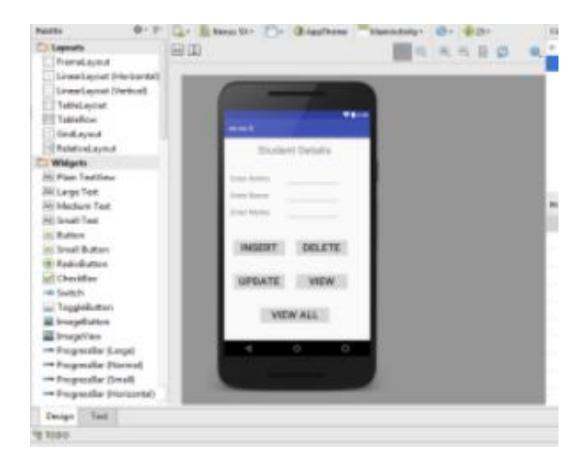
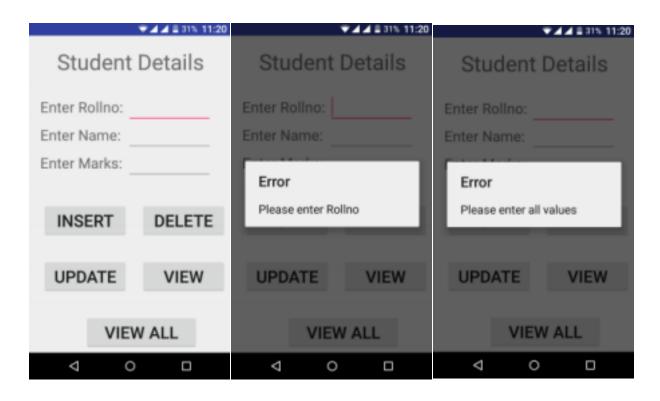
Experiment: 02

Aim: Develop an application that uses database.

Theory:

- 1) Open android studio and select new android project
- 2) Give project name and select next
- 3) Choose the android version. Choose the lowest android version and select next
- 4) Enter the package name. package name must be two word separated by comma and click finish
- 5) Go to package explorer in the left-hand side. select our project.
- 6) Go to res folder and select layout.





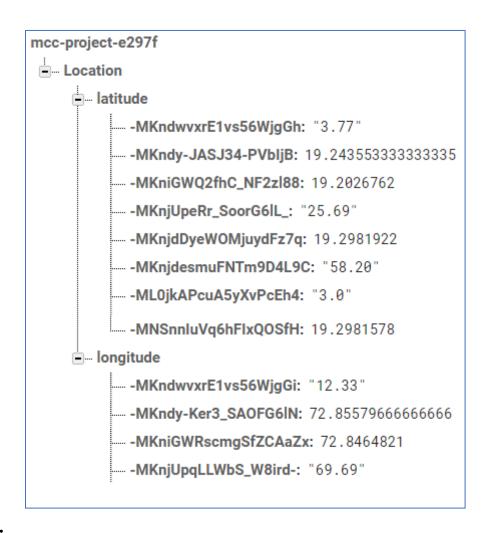
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Implementation:

```
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
public class MapsActivity extends FragmentActivity implements
OnMapReadyCallback {
// Creating objects
  private DatabaseReference databaseReference;
 // Creating Database Reference
    databaseReference =
FirebaseDatabase.getInstance().getReference("Location");
  public void updateButtonOnCLick(View view) {
   # Write operation
databaseReference.child("latitude").push().setValue(editTextLatitude.getText().toS
tring());
databaseReference.child("longitude").push().setValue(editTextLongitude.getText()
.toString());
# Read operation
String databaseLatituteString =
snapshot.child("latitude").getValue().toString().substring(1,snapshot.child("latitude")
").getValue().toString().length() -1);
String databaseLongituteString =
snapshot.child("longitude").getValue().toString().substring(1,snapshot.child("longi
tude").getValue().toString().length() -1);
  }
```

}

Output:



Conclusion:

From this experiment, we learnt how to connect a database with an android application. We used Google Firebase- Realtime database which saves data in json format, tree like structure. When the user presses a button to call his last location, the read operation takes place, which reads, the last value from the database. When the user travels to a location, their current value is written to the database.