4) Keyboards

Activity_main.xml

```xml
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/e
    s/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.example.android.keyboardsam
    ples.MainActivity"> <Button
        android:id="@+id/button_main"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentRight="true"
        android:onClick="showText"
        android:text="@string/show" />
    <EditText
        android:id="@+id/editText_main"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:inputType="textPassword"
        android:layout_toLeftOf="@id/button_main"
        android:hint="@string/enter" />
</RelativeLayout>
```

MainActivity.java

Import ……

public class MainActivity extends AppCompatActivity {

```java
 @Override

 protected void onCreate(Bundle savedInstanceState) {

   super.onCreate(savedInstanceState);

   setContentView(R.layout.activity_main);

 }

 public void showText(View view) {

   EditText editText = (EditText)

   findViewById(R.id.editText_main); if

   (editText != null) {

     String showString =

     editText.getText().toString();

     Toast.makeText(this, showString,

     Toast.LENGTH_SHORT).show();

} } }
```
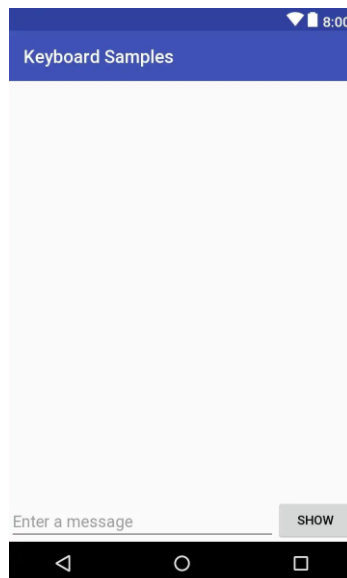
Output :-

5) Input Control

Activity_main.xml

```xml
<RelativeLayout

  xmlns:android="http://schemas.android.com/apk/res/

  android"

  xmlns:tools="http://schemas.android.com/tools"

  android:layout_width="match_parent"

  android:layout_height="match_parent"

  tools:context="com.example.android.phonenumbers

  pinner.MainActivity"> <LinearLayout

    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="horizontal">
    <EditText
      android:id="@+id/editText_main"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:inputType="phone"
      android:hint="@string/hint_phonenumber" />
    <Spinner
      android:id="@+id/label_spinner"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content">
    </Spinner>
```

```xml
    <Button

      android:id="@+id/button_main"

      android:layout_width="wrap_content"

      android:layout_height="wrap_content"

      android:onClick="showText"

      android:text="@string/show_button" />

  </LinearLayout>

<LinearLayout

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:orientation="horizontal"

    android:layout_alignParentBottom="true">

    <TextView

      android:id="@+id/title_phonelabel"

      android:layout_width="wrap_content"

      android:layout_height="wrap_content"

      android:text="@string/phonenumber_label"/>

    <TextView

      android:id="@+id/text_phonelabel"

      android:layout_width="wrap_content"

      android:layout_height="wrap_content"

      android:text="@string/nothing_entered"/>

  </LinearLayout>

</RelativeLayout>
```

MainActivity.java

```java
public class MainActivity extends AppCompatActivity implements
  AdapterView.OnItemSelectedListener { private static final String TAG
  = MainActivity.class.getSimpleName();

  private String mSpinnerLabel = "";

  @Override

  protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);

    Spinner spinner = (Spinner)
    findViewById(R.id.label_spinner); if
    (spinner != null) {

      spinner.setOnItemSelectedListener(this);

    }
ArrayAdapter<CharSequence> adapter =
ArrayAdapter.createFromResource(this, R.array.labels_array,

android.R.layout.simple_spinner_item);

adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdow
n_item)

    if (spinner != null) {

      spinner.setAdapter(adapter);        }        }

  public void showText(View view) {

    EditText editText = (EditText)
    findViewById(R.id.editText_main); if
    (editText != null) {
```

```
String showString = (editText.getText().toString()
+ " - " + mSpinnerLabel); Toast.makeText(this,
showString, Toast.LENGTH_SHORT).show();
TextView textView =
(TextView)findViewById(R.id.text_phonelabel);
textView.setText(showString); } }
```

@Override

```
public void onItemSelected(AdapterView<?>
  adapterView, View view, int i, long l) { mSpinnerLabel
  = adapterView.getItemAtPosition(i).toString();
  showText(view); }
```

@Override

```
public void
  onNothingSelected(AdapterView<?>
  adapterView) { Log.d(TAG,
  getString(R.string.nothing_selected)); }
```

.string.nothing_selected));

Output :-