifest file is a concret component in
the development of an Android application It saves
several important purpose, and its content
Bignificantly impacts hour the android system
interacts with and manages your App
significance of the Android Manifest file:

· APP configuration

· Intend Pilters

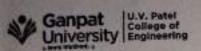
· App Liferyck

· Component Declosetion

- PERMISSIONS

explases and soid = "http://behover.emdsoid.com/

Package: "com.escample.myapp">



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announ i	andsoid: allow Backup: "true"
	undsoid = icon - " amiponupl ic - lepenches"
	com depid : label = 10 string upp-name
	and soid: gound Jam: "Om i porap lic lanners sound"
	emperid: Suppost SRII- Leve
19.11	cm dsoid: theme = "@ style / App Theme">
	< activity - condapid: name: ". Main Activity">
	<in fitters<="" local="" th=""></in>
	<uction -="" :="" adian="" and="" intent="" main="" name="and" spid=""></uction>
	2 cale a gry and deald marme = 'and 80 id intent (affectory)
	Jouncher" 1>
	<   mtent fitter>
	< adjusty condenid neone = " second Hetivity">
	Declare additional activities here
	< / continuity >
	< uses - permission android: name = android permission.
	Intent />
	Declase sequised Permissions hese
1	<1 manifests
	The state of the s
Q-6	What is the sole of se seconsces in Android development
	Dente the majors types of sesouses and their significant
	in carating well - standard applications. Assist examples
112	to dusify your points
$\rightarrow$	Resources play a fundamental role in Android development
3-1-4	by providing a staurfused every to manage assets, values.
	January & and other elements used in your copp. They helps
	croste flexible, maintainable and dovice independent
	Page No.   L <sub>4</sub>

application. The various types of resources and there significance with ex: 2. Layout Resources:

- type: XML Piles in the '88 Layout' disectory.
- Significance: Define the structure and appearance of the appearance interface
- Ex: 'activity-main.xml' defines the layout of your moin activity, specifying us components like buttons, textures and their assangement
- CButton
   candsoid: Id = "@ + id /my Button"
   candsoid: Jayout-cuidth="ensur-content"
   candsoid: Jayout-height="usar-content"
   candsoid: Jext="click Me"/>

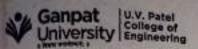
2. Drawable Resources:

- type: Images and drawable assets in the ses /

- significance: Stone graphics, irons, and images used in your app.

= Ex: 'ic-Jaruncher. png' is the cipp's Journalies icon.

3. String Resources:
- type: Strings defined in XML fields under '20/volus'.



# u.v. Patel College of Engineering A. B. Patel College of Engineering

manny	GANPAT UNIVERSITY, KHERVA-384012, DIST - MEHSANA. (N.G.)
	- significance: store text strings making it easier to provide translations and maintain consistency.
	- Ex: 'ses / vulves ) Staings xml' contains staing ses was
	< 51 sing norme: "upp norme"> my upp < btsing> <51 sing norme: "coelarme message"> wohome to my APK/string>
	4 color Resources:
	- type: coloss defined in xul files under 'ses I values'.
	- significance: stose cabs values ensuring consistency in the cupp's design.  For: "ses   values   colour xml" defines color sesousces  < color nume: "primary-color"># FFAGOO < 100/08)
	5 Style Reso vaces.
	-type: styles defined for XMI files and s'so / values!  -significance: Define servable styles for a componente  FEX: Ses / values   styles and defines style  < style name: "My Buttonstyle" > <item "condesord:="" (a)="" <="" buckground"="" decreasede="" item="" my-button="" name:=""> <item "umbesord:="" color"="" name:="" text=""> a) color   primary-  color &lt; / item&gt;</item></item>
	VX. Telescen & Xeros

6. Dimension Resources:
- type: Dimensions defined in KML files render's sol values'.
- significance: store dimension values, ensuring a consistent

anisaminal to anallog latest 14.120

Layous.
- Ex: 'ses | vulves | dimens xml' defines dimension sessions
2 dimen name = "masgin\_lasge" > 16 dp < / dimen >
2 dimen name = "publing-medium" > 8 dp < / dimen >

#### 7. Auw Resonaces:

- type: files stored in the 'ses I such disectory.
   significance: store non- XML files, such as Joan duta, andia
   Exc. Store a Joon file for app configuration.
- Q-7 How does an android service contribute to the .

  Punctionality of a mobile application Describe the

  process of developing an android service.
  - -> Contai butions of underoid services:

    1. Buckground processing: services cultous upps to perform
    twikes in the buckground cuithout blocking the user interfere
    - 2. Long-summing operations: services are ideal for handling operations that require more time to complete, such as , playing music.
    - 3. Integ-component communication: Services enclosed cond components like activities, beauticost acceives and other services to communication with eachothren efficients.

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WHEN THE PARTY NAMED IN	La Cossissand Son of A
/	4. Correground service: Android service con our in the programs.
/	The CIDI 1824 in the Contract and this is issued
-	That sequille morning west interaction, the
-	music playbuck process of developing on Androis service
	I Define the service days : creare a new join as katlandows the
	extends the sesvice down overside methods like oneseated,
	on Destroy (), onstart command () to define the behavior
	of your service.
	a configure service in monifost: Densol & your service in the
	Andraid Mornifost XMI file to inform the Andraid System
	about its existence and configuration. < service and soid:
	name="- mysesvice"/>
	3. Stust the sesvice: Decide wheather you want to stood
	service or birnt it to other components use start esvice
	De brindsesvice ().
	in Implement service logic. In service class implement the
88	specific logic your service needs to performs its tast
172-	
	5. Hoppette Lifecycle: Release sesousous when they se no longer
	5. Horadte Litecycle: Release sosowsons when theyse no longer neede & and consider voling 'Stappelf()' on Stappervice()'
1000	lite intents, besond cost as components, we appearsive mechanism
	THE MITERIA, DESCRIPTION OF COMPUTED SO FORTHER ZONINGHIST
BR.	7- Follows own & sessivices Coptional): If your possive needs to
De la constitución de la constit	7-folloggound seggivices Coptioned): If your segure needs to  and in the following, Stuff obeground ()  Page No. 6
	Page No. 6

- 8. Testing: Thosoughly test your service to ensure it functions us expected, including handling various servacious like metwork faithuses.
  - a. aptimization: optimize your savire for performance and resource efficiency to minimize buttery usage
  - handling and Logging implement paper estar handling and Logging medicinisms to address issues that may occur ahily service is summing.