```
----- UI -----
strings.xml
<string-array name="Mylist">
       <item>Item 1</item>
</string-array>
activity.xml
<spinner entries=".../MyList"/>
Main
int radioId = radioGroup.getCheckedRadioButtonId()
RadioButton radio = findViewById(radioId)
radioButton.clearCheck()
checkBox.isChecked()
checkBox.toggle()
spinner.getSelectedItem().toString()
Intent intent = new Intent(getApplCon(), DisplayActivity.class);
intent.putExtra("name",name)
intent.getString("name")
public void onbtnClick(View view){ int btnId = view.getId();}
Toast.makeText(getAppCont(),"Message",Toast.LENGTH_SHORT).show()
-----GRAPHICS -----
Bitmap bitmap = Bitmap.createBitmap(400,600,ARGB8888)
```

```
image.setBackgroundDrawable(new BitmapDrawable(bitmap))
Canvas canvas = new Canvas(bitmap)
-----ANIMATION-----
iv.animate().translationXBy(-50f).setDuration(1000)
iv.animate().rotationBy(360).setDuration(1000)
Animation zoom = AnimationUtils.loadAnimation(getAppCont(),R.anim.zoom)
iv.startAnimation(zoom)
zoom:
<scale
       fromX="1" toX="2" fromY="1" toY="2" duration="1000"> </scale>
fade:
<aplha fromAlpha="0" toAlpha="1" dutation="1000"/>
---- DATABASE ----
SQLLiteDatabase db
db = openOrCreateDatabase("db",MODE_PRIVATE, null)
db.execSql("drop table if exists User")
db.exectSQL("create table User(id varchar PRIMARY KEY, name varchar)")
db.execSQL("insert into User values(?,?)",new String[]{"1","name"})
db.execSQL("update User set name = ? where id = ?", new String[]{"name","1"})
db.execSQL("delete from User where id=?",new String[]{"1"})
Cursor res = db.rawQuery("select * from User where id=?",new String[]{"1"})
while(res.moveTonext()){String id = res.getString(0)}
```

```
ActivityCompact.requestPermissions(MainActivity.this, new String[]{READ_SMS, RECEIVE_SMS,
SEND_SMS, READ_PHONE_STATE},1)
SmsManager smsmanger = SmsManager.getDefault()
smsManager.sendTetMessage(number,null, message,null, null)
---- SD CARD ----
ActivityCompat.requestPermission(MainAct.this, new String[] {WRTE_EXTERNAL_STORAGE,
READ_EXTERNAL_STORAGE},1)
write:
File file = new File(getExternalFilesDir("files"),filename)
try{
FileOutputStream fo = new FileOutputStream(file)
fo.write(content.getBytes())
fo.close()
}
read:
try{
       BufferedReader br = new BufferedReader(new FileReader(file))
       while((line = br.readLine())!=null){ text+=line}
}
--- MULTITHREADING ----
Handler handler = new Handler()
runnable.run()
Runnable runnable = new runnable(){
       try{
               Random random = new Random //import java.util.Random
```

```
tv.setColor(Color.argb(255,random.nextInt(256),random.nextInt(256)),random.nextInt(256)))
       }
       catch(){}
       finally{ handler.postDelayed(runnable,500)}
}
handler.removeCallbacks(runnable)
new Thread(new Runnable(){
       try{}
       catch(){}
}).start()
--- LOCATION ----
... implements LocationListener
ActivityCompat.requestPermission(MainAct.this, new String[] {ACCESS_COARSE_LOCATION},1)
getLocation():
       LocationManager lm = (LocationManager)getSystemService(Context.LOCATION_SERVICE)
       Im.requestLocationUpdates("gps",1000,5,this)
override onLocationChanged():
       location.getLatitude()
       location.getLongitude()
       Geocoder geocoder = new Geocoder(this,Locale.getDefault())
       try{
```

```
<List> addresses = geocoder.getFromLocation(location.getLatitude(),
location.getLongitude(),1);
       tv.setText(addresses.get(0).getAddressLine(0));
                       OR
                addresses = geocoder.getFromLocationName(place, 1);
                address.get(0).getLatitude()
                address.get(0).getLongitude()
       }
--- HYBRID ---
String customHtml = "<html><body><h1>hi</h1></body></html>"
wv.loadData(customHtml,"text/html","UTF-8")
--- CALCULATOR ---
implementation 'com.fatzher:javaluator:3.0.3'
import\ com. fatzher. soft. javaluator. Double Evaluator
DoubleEvaluator de = new DoubleEvaluator()
res = de.evaluate(exp).toString()
---- URL OPENER ----
wv.setWebViewclient(new WebViewClient())
wv.getSetting().setJavascriptEnable(true)
wv.loadUrl(url)
```

```
add permission: INTERNET

--- CALENDER ----

calenderWidget.setVisibility(View.INVISIBLE)

calendarWidget.setOnDateChangeListener(new Cal ....

year, month, date -order

})

---- MENU ----

onCreateMenuOption override

menu resource directory and add your menu resouce file in it

link the menu reosurc efile to app using menu inflator

you can go to new intent onselecting each menu option by using onSlectMenuOption()
```