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COLLEGE OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY(COCSIT), LATUR संगणकशास्त्र व माहितीतंत्रज्ञान महाविद्यालय(कॉक्सिट), लातूर.

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DEPARTMENT OF COMPUTER SCIENCE

LAB WORK-MANUAL

for

Mobile Application Development

Class/Year	B.Sc(CS) TY 2023
Subject code	BCS-606.Lab Course 1
Semester	Sixth semester
Language / package	Programming in C
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Prepared by

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Vice Principal

Principal

Mr. G.P Shinde

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List of practical for mobile application development

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03	MAD/LAB/03	Demonstrate the use of Layout such as RelativeLayout, LinearLayout.		
04	MAD/LAB/04	Create user login application with username and password and switch to next activity by using intent		
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06	MAD/LAB/06	Create an application that will display admin panel and student panel using fragment.		
07	MAD/LAB/07	Create an application that will start mobile torch on toggle button on and off.		
08	MAD/LAB/08	Create an application that will accept date and time from timepikar and datepikar dialog.		
09	MAD/LAB/09	Write an android code to show use of WebView.		
10	MAD/LAB/10	. Design android application for login activity. Write android code to check login credentials with username = "Admin" and password = "android". Display appropriate toast message to the user.		
11	MAD/LAB/11	Create an application that will display objective question layout using radio button and when option submitted show message "correct".		
12	MAD/LAB/12	Create an application to show 3 option menu of color name and after click on option menu change background of current activity		
13	MAD/LAB/13	Write an application to demonstrate Alert Dialog Box in android		
14	MAD/LAB/14	Write an application to demonstrate Custom Alert Dialog Box in android		
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16	MAD/LAB/16	Write an android application using SQLite to create table and perform CRUD operations (Example. COURSE table (ID, Name, Duration, and Description), perform ADD	
		UPDATE, DELETE and READ operations)	

General Instructions for Students:

- 1. Before entering the Lab the student should carry the following things (MANDATORY)
 - a. Identity card issued by the college.
 - b. Class notes
 - c. Lab observation book
 - d. Lab Manual
 - e. Lab Record
- 2. Student must sign in and sign out in the Lab Attendance register provided when attending the lab session without fail.
- 3. Student should come to the laboratory in time. Students, who are late more than 15 min., will not be allowed to attend the lab.
- 4. Students need to maintain 100% attendance in lab if not a strict action will be taken.
- 5. All students must follow a Dress Code while in the laboratory
- 6. All bags must be left at the indicated places
- 7. Respect the laboratory and its other users.
- 8. Workspace must be kept clean and tidy after experiment is completed.
- 9. Read the Manual carefully before coming to the laboratory and be sure about what you are supposed to do.
- 10. Do the experiments as per the instructions given in the manual.
- 11. Write each the programs in practical book after completions
- 12. Students are not supposed to use pen drives, Mobile data cables without permission of lab- in charge.
- 13. Lab records need to be submitted on or before the date of submission.

Instructions for Preparing Each Lab Manuals:

- 1. Write the Lab Experiment title/ Program title
- 2. Write the Objective/Expected output after completion of the Practical
- 3. Write the description of the experiment /concepts.
- 4. Write the steps to open the editor/ software needed for experiments
 - a. Write the steps needed for doing experiment/program
 - b. Write the concepts and explanation required for the experiment/methods
- 5. Write the experiment/Program output.

MAD/LAB/01 -Installing android studio

Step1 – before installing android studio you must have to check system configuration.

The following are the system requirements for Android Studio on Windows.

64-bit Microsoft® Windows® 8/10/11

X86_64 CPU architecture; 2nd generation Intel Core or newer, or AMD CPU with support for a <u>Windows Hypervisor</u>

8 GB of available disk space minimum (IDE + Android SDK + Android Emulator)

Step2 - Open any web browser and navigate to the https://developer.android.com/

Click **Download Android Studio**. The **Terms and Conditions** page with the Android Studio **License Agreement** opens.

Read the License Agreement.

At the bottom of the page, if you agree with the terms and conditions, select the **I have** read and agree with the above terms and conditions checkbox.

Click **Download Android Studio** to start the download.

Step3- Open the folder where you downloaded and saved the Android Studio installation file.

Double-click the downloaded file.

If you see a **User Account Control** dialog about allowing the installation to make changes to your computer, click **Yes** to confirm the installation.





Step4 - The Welcome to Android Studio Setup dialog displays.

Click Next to start the installation.

Step 5 - Select the components that you want to install

🚈 Android Studio Setup		_		×
	hoose Components Choose which features of Android S	Studio you want	t to install.	
Check the components you wa install. Click Next to continue.	int to install and uncheck the comp	onents you don	't want to	
Select components to install:	Android Studio	Description Position your over a compo see its descri	mouse onent to iption,	
Space required: 2.3GB				
	< Back	Next >	Cano	el

and click on the "Next" button.

👅 Android Studio Setup		_		×
\mathbf{R}	Configuration Settings Install Locations			
Android Studio Installat The location specified Click Browse to custo F:\Android Studio	ion Location I must have at least 500MB of free space. mize:	Br	owse	
	< Back Ne	xt >	Cano	el

Step 6 - Now, browse the location where you want to install the Android Studio

and click "Next" to proceed.

Step 7 - Choose a start menu folder for the "Android Studio" shortcut

🚈 Android Studio Setup)		_	
A	Choose Start M Choose a Start N	l enu Folder 1enu folder for the <i>1</i>	Android Studio :	shortcuts.
Select the Start Menu fi can also enter a name t Android Studio Accessibility Accessories ActiveTd 8.6.7 Build 0 Administrative Tools ArcSoft Connect ArcSoft WebCam Comp Canon LBP2900 Canon Printer Uninstall Free FLV Player IIS	older in which you woul o create a new folder. (64-bit) panion 3 er	d like to create the	program's shor	tcuts. You
Do not create short	tuts			*
		< Back	Install	Cancel

and click the "Install" button to proceed.

Step 8 - After the successful completion of the installation,

2	Installation C Setup was co	Complete mpleted successfully.		
Completed				
	an ing 1008/			
Extract: resources	_en.jar 100%			^
Output folder: F:\A	ndroid Studio			
Output folder: F: W	Indroid Studio			
Output folder: C:\P	ProgramData Microsoft	\Windows\Start Menu\	Programs\Andro	id St
Create shortcut: C	· \ProgramData \Microso	oft\Windows\Start Men	u\Programs\And	lroid
Output folder: C:\L	Jsers\DELL			
Create folder: C:\U	lsers\DELL\.android\st	udio		
	lsers\DELL \.android \st	udio \installer		
Create folder: C:\U				~
Create folder: C:\U Completed				
Create folder: C:\U Completed				

click on the "Next" button.

Step 9 - Click Finish when the installation is done to launch Android Studio.



BY G.P SHINDE

Now, your Android studio welcome screen will appear on the screen.



Step 10 - "Android Studio Setup Wizard" will appear on the screen with the welcome wizard.



Click on the "Next" button.

Step 11 - Select (check) the "Standard" option if you are a beginner and do not have any idea about Android Studio. It will install the most common settings and options for you.



Click "Next" to proceed.

Step12- Choose your preference of light or dark theme when Android Studio first launches. Screenshots in this course use the light theme, but choose whichever one you prefer.

Android Studio Setup Wizard	- 🗆 X
Select UI Theme	
O Darcula	• Light
🖥 module 🤇 🖿 src 🔪 😴 HelloWorld	🖥 module 👌 🖿 src 🤇 💣 HelloWorld
\bigcirc HelloWorld.java \times	C HelloWorld.java ×
<pre>import javax.swing.*; import javax.awt.*; public class HelloWorld { public HelloWorld() { JFrame frame = new JLabel(); label.setFont(new Font("Serif", Font label.ender frame frame</pre>	<pre>import javax.swing.*; import javax.awt.*; public class HelloWorld { public HelloWorld() { JFrame frame = new JFrame ("Hello w JLabel label = new JLabel(); label.setFont(new Font("Serif", Font label frame frame</pre>
	Previous Next Cancel Finish

Step 13

Now, click on the "Finish" button to download all the SDK components.

Step6 - see a **User Account Control** dialog for **Windows Command Processor**. Click **Yes** to accept the dialog.

User Account Control Do you want to allow this app to make changes to your device?	×
Windows Command Processor Verified publisher: Microsoft Windows	
Show more details	

Step6 - You may also receive a **Windows Security Alert** about adb.exe. Click **Allow Access**, if needed, to continue the installation.

Windows	Security Ale	ert	\times			
Windo app	ws Defende	er Firewall has blocked some features of this				
Windows Defender networks.	Firewall has blo	ked some features of adb.exe on all public and private				
	Name:	adb.exe				
	Publisher:	Unknown				
	Path:	C:\users\16503\appdata\ocal\android\sdk\platform-tools \adb.exe				
Allow adb.exe to co	ommunicate on t	hese networks:				
Private netw	orks, such as m	y home or work network				
Public netwo because the	Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)					
What are the risks	What are the risks of allowing an app through a firewall?					
		Allow access Cancel				

Step7 - When the download and installation completes, click Finish.

The Welcome to Android Studio window displays and you're ready to start creating apps!

🛎 Welcome to Android Studio			-	×
Android Studio Arctic Fox 2020.3.1 Patch 4				
Projects				
Customize	Welcome to	Android Studi	0	
Plugins Learn Android Studio	Create a new proje Open existing project fi	ect to start from scratch. rom disk or version control.		
	+	= Y		
	New Project	Open Get from VCS		
	More	Actions ~		
\$				
	FINIS	H		