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1. prg 1
2. activity_main.xml
3. <?xml version="1.0" encoding="utf-8"?>
4. <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
5. xmlns:app="http://schemas.android.com/apk/res-auto"
6. xmlns:tools="http://schemas.android.com/tools"
7. android:layout_width="match_parent"
8. android:layout_height="match_parent"
9. android:orientation="vertical"
10. tools:context=".MainActivity">
11. <RelativeLayout
12. android:layout_width="match_parent"
13. android:layout_height="59dp">
14. <TextView
15. android:id="@+id/textView"
16. android:layout_width="79dp"
17. android:layout_height="42dp"
18. android:layout_alignParentStart="true"
19. android:layout_alignParentBottom="true"
20. android:layout_marginStart="113dp"
21. android:layout_marginLeft="20dp"
22. android:layout_marginBottom="12dp"
23. android:gravity="center"
24. android:text="RNS IT"
25. android:textColor="#E61717"
26. android:textSize="20sp" />
27. <ImageView
28. android:id="@+id/imageView4"
29. android:layout_width="48dp"
30. android:layout_height="match_parent"
31. android:layout_alignParentBottom="true"
32. android:layout_marginLeft="88dp"
33. android:layout_marginBottom="1dp"
34. android:layout_toRightOf="@id/textView"
35. app:srcCompat="@drawable/rnsit" />
36. </RelativeLayout>
37. <View android:layout_width="match_parent"
38. android:layout_height="2dp" android:background="#000000" />
39. <TextView android:layout_width="match_parent"
40. android:layout_height="wrap_content"
41. android:text="Shwetha G N"
42. android:textSize="16dp"
43. android:layout_marginBottom="10dp"
44. android:layout_marginTop="10dp"
45. android:textColor="#000000"
46. android:gravity="center" />
47. <TextView android:layout_width="match_parent"
48. android:layout_height="wrap_content"
49. android:text="Asst prof"
50. android:textSize="16dp"
51. android:layout_marginBottom="10dp"
52. android:layout_marginTop="10dp"
53. android:textColor="#000000"
54. android:gravity="center" />
55. <View
56. android:layout_width="match_parent"
57. android:layout_height="2dp"
58. android:background="#000000" />
59. <TextView android:layout_width="match_parent"
60. android:layout_height="wrap_content"
61. android:text="+91-9108245345"
62. android:textSize="16dp"
63. android:layout_marginBottom="10dp"
64. android:layout_marginTop="10dp"
65. android:textColor="#000000"
66. android:gravity="center" />
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67. <TextView android:layout_width="match_parent"
68. android:layout_height="wrap_content"
69. android:text="Bangalore"
70. android:textSize="16dp"
71. android:layout_marginBottom="10dp"
72. android:layout_marginTop="10dp"
73. android:textColor="#000000" android:gravity="center" />
74. <TextView android:layout_width="match_parent"
75. android:layout_height="wrap_content" android:text="Email:rnsit.ac.in"
76. android:textSize="16dp"
77. android:layout_marginBottom="10dp"
78. android:layout_marginTop="10dp"
79. android:textColor="#000000"
80. android:gravity="center" />
81. </LinearLayout>
82.
83.
84. prg 2
85.
86. activity_main.xml
87. <?xml version="1.0" encoding="utf-8"?>
88. <androidx.constraintlayout.widget.ConstraintLayout
89. xmlns:android="http://schemas.android.com/apk/res/android"
90. xmlns:app="http://schemas.android.com/apk/res-auto"
91. xmlns:tools="http://schemas.android.com/tools"
92. android:layout_width="match_parent"
93. android:layout_height="match_parent"
94. tools:context=".MainActivity">
95. <Button
96. android:id="@+id/button_nine"
97. android:layout_width="62dp"
98. android:layout_height="48dp"
99. android:text="9"
100. app:layout_constraintBottom_toBottomOf="parent"
101. app:layout_constraintEnd_toEndOf="parent"
102. app:layout_constraintHorizontal_bias="0.123"
103. app:layout_constraintStart_toStartOf="parent"
104. app:layout_constraintTop_toTopOf="parent"
105. app:layout_constraintVertical_bias="0.467" />
106. <Button
107. android:id="@+id/button_zero"
108. android:layout_width="63dp"
109. android:layout_height="46dp"
110. android:text="0"
111. app:layout_constraintBottom_toBottomOf="parent"
112. app:layout_constraintEnd_toEndOf="parent"
113. app:layout_constraintHorizontal_bias="0.39"
114. app:layout_constraintStart_toStartOf="parent"
115. app:layout_constraintTop_toTopOf="parent"
116. app:layout_constraintVertical_bias="0.465"
117. tools:ignore="TouchTargetSizeCheck" />
118. <Button
119. android:id="@+id/button_sub"
120. android:layout_width="69dp"
121. android:layout_height="49dp"
122. android:text="-"
123. app:layout_constraintBottom_toBottomOf="parent"
124. app:layout_constraintEnd_toEndOf="parent"
125. app:layout_constraintHorizontal_bias="0.953"
126. app:layout_constraintStart_toStartOf="parent"
127. app:layout_constraintTop_toTopOf="parent"
128. app:layout_constraintVertical_bias="0.463" />
129. <Button
130. android:id="@+id/button_add"
131. android:layout_width="65dp"
132. android:layout_height="44dp"

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133. android:text="+"
134. app:layout_constraintBottom_toBottomOf="parent"
135. app:layout_constraintEnd_toEndOf="parent"
136. app:layout_constraintHorizontal_bias="0.656"
137. app:layout_constraintStart_toStartOf="parent"
138. app:layout_constraintTop_toTopOf="parent"
139. app:layout_constraintVertical_bias="0.467"
140. tools:ignore="TouchTargetSizeCheck" />
141. <Button
142. android:id="@+id/button_equal"
143. android:layout_width="62dp"
144. android:layout_height="48dp"
145. android:text=""
146. app:layout_constraintBottom_toBottomOf="parent"
147. app:layout_constraintEnd_toEndOf="parent"
148. app:layout_constraintHorizontal_bias="0.163"
149. app:layout_constraintStart_toStartOf="parent"
150. app:layout_constraintTop_toTopOf="parent"
151. app:layout_constraintVertical_bias="0.689" />
152. <Button
153. android:id="@+id/button_mul"
154. android:layout_width="62dp"
155. android:layout_height="48dp"
156. android:text="*"
157. app:layout_constraintBottom_toBottomOf="parent"
158. app:layout_constraintEnd_toEndOf="parent"
159. app:layout_constraintHorizontal_bias="0.123"
160. app:layout_constraintStart_toStartOf="parent"
161. app:layout_constraintTop_toTopOf="parent"
162. app:layout_constraintVertical_bias="0.568" />
163. <Button
164. android:id="@+id/button_div"
165. android:layout_width="63dp"
166. android:layout_height="46dp"
167. android:text="/"
168. app:layout_constraintBottom_toBottomOf="parent"
169. app:layout_constraintEnd_toEndOf="parent"
170. app:layout_constraintHorizontal_bias="0.39"
171. app:layout_constraintStart_toStartOf="parent"
172. app:layout_constraintTop_toTopOf="parent"
173. app:layout_constraintVertical_bias="0.566"
174. tools:ignore="TouchTargetSizeCheck" />
175. <Button
176. android:id="@+id/button_clear"
177. android:layout_width="69dp"
178. android:layout_height="49dp"
179. android:text="C"
180. app:layout_constraintBottom_toBottomOf="parent"
181. app:layout_constraintEnd_toEndOf="parent"
182. app:layout_constraintHorizontal_bias="0.953"
183. app:layout_constraintStart_toStartOf="parent"
184. app:layout_constraintTop_toTopOf="parent"
185. app:layout_constraintVertical_bias="0.564" />
186. <Button
187. android:id="@+id/button_dot"
188. android:layout_width="65dp"
189. android:layout_height="44dp"
190. android:text="."
191. app:layout_constraintBottom_toBottomOf="parent"
192. app:layout_constraintEnd_toEndOf="parent"
193. app:layout_constraintHorizontal_bias="0.656"
194. app:layout_constraintStart_toStartOf="parent"
195. app:layout_constraintTop_toTopOf="parent"
196. app:layout_constraintVertical_bias="0.567"
197. tools:ignore="TouchTargetSizeCheck" />
198. <Button
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199. android:id="@+id/button_five"
200. android:layout_width="62dp"
201. android:layout_height="48dp"
202. android:text="5"
203. app:layout_constraintBottom_toBottomOf="parent"
204. app:layout_constraintEnd_toEndOf="parent"
205. app:layout_constraintHorizontal_bias="0.123"
206. app:layout_constraintStart_toStartOf="parent"
207. app:layout_constraintTop_toTopOf="parent"
208. app:layout_constraintVertical_bias="0.377" />
209. <Button
210. android:id="@+id/button_six"
211. android:layout_width="63dp"
212. android:layout_height="46dp"
213. android:text="6"
214. app:layout_constraintBottom_toBottomOf="parent"
215. app:layout_constraintEnd_toEndOf="parent"
216. app:layout_constraintHorizontal_bias="0.39"
217. app:layout_constraintStart_toStartOf="parent"
218. app:layout_constraintTop_toTopOf="parent"
219. app:layout_constraintVertical_bias="0.376"
220. tools:ignore="TouchTargetSizeCheck" />
221. <Button
222. android:id="@+id/button_eight"
223. android:layout_width="69dp"
224. android:layout_height="49dp"
225. android:text="8"
226. app:layout_constraintBottom_toBottomOf="parent"
227. app:layout_constraintEnd_toEndOf="parent"
228. app:layout_constraintHorizontal_bias="0.953"
229. app:layout_constraintStart_toStartOf="parent"
230. app:layout_constraintTop_toTopOf="parent"
231. app:layout_constraintVertical_bias="0.373" />
232. <Button
233. android:id="@+id/button_seven"
234. android:layout_width="65dp"
235. android:layout_height="44dp"
236. android:text="7"
237. app:layout_constraintBottom_toBottomOf="parent"
238. app:layout_constraintEnd_toEndOf="parent"
239. app:layout_constraintHorizontal_bias="0.656"
240. app:layout_constraintStart_toStartOf="parent"
241. app:layout_constraintTop_toTopOf="parent"
242. app:layout_constraintVertical_bias="0.378"
243. tools:ignore="TouchTargetSizeCheck" />
244. <Button
245. android:id="@+id/button_one"
246. android:layout_width="62dp"
247. android:layout_height="48dp"
248. android:text="1"
249. app:layout_constraintBottom_toBottomOf="parent"
250. app:layout_constraintEnd_toEndOf="parent"
251. app:layout_constraintHorizontal_bias="0.123"
252. app:layout_constraintStart_toStartOf="parent"
253. app:layout_constraintTop_toTopOf="parent"
254. app:layout_constraintVertical_bias="0.281" />
255. <Button
256. android:id="@+id/button_two"
257. android:layout_width="63dp"
258. android:layout_height="46dp"
259. android:text="2"
260. app:layout_constraintBottom_toBottomOf="parent"
261. app:layout_constraintEnd_toEndOf="parent"
262. app:layout_constraintHorizontal_bias="0.39"
263. app:layout_constraintStart_toStartOf="parent"
264. app:layout_constraintTop_toTopOf="parent"
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265. app:layout_constraintVertical_bias="0.28"
266. tools:ignore="TouchTargetSizeCheck" />
267. <Button
268. android:id="@+id/button_three"
269. android:layout_width="65dp"
270. android:layout_height="44dp"
271. android:text="3"
272. app:layout_constraintBottom_toBottomOf="parent"
273. app:layout_constraintEnd_toEndOf="parent"
274. app:layout_constraintHorizontal_bias="0.656"
275. app:layout_constraintStart_toStartOf="parent"
276. app:layout_constraintTop_toTopOf="parent"
277. app:layout_constraintVertical_bias="0.282"
278. tools:ignore="TouchTargetSizeCheck" />
279. <TextView
280. android:id="@+id/textView"
281. android:layout_width="310dp"
282. android:layout_height="46dp"
283. android:text="Simple Calculator"
284. android:textColor="#C2185B"
285. android:textSize="25dp"
286. android:textStyle="bold"
287. app:layout_constraintBottom_toBottomOf="parent"
288. app:layout_constraintHorizontal_bias="0.422"
289. app:layout_constraintLeft_toLeftOf="parent"
290. app:layout_constraintRight_toRightOf="parent"
291. app:layout_constraintTop_toTopOf="parent"
292. app:layout_constraintVertical_bias="0.058" />
293. <TextView
294. android:id="@+id/textView2"
295. android:layout_width="wrap_content"
296. android:layout_height="wrap_content"
297. android:text="Result"
298. android:textColor="#00796B"
299. android:textSize="20dp"
300. android:textStyle="bold"
301. app:layout_constraintBottom_toBottomOf="parent"
302. app:layout_constraintEnd_toEndOf="parent"
303. app:layout_constraintHorizontal_bias="0.07"
304. app:layout_constraintStart_toStartOf="parent"
305. app:layout_constraintTop_toTopOf="parent"
306. app:layout_constraintVertical_bias="0.176" />
307. <EditText
308. android:id="@+id/txt_result"
309. android:layout_width="249dp"
310. android:layout_height="40dp"
311. android:layout_marginTop="20dp"
312. android:ems="10"
313. android:inputType="textPersonName"
314. android:text=""
315. app:layout_constraintBottom_toBottomOf="parent"
316. app:layout_constraintEnd_toEndOf="parent"
317. app:layout_constraintHorizontal_bias="0.839"
318. app:layout_constraintStart_toStartOf="parent"
319. app:layout_constraintTop_toTopOf="parent"
320. app:layout_constraintVertical_bias="0.135"
321. tools:ignore="SpeakableTextPresentCheck,TouchTargetSizeCheck" />
322. <Button
323. android:id="@+id/button_four"
324. android:layout_width="69dp"
325. android:layout_height="49dp"
326. android:text="4"
327. app:layout_constraintBottom_toBottomOf="parent"
328. app:layout_constraintEnd_toEndOf="parent"
329. app:layout_constraintHorizontal_bias="0.952"
330. app:layout_constraintStart_toStartOf="parent"
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331. app:layout_constraintTop_toTopOf="parent"
332. app:layout_constraintVertical_bias="0.277" />
333. </androidx.constraintlayout.widget.ConstraintLayout>
334. MainActivity.java
335. package com.example.program2;
336. import androidx.appcompat.app.AppCompatActivity;
337. import android.os.Bundle;
338. import android.view.View;
339. import android.widget.Button;
340. import android.widget.EditText;
341. import android.widget.Toast;
342. import java.util.regex.Pattern;
343. public class MainActivity extends AppCompatActivity implements
344. View.OnClickListener {
345.     Button btnOne, btnTwo, btnThree, btnFour, btnFive, btnSix;
346.     Button btnSeven, btnEight, btnNine, btnZero;
347.     Button btnAdd, btnSub, btnMul, btnDiv;
348.     Button btnClear, btnEqual, btnDot;
349.     EditText txtResult;
350.     @Override
351.     protected void onCreate(Bundle savedInstanceState) {
352.         super.onCreate(savedInstanceState);
353.         setContentView(R.layout.activity_main);
354.         btnOne = (Button) findViewById(R.id.button_one);
355.         btnOne.setOnClickListener(this);
356.         btnTwo = (Button) findViewById(R.id.button_two);
357.         btnTwo.setOnClickListener(this);
358.         btnThree = (Button) findViewById(R.id.button_three);
359.         btnThree.setOnClickListener(this);
360.         btnFour = (Button) findViewById(R.id.button_four);
361.         btnFour.setOnClickListener(this);
362.         btnFive = (Button) findViewById(R.id.button_five);
363.         btnFive.setOnClickListener(this);
364.         btnSix = (Button) findViewById(R.id.button_six);
365.         btnSix.setOnClickListener(this);
366.         btnSeven = (Button) findViewById(R.id.button_seven);
367.         btnSeven.setOnClickListener(this);
368.         btnEight = (Button) findViewById(R.id.button_eight);
369.         btnEight.setOnClickListener(this);
370.         btnNine = (Button) findViewById(R.id.button_nine);
371.         btnNine.setOnClickListener(this);
372.         btnZero = (Button) findViewById(R.id.button_zero);
373.         btnZero.setOnClickListener(this);
374.         btnAdd = (Button) findViewById(R.id.button_add);
375.         btnAdd.setOnClickListener(this);
376.         btnSub = (Button) findViewById(R.id.button_sub);
377.         btnSub.setOnClickListener(this);
378.         btnMul = (Button) findViewById(R.id.button_mul);
379.         btnMul.setOnClickListener(this);
380.         btnDiv = (Button) findViewById(R.id.button_div);
381.         btnDiv.setOnClickListener(this);
382.         btnClear = (Button) findViewById(R.id.button_clear);
383.         btnClear.setOnClickListener(this);
384.         btnEqual = (Button) findViewById(R.id.button_equal);
385.         btnEqual.setOnClickListener(this);
386.         btnDot = (Button) findViewById(R.id.button_dot);
387.         btnDot.setOnClickListener(this);
388.         txtResult = (EditText) findViewById(R.id.txt_result);
389.         txtResult.setText("");
390.     }
391.     @Override
392.     public void onClick(View v)
393.     {
394.         if (v.equals(btnOne))
395.             txtResult.append("1");
396.         if (v.equals(btnTwo))

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397. txtResult.append("2");
398. if (v.equals(btnThree))
399. txtResult.append("3");
400. if (v.equals(btnFour))
401. txtResult.append("4");
402. if (v.equals(btnFive))
403. txtResult.append("5");
404. if (v.equals(btnSix))
405. txtResult.append("6");
406. if (v.equals(btnSeven))
407. txtResult.append("7");
408. if (v.equals(btnEight))
409. txtResult.append("8");
410. if (v.equals(btnNine))
411. txtResult.append("9");
412. if (v.equals(btnZero))
413. txtResult.append("0");
414. if (v.equals(btnDot))
415. txtResult.append(".");
416. if (v.equals(btnClear))
417. txtResult.setText("");
418. if (v.equals(btnAdd))
419. txtResult.append("+");
420. if (v.equals(btnSub))
421. txtResult.append("-");
422. if (v.equals(btnMul))
423. txtResult.append("*");
424. if (v.equals(btnDiv))
425. txtResult.append("/");
426. if (v.equals(btnEqual))
427. {
428. try {
429. String data = txtResult.getText().toString();
430. if (data.contains("/")) {
431. String[] operands = data.split("/");
432. if (operands.length == 2) {
433. double operand1 = Double.parseDouble(operands[0]);
434. double operand2 = Double.parseDouble(operands[1]);
435. double result = operand1 / operand2;
436. txtResult.setText(String.valueOf(result));
437. } else {
438. Toast.makeText(getBaseContext(), "Invalid Input",
439. Toast.LENGTH_LONG).show();
440. }
441. } else if (data.contains("*")) {
442. String[] operands = data.split(Pattern.quote("*"));
443. if (operands.length == 2) {
444. double operand1 = Double.parseDouble(operands[0]);
445. double operand2 = Double.parseDouble(operands[1]);
446. double result = operand1 * operand2;
447. txtResult.setText(String.valueOf(result));
448. } else {
449. Toast.makeText(getBaseContext(), "Invalid Input",
450. Toast.LENGTH_LONG).show();
451. }
452. } else if (data.contains("+"))
453. {
454. String[] operands = data.split(Pattern.quote("+"));
455. if (operands.length == 2) {
456. double operand1 = Double.parseDouble(operands[0]);
457. double operand2 = Double.parseDouble(operands[1]);
458. double result = operand1 + operand2;
459. txtResult.setText(String.valueOf(result));
460. }
461. else {
462. Toast.makeText(getBaseContext(), "Invalid Input",
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463. Toast.LENGTH_LONG).show();
464. }
465. }
466. else if (data.contains("-"))
467. {
468. String[] operands = data.split("-");
469. if (operands.length == 2) {
470. double operand1 = Double.parseDouble(operands[0]);
471. double operand2 = Double.parseDouble(operands[1]);
472. double result = operand1 - operand2;
473. txtResult.setText(String.valueOf(result));
474. }
475. else
476. {
477. Toast.makeText(getBaseContext(), "Invalid Input",
478. Toast.LENGTH_LONG).show();
479. }
480. }
481. }
482. catch (Exception e)
483. {
484. Toast.makeText(getBaseContext(), "Invalid Input",
485. Toast.LENGTH_LONG).show();
486. }
487. }
488. }
489. }
490.
491.
492. prg 3
493. XML-CODE main
494. <?xml version="1.0" encoding="utf-8"?>
495. <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
496. xmlns:app="http://schemas.android.com/apk/res-auto"
497. xmlns:tools="http://schemas.android.com/tools"
498. android:layout_width="match_parent"
499. android:layout_height="match_parent"
500. tools:context=".MainActivity">
501. <TextView
502. android:layout_width="129dp"
503. android:layout_height="45dp"
504. android:layout_alignParentEnd="true"
505. android:layout_alignParentRight="true"
506. android:layout_alignParentBottom="true"
507. android:layout_marginEnd="168dp"
508. android:layout_marginRight="168dp"
509. android:layout_marginBottom="596dp"
510. android:text="Sign Up"
511. android:textSize="24sp"
512. android:textStyle="bold" app:layout_constraintBottom_toBottomOf="parent"
513. app:layout_constraintLeft_toLeftOf="parent"
514. app:layout_constraintRight_toRightOf="parent"
515. app:layout_constraintTop_toTopOf="parent" />
516. <EditText
517. android:id="@+id/SignUp_email"
518. android:layout_width="wrap_content"
519. android:layout_height="wrap_content"
520. android:layout_alignParentEnd="true"
521. android:layout_alignParentRight="true"
522. android:layout_alignParentBottom="true"
523. android:layout_marginEnd="114dp"
524. android:layout_marginRight="114dp"
525. android:layout_marginBottom="464dp"
526. android:ems="10"
527. android:hint="EmailId"
528. android:inputType="textPersonName" />

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529. <Button
530. android:id="@+id/signupBtn"
531. android:layout_width="wrap_content"
532. android:layout_height="wrap_content"
533. android:layout_alignParentEnd="true"
534. android:layout_alignParentRight="true"
535. android:layout_alignParentBottom="true"
536. android:layout_marginEnd="168dp"
537. android:layout_marginRight="168dp"
538. android:layout_marginBottom="245dp"
539. android:text="Sign Up" />
540. <EditText
541. android:id="@+id/SignUp_Password"
542. android:layout_width="wrap_content"
543. android:layout_height="wrap_content"
544. android:layout_alignParentEnd="true"
545. android:layout_alignParentRight="true"
546. android:layout_alignParentBottom="true"
547. android:layout_marginEnd="101dp"
548. android:layout_marginRight="101dp"
549. android:layout_marginBottom="385dp"
550. android:ems="10"
551. android:hint="Password"
552. android:inputType="textPassword" />
553. </RelativeLayout>
554.
555. JAVA-CODE main
556. package com.example.signupapplication;
557. import androidx.appcompat.app.AppCompatActivity;
558. import android.content.Intent;
559. import android.os.Bundle;
560. import android.view.View;
561. import android.widget.Button;
562. import android.widget.EditText;
563. import android.widget.Toast;
564. import java.util.regex.Pattern;
565. public class MainActivity extends AppCompatActivity {
566.     EditText email_Sign, password_Sign;
567.     Button signUp_btn;
568.     @Override
569.     protected void onCreate(Bundle savedInstanceState) {
570.         super.onCreate(savedInstanceState);
571.         setContentView(R.layout.activity_main);
572.         email_Sign=(EditText)findViewById(R.id.SignUp_email);
573.         password_Sign=(EditText)findViewById(R.id.SignUp_Password);
574.         signUp_btn =(Button)findViewById(R.id.signupBtn);
575.         signUp_btn.setOnClickListener(new View.OnClickListener() {
576.             @Override
577.             public void onClick(View v) {
578.                 String email = email_Sign.getText().toString();
579.                 String password = password_Sign.getText().toString();
580.                 if(!isValidPassword(password)) {
581.                     Toast.makeText(MainActivity.this,"Password doesn't match
582.                     rules",Toast.LENGTH_SHORT).show();
583.                     return;
584.                 }
585.                 Intent intent = new Intent(MainActivity.this,loginActivity.class);
586.                 intent.putExtra("email",email);
587.                 intent.putExtra("password",password);
588.                 startActivity(intent);
589.             }
590.         });
591.     }
592.     Pattern lowerCase= Pattern.compile("^.*[a-z].*$");
593.     Pattern upperCase=Pattern.compile("^.*[A-Z].*$");
594.     Pattern number = Pattern.compile("^.*[0-9].*$");

```

```

595. Pattern special_Chara = Pattern.compile("^.*[a-zA-Z0-9].*$");
596. private Boolean isValidPassword(String password){
597. if(password.length()<8) {
598. return false;
599. }
600. if(!lowerCase.matcher(password).matches()) {
601. return false;
602. }
603. if(!upperCase.matcher(password).matches()) {
604. return false;
605. }
606. if(!number.matcher(password).matches()) {
607. return false;
608. }
609. if(!special_Chara.matcher(password).matches()) {
610. return false;
611. }
612. return true;
613. }
614. }
615. XML-CODE login
616. <?xml version="1.0" encoding="utf-8"?>
617. <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
618. xmlns:app="http://schemas.android.com/apk/res-auto"
619. xmlns:tools="http://schemas.android.com/tools"
620. android:layout_width="match_parent"
621. android:layout_height="match_parent"
622. tools:context=".loginActivity">
623. <TextView
624. android:id="@+id/loginTextView"
625. android:layout_width="225dp"
626. android:layout_height="45dp"
627. android:layout_alignParentEnd="true"
628. android:layout_alignParentRight="true"
629. android:layout_alignParentBottom="true"
630. android:layout_marginEnd="113dp"
631. android:layout_marginRight="113dp"
632. android:layout_marginBottom="544dp"
633. android:text="Login"
634. android:textSize="30sp"
635. android:textStyle="bold"
636. app:layout_constraintBottom_toBottomOf="parent"
637. tools:layout_editor_absoluteX="143dp" />
638. <EditText
639. android:id="@+id/passEditText"
640. android:layout_width="wrap_content"
641. android:layout_height="wrap_content"
642. android:layout_alignParentEnd="true"
643. android:layout_alignParentRight="true"
644. android:layout_alignParentBottom="true"
645. android:layout_marginEnd="124dp"
646. android:layout_marginRight="124dp"
647. android:layout_marginBottom="380dp"
648. android:ems="10"
649. android:hint="password"
650. android:inputType="textPassword" />
651. <Button
652. android:id="@+id/loginBtn"
653. android:layout_width="wrap_content"
654. android:layout_height="wrap_content"
655. android:layout_alignParentEnd="true"
656. android:layout_alignParentRight="true"
657.
658. android:layout_alignParentBottom="true"
659. android:layout_marginEnd="218dp"
660. android:layout_marginRight="218dp"

```

```

661. android:layout_marginBottom="263dp"
662. android:text="Login" />
663. <EditText
664. android:id="@+id/EmailEditText"
665. android:layout_width="wrap_content"
666. android:layout_height="wrap_content"
667. android:layout_alignParentEnd="true"
668. android:layout_alignParentRight="true"
669. android:layout_alignParentBottom="true"
670. android:layout_marginEnd="127dp"
671. android:layout_marginRight="127dp"
672. android:layout_marginBottom="455dp"
673. android:ems="10"
674. android:hint="Email ID"
675. android:inputType="textPersonName" />
676. </RelativeLayout>
677. JAVA-CODE login
678. package com.example.signupapplication;
679. import androidx.appcompat.app.AppCompatActivity;
680. import android.content.Intent;
681. import android.os.Bundle;
682. import android.view.View;
683. import android.widget.Button;
684. import android.widget.EditText;
685. import android.widget.Toast;
686. public class LoginActivity extends AppCompatActivity {
687. EditText emailEditText,passwordEditText;
688. Button login_btn;
689. int counter=2;
690. @Override
691. protected void onCreate(Bundle savedInstanceState) {
692. super.onCreate(savedInstanceState);
693. setContentView(R.layout.activity_login2);
694. emailEditText=(EditText)findViewById(R.id.EmailEditText);
695. passwordEditText=(EditText)findViewById(R.id.passEditText);
696. login_btn=(Button)findViewById(R.id.loginBtn);
697. String registeredEmail = getIntent().getStringExtra("email");
698. String registeredPassword= getIntent().getStringExtra("password");
699. login_btn.setOnClickListener(new View.OnClickListener() {
700. @Override
701. public void onClick(View v) {
702. String email = emailEditText.getText().toString();
703. String password = passwordEditText.getText().toString();
704. if(registeredEmail.equals(email) && registeredPassword.equals(password))
705. {
706. Intent intent= new Intent(LoginActivity.this,loginSuccessActivity.class);
707. startActivity(intent);
708. }
709. else {
710. Toast.makeText(LoginActivity.this,"Invalid
711. Credentials",Toast.LENGTH_SHORT).show();
712. }
713. counter--;
714. if(counter==0){
715. Toast.makeText(getApplicationContext(),"failed to login
716. attempts",Toast.LENGTH_SHORT).show();
717. login_btn.setEnabled(false);
718. }
719. }
720. });
721. }
722. }
723. XML-CODE login successful
724. <?xml version="1.0" encoding="utf-8"?>
725. <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
726. xmlns:app="http://schemas.android.com/apk/res-auto"

```

```

727. xmlns:tools="http://schemas.android.com/tools"
728. android:layout_width="match_parent"
729. android:layout_height="match_parent"
730. tools:context=".loginsuccessActivity">
731. <TextView
732. android:id="@+id/textView"
733. android:layout_width="match_parent"
734. android:layout_height="121dp"
735. android:layout_alignParentEnd="true"
736. android:layout_alignParentRight="true"
737. android:layout_alignParentBottom="true"
738. android:layout_marginEnd="-11dp"
739. android:layout_marginRight="-11dp"
740.
741. android:layout_marginBottom
742. ="322dp" android:text="Login
743. Successful"
744. android:textSize="36sp"
745. android:textStyle="bold" />
746. </RelativeLayout>
747. JAVA-CODE
748. package com.example.signupapplication;
749. import
750. androidx.appcompat.app.AppCompatActivity
751. ;import android.os.Bundle;
752. public class loginsuccessActivity extends
753. AppCompatActivity {
754. @Override
755. protected void onCreate(Bundle
756. savedInstanceState) {
757. super.onCreate(savedInstanceState);
758. setContentView(R.layout.activity_loginsuc
759. cess);
760. }
761.
762. prg 4
763. Activity_main.xml
764. <?xml version="1.0" encoding="utf-8"?>
765. <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
766. xmlns:app="http://schemas.android.com/apk/res-auto"
767. xmlns:tools="http://schemas.android.com/tools"
768. android:layout_width="match_parent"
769. android:layout_height="match_parent"
770. android:orientation="vertical"
771. android:gravity="center" tools:context=".MainActivity">
772. <Button
773. android:id="@+id/btn_start_change_wallpaper"
774. android:layout_width="wrap_content"
775. android:layout_height="wrap_content"
776. android:text="Click here to Change Wallpaper" />
777. </LinearLayout>
778. MainActivity.java
779. package com.example.program5;
780. import androidx.appcompat.app.AppCompatActivity;
781. import android.app.WallpaperManager;
782. import android.graphics.BitmapFactory;
783. import android.os.Bundle;
784. import android.view.View;
785. import android.widget.Button;
786. import java.util.Timer;
787. import java.util.TimerTask;
788. public class MainActivity extends AppCompatActivity implements
789. View.OnClickListener {
790. Button btnChangeWallpaper;
791. boolean running;
792. int[] imagesArray=new int[]

```

```

793. {
794.     R.drawable.img1,
795.     R.drawable.img2,
796.     R.drawable.img3,
797.     R.drawable.img4,
798.     R.drawable.img5
799. };
800. int i=0;
801. @Override
802. protected void onCreate(Bundle savedInstanceState)
803. {
804.     super.onCreate(savedInstanceState);
805.     setContentView(R.layout.activity_main)
806.     btnChangeWallpaper=(Button) findViewById(R.id.btn_start_change_wallpaper);
807.     btnChangeWallpaper.setOnClickListener(this);
808. }
809. @Override
810. public void onClick(View view)
811. {
812.     if(!running)
813.     {
814.         new Timer().schedule (new MyTimer()),0,3000);
815.         running=true;
816.     }
817. }
818. class MyTimer extends TimerTask {
819.     public void run() {
820.         try {
821.             WallpaperManager wallpaperManager =
822.             WallpaperManager.getInstance(getBaseContext());
823.             if(i==12) i=1;
824.             if(i==11) i=2;
825.             if(i==10) i=3;
826.             if(i==9) i=4;
827.             if(i==8) i=5;
828.             if(i==7) i=6;
829.             if(i==6) i=7;
830.             if(i==5) i=8;
831.             if(i==4) i=9;
832.             if(i==3) i=10;
833.
834.             wallpaperManager.setBitmap(BitmapFactory.decodeResource(getResources(),
835.             imagesArray[i]));
836.             i++;
837.         } catch (Exception e)
838.         { }
839.     }
840. } }
841.
842. 5-----
843. package com.example.counterapp;
844. import androidx.annotation.NonNull;
845. import androidx.appcompat.app.AppCompatActivity;
846. import android.os.Bundle;
847. import android.os.Handler;
848. import android.os.Message;
849. import android.view.View;
850. import android.widget.Button;
851. import android.widget.TextView;
852. import org.w3c.dom.Text;
853. public class MainActivity extends AppCompatActivity implements View.OnClickListener
854. {
855.     TextView lblCounter;
856.     Button btnStart,btnStop;
857.     int counter=0;
858.     Boolean running=false;

```

```

858. @Override
859. protected void onCreate(Bundle savedInstanceState) {
860.     super.onCreate(savedInstanceState);
861.     setContentView(R.layout.activity_main);
862.     lblCounter=(TextView)findViewById(R.id.lbl_text);
863.     btnStart=(Button)findViewById(R.id.btn_start);
864.     btnStop=(Button)findViewById(R.id.btn_stop);
865.     btnStop.setOnClickListener(this);
866.     btnStart.setOnClickListener(this);
867. }
868. public void onClick(View v)
869. {
870.     if(v.equals(btnStart))
871.     {
872.         counter=0; running=true;
873.         new MyCounter().start();
874.     }
875.     else if(v.equals(btnStop))
876.     {
877.         running=false;
878.     }
879. }
880. Handler handler=new Handler()
881. {
882.     public void handleMessage(Message m)
883.     {
884.         lblCounter.setText(String.valueOf(m.what));
885.     }
886. };
887. class MyCounter extends Thread
888. {
889.     public void run()
890.     {
891.         while(running)
892.         {
893.             counter++; handler.sendMessage(counter);
894.             try { Thread.sleep(1000);
895.             }
896.             catch(Exception e) { }
897.         }
898.     }
899. }
900. }
901. -----XML p5-----
902. <?xml version="1.0" encoding="utf-8"?>
903. <androidx.constraintlayout.widget.ConstraintLayout
904. xmlns:android="http://schemas.android.com/apk/res/android"
905. xmlns:app="http://schemas.android.com/apk/res-auto"
906. xmlns:tools="http://schemas.android.com/tools"
907. android:layout_width="match_parent"
908. android:layout_height="match_parent"
909. tools:context=".MainActivity">
910.     <TextView
911.         android:id="@+id/textView"
912.         android:layout_width="wrap_content"
913.         android:layout_height="wrap_content"
914.         android:layout_marginTop="40dp"
915.         android:text="Counter Application"
916.         android:textSize="36dp"
917.         app:layout_constraintEnd_toEndOf="parent"
918.         app:layout_constraintStart_toStartOf="parent"
919.         app:layout_constraintTop_toTopOf="parent" />
920.     <TextView
921.         android:id="@+id/lbl_text"
922.         android:layout_width="wrap_content"
923.         android:layout_height="wrap_content"

```

```

924. android:layout_marginTop="128dp"
925. android:text="Counter Value"
926. android:textSize="30dp"
927. app:layout_constraintEnd_toEndOf="parent"
928. app:layout_constraintStart_toStartOf="parent"
929. app:layout_constraintTop_toTopOf="parent" />
930. <Button
931. android:id="@+id/btn_start"
932. android:layout_width="wrap_content"
933. android:layout_height="wrap_content"
934. android:layout_marginTop="56dp"
935. android:text="Start"
936. app:layout_constraintEnd_toEndOf="parent"
937. app:layout_constraintHorizontal_bias="0.461"
938. app:layout_constraintStart_toStartOf="parent"
939. app:layout_constraintTop_toBottomOf="@+id/lbl_text" />
940. <Button
941. android:id="@+id/btn_stop"
942. android:layout_width="wrap_content"
943. android:layout_height="wrap_content"
944. android:layout_marginTop="36dp"
945. android:text="Stop"
946. app:layout_constraintEnd_toEndOf="parent"
947. app:layout_constraintHorizontal_bias="0.461"
948. app:layout_constraintStart_toStartOf="parent"
949. app:layout_constraintTop_toBottomOf="@+id/btn_start" />
950. </androidx.constraintlayout.widget.ConstraintLayout>
951. -----
952. 6 mainactivity-----
953. -----
953. package com.example.parser;
954. import androidx.appcompat.app.AppCompatActivity;
955. import android.content.Intent;
956. import android.os.Bundle;
957. import android.view.View;
958. import android.widget.Button;
959. public class MainActivity extends AppCompatActivity implements View.OnClickListener
960. {
961.     Button btnParseXml,btnParseJson;
962.     @Override
963.     protected void onCreate(Bundle savedInstanceState) {
964.         super.onCreate(savedInstanceState);
965.         setContentView(R.layout.activity_main);
966.         btnParseXml=(Button)findViewById(R.id.btn_parsexml);
967.         btnParseJson=(Button)findViewById(R.id.btn_parsejson);
968.         btnParseJson.setOnClickListener(this);
969.         btnParseXml.setOnClickListener(this);
970.     }
971.     @Override
972.     public void onClick(View v) {
973.         if(v.equals(btnParseJson))
974.         {
975.             Intent it=new Intent(this,view.class); it.putExtra("mode",1);//make it view as
976.             ViewActivity
977.             startActivity(it);
978.         }
979.         else if(v.equals(btnParseXml))
980.         {
981.             Intent it=new Intent(this,view.class); it.putExtra("mode",2);
982.             startActivity(it);
983.         }
984.     }
985. }
986. -----activity_main.xml-----
987. <?xml version="1.0" encoding="utf-8"?>
988. <androidx.constraintlayout.widget.ConstraintLayout

```

```

985. xmlns:android="http://schemas.android.com/apk/res/android"
986. xmlns:app="http://schemas.android.com/apk/res-auto"
987. xmlns:tools="http://schemas.android.com/tools"
988. android:layout_width="match_parent"
989. android:layout_height="match_parent"
990. tools:context=".MainActivity">
991.     <Button android:id="@+id/btn_parsexml"
992.         android:layout_width="wrap_content"
993.         android:layout_height="wrap_content"
994.         android:layout_marginTop="80dp"
995.         android:text="Parse XML Data"
996.         app:layout_constraintEnd_toEndOf="parent"
997.         app:layout_constraintStart_toStartOf="parent"
998.         app:layout_constraintTop_toBottomOf="@+id/textView4" />
999.     <Button
1000.         android:id="@+id/btn_parsejson"
1001.         android:layout_width="wrap_content"
1002.         android:layout_height="wrap_content"
1003.         android:layout_marginTop="80dp"
1004.         android:text="Parse Json Data"
1005.         app:layout_constraintEnd_toEndOf="parent"
1006.         app:layout_constraintStart_toStartOf="parent"
1007.         app:layout_constraintTop_toBottomOf="@+id/btn_parsexml" />
1008.         <TextView android:id="@+id/textView4"
1009.             android:layout_width="wrap_content"
1010.             android:layout_height="wrap_content"
1011.             android:layout_marginTop="40dp"
1012.             android:text="PARSING XML AND JSON DATA"
1013.             android:textSize="20dp"
1014.             app:layout_constraintEnd_toEndOf="parent"
1015.             app:layout_constraintStart_toStartOf="parent"
1016.             app:layout_constraintTop_toTopOf="parent" />
1017.     </androidx.constraintlayout.widget.ConstraintLayout>
1018. -----
1019. ----- 6 view activity-----
1020. -----
1021. package com.example.parser;
1022. import androidx.appcompat.app.AppCompatActivity;
1023. import android.os.Bundle;
1024. import android.widget.TextView;
1025. import org.json.JSONObject;
1026. import org.w3c.dom.Document;
1027. import org.w3c.dom.Element;
1028. import org.w3c.dom.Node;
1029. import org.w3c.dom.NodeList;
1030. import java.io.InputStream;
1031. import java.util.List;
1032. import javax.xml.parsers.DocumentBuilder;
1033. import javax.xml.parsers.DocumentBuilderFactory;
1034. public class view extends AppCompatActivity {
1035.     TextView lblXmlData, lblJsonData; int n,i;//make it as ViewActivity
1036.     int mode=0;
1037.     @Override
1038.     protected void onCreate(Bundle savedInstanceState) {
1039.         super.onCreate(savedInstanceState);
1040.         setContentView(R.layout.activity_view);
1041.         lblXmlData=(TextView)findViewById(R.id.lbl_xml_data);
1042.         lblJsonData=(TextView)findViewById(R.id.lbl_json_data);
1043.         mode=getIntent().getIntExtra("mode",0);
1044.         if(mode==1) parseJson();
1045.         else parseXmlDocument();
1046.     }
1047.     public String parseXmlDocument()
1048.     {
1049.         try {

```



```

1046.         InputStream is = getAssets().open("input.xml");
1047.         DocumentBuilderFactory dbFactory = DocumentBuilderFactory.newInstance();
1048.         DocumentBuilder dBuilder = dbFactory.newDocumentBuilder();
1049.         Document doc = dBuilder.parse(is);
1050.         Element element=doc.getDocumentElement(); element.normalize();
1051.         NodeList nList = doc.getElementsByTagName("employee");
1052.         for (int i=0; i<n;i++)
1053.             nList.getLength();
1054.         {
1055.             Node node = nList.item(i);
1056.             if (node.getNodeType() == Node.ELEMENT_NODE) { Element element2 = (Element)
node;
1057.                 lblXmlData.setText("City Name : " + getValue("city_name", element2)+"\n");
1058.                 lblXmlData.append("Latitude : " + getValue("Latitude", element2)+"\n");
1059.                 lblXmlData.append("Longitude : " + getValue("Longitude", element2)+"\n");
1060.                 lblXmlData.append("Temperature : " + getValue("Temperature",
element2)+"\n");
1061.                 lblXmlData.append("Humidity : " + getValue("Humidity", element2)+"\n");
1062.             }
1063.         }
1064.     }
1065.     catch (Exception e) {e.printStackTrace();} return null;
1066. }
1067.     private static String getValue(String tag, Element element) { NodeList
nodeList =
1068.         element.getElementsByTagName(tag).item(0).getChildNodes(); Node node =
nodeList.item(0);
1069.         return node.getNodeValue();
1070.     }
1071.     public void parseJson()
1072.     {
1073.         try { InputStream inputStream=getAssets().open("input.json");
1074.             byte[] data=new byte[inputStream.available()];
1075.             inputStream.read(data);
1076.             String readData=new String(data); JSONObject jsonObject=new
JSONObject(readData);
1077.             JSONObject jsonObject1=jsonObject.getJSONObject("employee");
1078.             lblJsonData.setText("City Name:"+jsonObject1.getString("city_name")+"\n");
1079.             lblJsonData.append("Latitude:"+jsonObject1.getString("Latitude")+"\n");
1080.             lblJsonData.append("Longitude:"+jsonObject1.getString("Longitude")+"\n");
1081.             lblJsonData.append("Temperature:"+jsonObject1.getInt("Temperature")+"\n");
1082.             lblJsonData.append("Humidity"+jsonObject1.getString("Humidity")+"\n");
1083.         }
1084.         catch (Exception e) {e.printStackTrace();}
1085.     }
1086. }
1087. -----
-----
1088. -----activity_view.xml-----
1089. <?xml version="1.0" encoding="utf-8"?>
1090. <androidx.constraintlayout.widget.ConstraintLayout
1091. xmlns:android="http://schemas.android.com/apk/res/android"
1092. xmlns:app="http://schemas.android.com/apk/res-auto"
1093. xmlns:tools="http://schemas.android.com/tools"
1094. android:layout_width="match_parent"
1095. android:layout_height="match_parent"
1096. tools:context=".ViewActivity">
1097.     <TextView android:id="@+id/lbl_xml_data"
1098. android:layout_width="wrap_content"
1099. android:layout_height="wrap_content"
1100. android:layout_marginTop="30dp"
1101. android:text="Xml Data"
1102. app:layout_constraintStart_toStartOf="@+id/textView2"
1103. app:layout_constraintTop_toBottomOf="@+id/textView2" />
1104.     <TextView
1105. android:id="@+id/textView"

```

```

1106.         android:layout_width="wrap_content"
1107.         android:layout_height="wrap_content"
1108.         android:layout_marginTop="40dp"
1109.         android:text="PARSING XML AND JSON DATA"
1110.         android:textSize="20dp"
1111.         app:layout_constraintEnd_toEndOf="parent"
1112.         app:layout_constraintStart_toStartOf="parent"
1113.         app:layout_constraintTop_toTopOf="parent" />
1114.         <TextView android:id="@+id/textView2"
1115.         android:layout_width="wrap_content"
1116.         android:layout_height="wrap_content"
1117.         android:layout_marginStart="40dp"
1118.         android:layout_marginTop="20dp"
1119.         android:text="XML DATA"
1120.         app:layout_constraintStart_toStartOf="parent"
1121.         app:layout_constraintTop_toBottomOf="@+id/textView" />
1122.         <TextView android:id="@+id/textView3"
1123.         android:layout_width="wrap_content"
1124.         android:layout_height="wrap_content"
1125.         android:layout_marginTop="20dp"
1126.         android:layout_marginEnd="40dp"
1127.         android:text="JSON DATA"
1128.         app:layout_constraintEnd_toEndOf="parent"
1129.         app:layout_constraintTop_toBottomOf="@+id/textView" />
1130.         <TextView android:id="@+id/lbl_json_data"
1131.         android:layout_width="wrap_content"
1132.         android:layout_height="wrap_content"
1133.         android:layout_marginTop="30dp"
1134.         android:text="Json Data"
1135.         app:layout_constraintEnd_toEndOf="@+id/textView3"
1136.         app:layout_constraintTop_toBottomOf="@+id/textView3" />
1137.     </androidx.constraintlayout.widget.ConstraintLayout>
1138. 7-----
-----
1139.     package com.example.tts;
1140.     import androidx.appcompat.app.AppCompatActivity;
1141.     import android.os.Bundle;
1142.     import android.speech.tts.TextToSpeech;
1143.     import android.view.View;
1144.     import android.widget.Button;
1145.     import android.widget.EditText;
1146.     import android.widget.Toast;
1147.     import java.util.Locale;
1148.     public class MainActivity extends AppCompatActivity implements
View.OnClickListener
1149.     {
1150.         EditText txtSpeak;
1151.         Button btnSpeak;
1152.         TextToSpeech textToSpeech;
1153.         @Override
1154.         protected void onCreate(Bundle savedInstanceState)
1155.         {
1156.             super.onCreate(savedInstanceState);
1157.             setContentView(R.layout.activity_main);
1158.             txtSpeak=(EditText)findViewById(R.id.editText);
1159.             btnSpeak=(Button)findViewById(R.id.btn_speak);
1160.             btnSpeak.setOnClickListener(this);
1161.             textToSpeech=new TextToSpeech(getBaseContext(),new
TextToSpeech.OnInitListener() {
1162.                 @Override
1163.                 public void onInit(int status)
1164.                 {
1165.                     if(status!=TextToSpeech.ERROR)
1166.                     {
1167.                         Toast.makeText(getBaseContext(),"Success", Toast.LENGTH_LONG).show();
1168.                     }

```

```

1169.     }
1170.     });
1171.     textToSpeech.setLanguage(Locale.UK);
1172. }
1173. public void onClick(View v)
1174. {
1175.     String text=txtSpeak.getText().toString();
1176.     textToSpeech.speak(text,TextToSpeech.QUEUE_FLUSH,null);
1177. }
1178. }
1179. -----

```

```

1180. -----p7 xml -----
1181. <?xml version="1.0" encoding="utf-8"?>
1182. <androidx.constraintlayout.widget.ConstraintLayout
1183. xmlns:android="http://schemas.android.com/apk/res/android"
1184. xmlns:app="http://schemas.android.com/apk/res-auto"
1185. xmlns:tools="http://schemas.android.com/tools"
1186. android:layout_width="match_parent"
1187. android:layout_height="match_parent"
1188. tools:context=".MainActivity">
1189.     <TextView
1190. android:layout_width="wrap_content"
1191. android:layout_height="wrap_content"
1192. android:text="Text to Speak Application"
1193. android:textSize="24sp"
1194. android:textStyle="bold"
1195. app:layout_constraintBottom_toBottomOf="parent"
1196. app:layout_constraintEnd_toEndOf="parent"
1197. app:layout_constraintHorizontal_bias="0.432"
1198. app:layout_constraintStart_toStartOf="parent"
1199. app:layout_constraintTop_toTopOf="parent"
1200. app:layout_constraintVertical_bias="0.098" />
1201.     <EditText
1202. android:id="@+id/editText"
1203. android:layout_width="wrap_content"
1204. android:layout_height="wrap_content"
1205. android:ems="10"
1206. android:inputType="textPersonName"
1207. android:text="Enter the Text"
1208. app:layout_constraintBottom_toBottomOf="parent"
1209. app:layout_constraintEnd_toEndOf="parent"
1210. app:layout_constraintHorizontal_bias="0.373"
1211. app:layout_constraintStart_toStartOf="parent"
1212. app:layout_constraintTop_toTopOf="parent"
1213. app:layout_constraintVertical_bias="0.295"
1214. />
1215.     <Button
1216. android:id="@+id/btn_speak"
1217. android:layout_width="wrap_content"
1218. android:layout_height="wrap_content"
1219. android:text="\Speak"
1220. android:textSize="24sp"
1221. android:textStyle="bold"
1222. app:layout_constraintBottom_toBottomOf="parent"
1223. app:layout_constraintEnd_toEndOf="parent"
1224. app:layout_constraintHorizontal_bias="0.498"
1225. app:layout_constraintStart_toStartOf="parent"
1226. app:layout_constraintTop_toTopOf="parent" />
1227. </androidx.constraintlayout.widget.ConstraintLayout>
1228. 8-----

```

```

1229. package com.example.dialer;
1230. import androidx.appcompat.app.AppCompatActivity;
1231. import android.content.Intent;
1232. import android.net.Uri;

```

```

1233.     import android.os.Bundle;
1234.     import android.provider.ContactsContract;
1235.     import android.view.View;
1236.     import android.widget.Button;
1237.     import android.widget.EditText;
1238.     public class MainActivity extends AppCompatActivity implements
View.OnClickListener
1239.     {
1240.         Button btnOne,btnTwo,btnThree,btnFour,btnFive;
1241.         Button btnSix,btnSeven,btnEight,btnNine,btnZero;
1242.         Button btnDel,btnStar,btnHash,btnCall,btnSave;
1243.         EditText txtPhonenumber;
1244.         @Override
1245.         protected void onCreate(Bundle savedInstanceState)
1246.         {
1247.             super.onCreate(savedInstanceState);
1248.             setContentView(R.layout.activity_main);
1249.             btnOne=(Button)findViewById(R.id.btn_one); btnOne.setOnClickListener(this);
1250.             btnTwo=(Button)findViewById(R.id.btn_two); btnTwo.setOnClickListener(this);
1251.             btnThree=(Button)findViewById(R.id.btn_three);
            btnThree.setOnClickListener(this);
1252.             btnFour=(Button)findViewById(R.id.btn_four);
            btnFour.setOnClickListener(this);
1253.             btnFive=(Button)findViewById(R.id.btn_five);
            btnFive.setOnClickListener(this);
1254.             btnSix=(Button)findViewById(R.id.btn_six); btnSix.setOnClickListener(this);
1255.             btnSeven=(Button)findViewById(R.id.btn_seven);
            btnSeven.setOnClickListener(this);
1256.             btnEight=(Button)findViewById(R.id.btn_eight);
            btnEight.setOnClickListener(this);
1257.             btnNine=(Button)findViewById(R.id.btn_nine);
            btnNine.setOnClickListener(this);
1258.             btnZero=(Button)findViewById(R.id.btn_zero);
            btnZero.setOnClickListener(this);
1259.             btnStar=(Button)findViewById(R.id.btn_star);
            btnStar.setOnClickListener(this);
1260.             btnHash=(Button)findViewById(R.id.btn_hash);
            btnHash.setOnClickListener(this);
1261.             btnCall=(Button)findViewById(R.id.btn_call);
            btnCall.setOnClickListener(this);
1262.             btnSave=(Button)findViewById(R.id.btn_save);
            btnSave.setOnClickListener(this);
1263.             btnDel=(Button)findViewById(R.id.btn_delete);
            btnDel.setOnClickListener(this);
1264.             txtPhonenumber=(EditText)findViewById(R.id.txt_phonenumber);
            txtPhonenumber.setText("");
1265.         }
1266.         public void onClick(View v)
1267.         {
1268.             if(v.equals(btnOne)) txtPhonenumber.append("1");
1269.             else if(v.equals(btnTwo)) txtPhonenumber.append("2");
1270.             else if(v.equals(btnThree)) txtPhonenumber.append("3");
1271.             else if(v.equals(btnFour)) txtPhonenumber.append("4");
1272.             else if(v.equals(btnFive)) txtPhonenumber.append("5");
1273.             else if(v.equals(btnSix)) txtPhonenumber.append("6");
1274.             else if(v.equals(btnSeven)) txtPhonenumber.append("7");
1275.             else if(v.equals(btnEight)) txtPhonenumber.append("8");
1276.             else if(v.equals(btnNine)) txtPhonenumber.append("9");
1277.             else if(v.equals(btnZero)) txtPhonenumber.append("0");
1278.             else if(v.equals(btnStar)) txtPhonenumber.append("*");
1279.             else if(v.equals(btnHash)) txtPhonenumber.append("#");
1280.             else if(v.equals(btnSave))
1281.             {
1282.                 Intent contactIntent= new Intent(ContactsContract.Intents.Insert.ACTION);
1283.                 contactIntent.setType(ContactsContract.RawContacts.CONTENT_TYPE);
1284.                 contactIntent.putExtra(ContactsContract.Intents.Insert.NAME, "Unknown");

```

```

1285.         contactIntent.putExtra(ContactsContract.Intents.Insert.PHONE,
1286. txtPhonenumber.getText().toString());
1287.         startActivity(contactIntent);
1288.     }
1289.     else if(v.equals(btnDel))
1290.     {
1291.         String data=txtPhonenumber.getText().toString();
1292.         if(data.length()>0)
1293.         {
1294.             txtPhonenumber.setText(data.substring(0,data.length()-1));
1295.         }
1296.     else
1297.     {
1298.         txtPhonenumber.setText("");
1299.     }
1300.     }
1301.     btnCall.setOnClickListener(new View.OnClickListener() {
1302.         @Override
1303.         public void onClick(View v) {
1304.             String data = txtPhonenumber.getText().toString(); Intent intent=new
1305. Intent(Intent.ACTION_DIAL);
1306.             intent.setData(Uri.parse("tel:"+ data));
1307.             startActivity(intent);
1308.         }
1309.     });
1310. }
1311. }
1312. -----p8 XML-----

```

```

1313. <?xml version="1.0" encoding="utf-8"?>
1314. <androidx.constraintlayout.widget.ConstraintLayout
1315. xmlns:android="http://schemas.android.com/apk/res/android"
1316. xmlns:app="http://schemas.android.com/apk/res-auto"
1317. xmlns:tools="http://schemas.android.com/tools"
1318. android:layout_width="match_parent"
1319. android:layout_height="match_parent"
1320. tools:context=".MainActivity">
1321.     <TextView
1322.         android:id="@+id/textView"
1323.         android:layout_width="wrap_content"
1324.         android:layout_height="wrap_content"
1325.         android:text="Phone Dialer"
1326.         android:textSize="20sp"
1327.         android:textStyle="bold"
1328.         app:layout_constraintBottom_toBottomOf="parent"
1329.         app:layout_constraintEnd_toEndOf="parent"
1330.         app:layout_constraintHorizontal_bias="0.45"
1331.         app:layout_constraintStart_toStartOf="parent"
1332.         app:layout_constraintTop_toTopOf="parent"
1333.         app:layout_constraintVertical_bias="0.046" />
1334.     <EditText
1335.         android:id="@+id/txt_phonenumber"
1336.         android:layout_width="wrap_content"
1337.         android:layout_height="wrap_content"
1338.         android:layout_marginStart="20dp"
1339.         android:layout_marginTop="30dp" android:ems="10"
1340.         android:inputType="textPersonName"
1341.         app:layout_constraintStart_toStartOf="parent"
1342.         app:layout_constraintTop_toBottomOf="@+id/textView" />
1343.     <Button
1344.         android:id="@+id/btn_delete"
1345.         android:layout_width="wrap_content"
1346.         android:layout_height="wrap_content"
1347.         android:layout_marginStart="20dp"
1348.         android:layout_marginTop="30dp"
1349.         android:text="Delete"

```

```
1350. app:layout_constraintStart_toEndOf="@+id/txt_phonenumber"
1351. app:layout_constraintTop_toBottomOf="@+id/textView" />
1352. <Button
1353. android:id="@+id/btn_one"
1354. android:layout_width="wrap_content"
1355. android:layout_height="wrap_content"
1356. android:layout_marginStart="20dp"
1357. android:layout_marginTop="30dp" android:text="1"
1358. app:layout_constraintStart_toStartOf="parent"
1359. app:layout_constraintTop_toBottomOf="@+id/txt_phonenumber" />
1360. <Button android:id="@+id/btn_two"
1361. android:layout_width="wrap_content"
1362. android:layout_height="wrap_content"
1363. android:layout_marginTop="30dp"
1364. android:text="2"
1365. app:layout_constraintEnd_toStartOf="@+id/btn_three"
1366. app:layout_constraintStart_toEndOf="@+id/btn_one"
1367. app:layout_constraintTop_toBottomOf="@+id/txt_phonenumber" />
1368. <Button
1369. android:id="@+id/btn_three"
1370. android:layout_width="wrap_content"
1371. android:layout_height="wrap_content"
1372. android:layout_marginTop="30dp"
1373. android:layout_marginEnd="20dp"
1374. android:text="3"
1375. app:layout_constraintEnd_toEndOf="parent"
1376. app:layout_constraintTop_toBottomOf="@+id/txt_phonenumber" />
1377. <Button
1378. android:id="@+id/btn_four"
1379. android:layout_width="wrap_content"
1380. android:layout_height="wrap_content"
1381. android:layout_marginStart="20dp"
1382. android:layout_marginTop="30dp"
1383. android:text="4"
1384. app:layout_constraintStart_toStartOf="parent"
1385. app:layout_constraintTop_toBottomOf="@+id/btn_one" />
1386. <Button
1387. android:id="@+id/btn_five"
1388. android:layout_width="wrap_content"
1389. android:layout_height="wrap_content"
1390. android:layout_marginTop="30dp"
1391. android:text="5"
1392. app:layout_constraintEnd_toStartOf="@+id/btn_six"
1393. app:layout_constraintStart_toEndOf="@+id/btn_four"
1394. app:layout_constraintTop_toBottomOf="@+id/btn_two" />
1395. <Button
1396. android:id="@+id/btn_six"
1397. android:layout_width="wrap_content"
1398. android:layout_height="wrap_content"
1399. android:layout_marginTop="30dp"
1400. android:layout_marginEnd="20dp"
1401. android:text="6"
1402. app:layout_constraintEnd_toEndOf="parent"
1403. app:layout_constraintTop_toBottomOf="@+id/btn_three" />
1404. <Button
1405. android:id="@+id/btn_seven"
1406. android:layout_width="wrap_content"
1407. android:layout_height="wrap_content"
1408. android:layout_marginStart="20dp"
1409. android:layout_marginTop="30dp"
1410. android:text="7"
1411. app:layout_constraintStart_toStartOf="parent"
1412. app:layout_constraintTop_toBottomOf="@+id/btn_four" />
1413. <Button
1414. android:id="@+id/btn_eight"
1415. android:layout_width="wrap_content"
```

```

1416.     android:layout_height="wrap_content"
1417.     android:layout_marginTop="30dp"
1418.     android:text="8"
1419.     app:layout_constraintEnd_toStartOf="@+id/btn_nine"
1420.     app:layout_constraintStart_toEndOf="@+id/btn_seven"
1421.     app:layout_constraintTop_toBottomOf="@+id/btn_five"
1422. />
1423.     <Button
1424.     android:id="@+id/btn_nine"
1425.     android:layout_width="wrap_content"
1426.     android:layout_height="wrap_content"
1427.     android:layout_marginTop="30dp"
1428.     android:layout_marginEnd="20dp"
1429.     android:text="9"
1430.     app:layout_constraintEnd_toEndOf="parent"
1431.     app:layout_constraintTop_toBottomOf="@+id/btn_six" />
1432.     <Button
1433.     android:id="@+id/btn_zero"
1434.     android:layout_width="wrap_content"
1435.     android:layout_height="wrap_content"
1436.     android:layout_marginTop="30dp"
1437.     android:text="0"
1438.     app:layout_constraintEnd_toEndOf="parent"
1439.     app:layout_constraintStart_toStartOf="parent"
1440.     app:layout_constraintTop_toBottomOf="@+id/btn_eight" />
1441.     <Button
1442.     android:id="@+id/btn_call"
1443.     android:layout_width="wrap_content"
1444.     android:layout_height="wrap_content"
1445.     android:layout_marginStart="20dp"
1446.     android:layout_marginTop="30dp"
1447.     android:text="Call"
1448.     app:layout_constraintStart_toStartOf="parent"
1449.     app:layout_constraintTop_toBottomOf="@+id/btn_zero" />
1450.     <Button
1451.     android:id="@+id/btn_save"
1452.     android:layout_width="wrap_content"
1453.     android:layout_height="wrap_content"
1454.     android:layout_marginTop="30dp"
1455.     android:layout_marginEnd="20dp"
1456.     android:text="Save"
1457.     app:layout_constraintEnd_toEndOf="parent"
1458.     app:layout_constraintTop_toBottomOf="@+id/btn_zero" />
1459.     <Button
1460.     android:id="@+id/btn_start"
1461.     android:layout_width="wrap_content"
1462.     android:layout_height="wrap_content"
1463.     android:layout_marginStart="20dp"
1464.     android:layout_marginTop="30dp"
1465.     android:text="*"
1466.     app:layout_constraintStart_toStartOf="parent"
1467.     app:layout_constraintTop_toBottomOf="@+id/btn_seven" />
1468.     <Button
1469.     android:id="@+id/btn_hash"
1470.     android:layout_width="wrap_content"
1471.     android:layout_height="wrap_content"
1472.     android:layout_marginTop="30dp"
1473.     android:layout_marginEnd="20dp"
1474.     android:text="#"
1475.     app:layout_constraintEnd_toEndOf="parent"
1476.     app:layout_constraintTop_toBottomOf="@+id/btn_nine" />
1477. </androidx.constraintlayout.widget.ConstraintLayout>

```