Theory: In this experiment, we build an app that uses database We bill the user interface and place components using Absolute layout. The functionalities of the app include Inserting, Ocleting, Updating, Viewing a relaid and viewing all records at once like use the Squite Database for implementing these functionalities Android comes in with built-in Squite database to supposet all relational database features. In order to access a Squite database we don't need to estabilish any connection The following functions are used for the database operations openOr (weate Database (): to open an alweady existing datab Tase or create a new one if it doesn't enist a. exected! (): to insent, delite and update data in the 3. rawquery(): its execute the SFLECT query, in turn return a Cursor object that acts as a handle its ithe result let returned by the SELECT query. We we an instance of anduaid app. Aleut Dialog. Builder clase to view all resounds of the table. The Builden Class has a constructor that creater a builder for an aleut dialog that was the default about dialog theme. The Builder class has methods like setTitle (), set Message () and show!) The restitles is used to set the title of the Builder view. The cet Message () is used to det the content of the Builder view and chaw() is used to display the view on the scelen. We get event listeness on every button and perform the desired functionality in the on Click method.

Derign Droignam: -

TW4
Student Details
end at advantage and a softweent wetards, and is any formally
Enter Polling:
Enter Rolling: 100 Marie: 100 Mar
None of the New Mark: 1 - 100 100 100 1100 1100
INSERT DELETE
on patient showly no new of classification of the
Jam ENUPPATED IN WIEW, OF THE SECOND
VIEW ALL
VIEW ALL
mountaine many of the salt the same and a consider
I There is the at although a sanctage to the traited round we
and the contraction of the first in the contraction
will in product ago received to uno it no we all
walk while I stop edeforty to have be the wind of the
who we call while a supplied or supplied and a supplied with
difficultive in the property of the property of the second
I would take the test the in the test of end of end of the literatures
IT TO JUST THE THE AT A TO A METAL THE THE THORK OF THE
Brook rate use of hope of the way of the relation of the
with a planch of heart of the branch over the test of

```
XML cade: - (activity_main.xml)
(? rune vernian = "1.0" encoding = " uy -8"?)
(Abrabute layout rembre: andriaid =" http://schemas.andraid.com/apk/res
                                                    landuaid"
   andusid: layout_midth = " match_powent"
   arduaid: layout_hight = " match_pauent">
   < Tent View
     anduaid: layout_ midth = " weap_ content"
     anduaid: layout_height = " weap_ content"
     anduaid: buyout _ x = "50 ap"
     andriad: layout _y = "20 ap"
     anduaid: tent = "Student Details"
     anduaid: tentsize = "30 sp" />
  < Tent View
     andusid: layout_wiath = "wap_centent"
     anduaid: layout_height = " weap_lanterd"
     andusid: layout_x = "20 ap"
     anduaid: layout_y = "110 ap"
      anderaid: lent = "Enter Rauno: "
      andusis: tent lige = "20 sp" 1>
  < Edu Tint
     anduaid: id = "@+id/Rolling"
     andusid: layout_nigth = "150 ap"
     anduaid: layout_height = " wap_content"
      anduaid: layout_x = "175ap"
      anducid: tayout -y = "100 ap"
      andraid: input Type = "number"
      anduaid: terrisize= "20 cp" 1)
  < Tentriew
      anduaid: id = " what = " what cantent
```

```
anduaid: layout hight =" weap_content"
   anduaid: layou _ x = " 20dp"
   anduaid: layout - y = "160 ap"
   anduaid: tent = "Enter Name:
   anduaid: tentsize = "20 sp" />
< Edil Tent
   anduaid: id = " @ + id / Name"
   anderaid: layout_midth = "150 ap"
   anderoid: layout_height = "weap_content"
   anducid layout = "175ap"
   andusid: layout-y = "150 ap"
   anduaid: input Type = "tent"
   anduaid: tenesize = " 20 p" />
< Tentview
   anderaid: layout_nidth = " werap_content"
   anduaid: layout_night="muap_content"
anduaid: layout_x = "20 ap"
    anausid: layout y = "210 ap"
    andusid: tent = " Enter Marks: "
    anduaid: tentsize = "20 cp" />
< Eau Tent
    anduaid: id = " @ +id / March"
    anduoid: layout_width = "150 ap"
   anduaid: layout_height = " weap_content"
   anduaid: bayont_x = "175ap"
    anduaid: tayant-y="200 ap"
   anduaid: inputType = "number"
    anduaid: tent lize = " 30 sp" 1)
& Button
    anduaid: id = "@+id/Insut"
    arduaid: layout_width = " 150 ap"
```

```
anduaid: layout_height = "weap_content"
anduaid: layout_x = "25dp"
   anduaid: layout-y="300 dp"
anduaid: tent="Insut"
   anderaid: tentilize = " 30 ap" />
(Buton
   anduaid: id = " @+id/Dute"
   anduaid: layout_miatr ="150 ap"
   anduaid: layout_re="weap_content"
anduaid: layout_re="200 ap"
   anduaid: layout_y="300 ap"
anduaid: tent = "Delete"
    anduaid: tent eize = " so ap" />
< Button
    arduaid: id = "@+id/Update"
    anauaid: layout_miath =" 150 ap"
    anduaid: layout_hight = "nurap_content"
   anduaid: layant_x = "25ap"
anduaid: layant_y = "400 ap"
   arauaid: tent = "Update"
    anduaid: tent size = "30 ap" 1>
< Button
    anduaid: id = " @ +id / View"
   andusid: layout_midth = "150 ap"
  anduaid: layout_neight = "weap_content"

anduaid: layout_x = "200 ap"

anduaid: layout_y = "400 ap"

anduaid: tent = "View"
    anduaid: tent size = "30 ap" />
< Button
    anduaid: id = "Q+id/ViewAll"
```

```
andreaid: layout_wiath = " 200 dp"
    anduaid : layout - hight - " musp_cantent"
    anduaid: layout_x = "100 ap"
    anausid: layout - y = " 500 ap"
     arduaid: tent = "View All"
     andusid: text lize = "30 ap" />
</Abrabutelayout>
Java Code: - (Main Activity. java)
package cam enample tout;
inposet anausid app. Activity
infant anducid. app. Alut Dialog. Builden
Impaul andusid. content. Content;
inspact anduaid. database. Curran;
impact anducid database sqlite. Sqlitebatabase;
in part andusid, as-Burdle;
impaut anduaid. view. View;
impaut anduaid. view. View. Onclub luteneu;
Impart anduaid. widget. Button.
impaut andusid widget tautent;
quelic class Mainterivity entends Applament Activity implements
   EditTent Rallio, Name, Maribs;
   Button Insut, Delete, Update, View, ViewAll;
   Squite Database db;
   @ Override
   public void oncevate (Burdle Laved Instance Chate)
      suger onlineate (soved Instance State).
     set Content View (R. Layout activity main);
      Rallino = (EditTent) find View By Id (R. id. Rallino);
```

```
Name = (FattTent) find View By Id (R.id. Name);
    Marles = (Fair Tent) find View By Id (R.id. Marks);
    Insut = (Button) find Viewby Id (R. id . Insut);
    Update = (Button) find View By Id (R.id. Update);
    Delete = (Button) find View By Id (R. id. Relete);
    View = (Button) find View By Id (R. id. View);
    ViewAll = (Button) find view By Id (R.id. VienAll);
    Insent. Set Onlick historica (this)
    Update. Won Click histonen (this);
    Delete Seton Click historiea (this).
    View setonelicklistonea (this);
    ViewAll. scronclerk testencer (this);
    I weating database and the table
    db = opendo Cereate Database ("Student DB", Content. MODE_PRIVATE
                                                   nuu)
    db. enecsql (create TABLE IF NOT EXISTS student (round
       VARCHAR, name VARCHAR, mandes VARCHAR); ")
public vaid onclick (View v)
  Il insulting a record to the student table
   if (v == Drunt) }
     " check four employ fields
      rouno = Rauno, get Tent(), to String(), trim();
mauke = Maules, get Tent(), to String (), trim();
       name = Name. getTent(). to Living (). trinc();
      y (rouno, length)==0 | name, length()==0 | maules, length()==0) }
       Show Mersage ("Error", "Please enter all values")
         return.
      db. exectel ("INLERT INTO student VALUES (" + round + ", " +
```

```
name + "', " + marks + "'); ");
     show Mursage ("Success", "Record added");
     clean Tent is
" deleting a record ferom the student table

y (view = = Delete) {
    String round = Round. getTent(). to String (). trim()
    I check for empty row number
    y (rouna, length () = = a) {
     show Musage ( Error, "Please enter Rallno):
      return
    Course c = db. rangueny ("SELECT * FROM Windent WHERE rollno = " + rollno + " 1;", null);
    y (c. move To Fuint ())
       db. exectat DELETE FROM Litudent WHERE voluno =
         + rouna + "; ):
      showMurage ("Rucus", "Ruand Deleted");
      showMusage (Error, "Invalid Rolling)
    cleantent();
I updating a record in the trader table
y (view == Update) }
   String rollno, marks, name;
   round = Rauno, getTerrol), to string (). tring)
   name = Name, getTent(), to steing (). to unic).
   marks = Marks. getTent(). to String (). toin().
```

```
if (round length 1) = = 0) {
     thowMersage ("Froor", "Please enter vollno);
     relitur.
   Curron C = db. rawquery ( SFLECT * FROM student WHERE
      rouno = ' + rouno + "
   y (c. moveToFuixter)
      ob. excelal ( UPDATE student SET name = " + name +
        marks = ' + marks + ' WHERE rouno = ' + rouno
      thow Mersage ( Curers", "Revoud Modified");
   else
      ShowMersage (Error, "Invalid Raleno")
   cleautentes
Il display a record from the Undert stable
if (view = = View)
  String round = Rallno, getTent(). to Ctuing (). trim():
   I check four empty soul no
   if (round. length () ==0) {
     chaw Message (Error", "Please enteu valla)
     return:
   Churan c = ab. rawquery ( SELECT * FROM student WHERE
     rouna = ' + rouna + "; (1) }, nuu);
   y (c. moveToFuist()) }
     Name-setTent (c. gersetting (1))
     Marks. sutTent (c. gutstering (2))
```

```
else
         showmusage ( Error" "Invalid Rolling);
       clean Tent ()
  I displaying all records
  y (view = = View All) }
     course c = ab. rowgrung (SFLECT * FROM etudent, new);
     y (c. getcount() = = 0) }
        show Musage ( Error", " No records found");
     String Bryfen bryfen = new String Bryfen();
     while (c. move To Nenter) {

buffer append ("Rauno:", c. get string(0) + "\n");

buffer append ("Name:", c. get string(1) + "\n");

buffer append ("Marks:", c. get string(2) + "\n")
    showMusage ( luciers, buffer to (tuing());
public vaid showMessage (Stuing title, Stuing message) {
  Buiden builder = new Builder (this);
  builder. Set cancelable (true);
  buiden. et Tite (titte);
  builden set Message (message);
  builder. Chower;
public void cleantent () {
   Railno. setTenel""); Name. setTent();
  Maries. retTent (""); Rollno, requestFocus()
```

Conclusion: By ithis trumwork, we undustrad the use of absolute layout, Equita Database and Curren class you database operation.
Reference:- Andreaid Studio 3.5 Development Eventials, Java edition, 2019 Neil Smyth / Payload Media Inc.