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**Introduction:**

- This exercise is get to know about android layouts like relative, linear etc. and also to know about different intent styles like spinner, check boxes etc.

**Programming Tools:**

- Android Studio
- Android Emulator

**Objective:**

- The main objective of this ICP is to design Food Ordering Application and get the details through mail using android studio.
- It has two activities.
  1. Main Activity
  2. Order Activity
- Coming to the main activity It has different types of coffee flavors along with the prices. And When user select their list it has two buttons one for summary and another one for order.
- The code snippets for main activity is given below.

```

18
19
20 public class MainActivity extends AppCompatActivity implements AdapterView.OnItemClickListener {
21     private static final String MAIN_ACTIVITY_TAG = "MainActivity";
22     final int COFFEE_PRICE = 5;
23     final int WHIPPED_CREAM_PRICE = 1;
24     final int CHOCOLATE_PRICE = 2;
25     final int HAZZLENUIT_PRICE = 3;
26     final int SPICES_PRICE = 4;
27     int quantity = 0;
28     String location = "";
29
30     @Override
31     protected void onCreate(Bundle savedInstanceState) {
32         super.onCreate(savedInstanceState);
33         setContentView(R.layout.activity_main);
34
35         Button Order = (Button) findViewById(R.id.order);
36         Order.setOnClickListener((view) -> { submitOrder(view); });
37         Button Summary = (Button) findViewById(R.id.summary);
38         Summary.setOnClickListener((view) -> { sendSummary(view); });
39         Spinner spinner = findViewById(R.id.Location);
40         ArrayAdapter<CharSequence> adapter = ArrayAdapter.createFromResource(context, R.array.location, android.R.layout.simple_spinner_item);
41         adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
42         spinner.setAdapter(adapter);
43         spinner.setOnItemSelectedListener(this);
44     }
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```

```

public void submitOrder(View view) {

    // get user input
    EditText userInputNameView = (EditText) findViewById(R.id.user_input);
    final String userInputName = userInputNameView.getText().toString();

    // check if whipped cream is selected
    CheckBox whippedCream = (CheckBox) findViewById(R.id.whipped_cream_checked);
    boolean hasWhippedCream = whippedCream.isChecked();

    // check if chocolate is selected
    CheckBox chocolate = (CheckBox) findViewById(R.id.chocolate_checked);
    boolean hasChocolate = chocolate.isChecked();

    CheckBox spices = (CheckBox) findViewById(R.id.mixed_spices);
    boolean has_spices = spices.isChecked();

    CheckBox hazzlenut = (CheckBox) findViewById(R.id.hazzlenut);
    boolean has_hazzlenut = hazzlenut.isChecked();

    // calculate and store the total price
    float totalPrice = calculatePrice(hasWhippedCream, hasChocolate, has_spices, has_hazzlenut);

    // create and store the order summary
    final String orderSummaryMessage = createOrderSummary(userInputName, hasWhippedCream, has_hazzlenut, has_spices, hasChocolate, totalPrice);
    sendEmail(userInputName, orderSummaryMessage);
    // Write the relevant code for making the buttons work(i.e implement the implicit and explicit intents

}

public void sendSummary(View view){
    EditText userInputNameView = (EditText) findViewById(R.id.user_input);
    final String userInputName = userInputNameView.getText().toString();

    // check if whipped cream is selected
    CheckBox whippedCream = (CheckBox) findViewById(R.id.whipped_cream_checked);
    boolean hasWhippedCream = whippedCream.isChecked();

    // check if chocolate is selected
    CheckBox chocolate = (CheckBox) findViewById(R.id.chocolate_checked);
    boolean hasChocolate = chocolate.isChecked();

    CheckBox spices = (CheckBox) findViewById(R.id.mixed_spices);
    boolean has_spices = spices.isChecked();

    CheckBox hazzlenut = (CheckBox) findViewById(R.id.hazzlenut);
    boolean has_hazzlenut = hazzlenut.isChecked();

    // calculate and store the total price
    float totalPrice = calculatePrice(hasWhippedCream, hasChocolate, has_spices, has_hazzlenut);

    // create and store the order summary
    final String orderSummaryMessage = createOrderSummary(userInputName, hasWhippedCream, has_hazzlenut, has_spices, hasChocolate, totalPrice);
    Intent intent = new Intent( packageContext: MainActivity.this, Summary.class);
    intent.putExtra( name: "NAME", userInputName);
    intent.putExtra( name: "SUMMARY", orderSummaryMessage);
    startActivity(intent);
}

```

```

public void sendEmail(String name, String output) {
    // Write the relevant code for triggering email
    String recipientList = "lakshmanakumarmettu@gmail.com";

    String subject = name+" 's" + " Coffee Order";
    // Hint to accomplish the task

    /* Intent intent = new Intent(Intent.ACTION_VIEW);
    if (intent.resolveActivity(getPackageManager()) != null){
        startActivity(intent);
    }*/

    Intent intent = new Intent(Intent.ACTION_SEND);
    intent.putExtra(Intent.EXTRA_EMAIL, recipientList);
    intent.putExtra(Intent.EXTRA_SUBJECT, subject);
    intent.putExtra(Intent.EXTRA_TEXT, output);

    intent.setType("message/rfc822");
    startActivity(Intent.createChooser(intent, "Choose Email Client"));
}

private String boolToString(boolean bool) {
    return bool ? "Yes" : "No";
}

private String createOrderSummary(String userInputName, boolean hasWhippedCream, boolean hasHazzlenut, boolean hasSpices, boolean hasChocolate, float price) {
    String orderSummaryMessage = "Dear " + userInputName + "\n" + " Thank You for the Order," + "\n" + "You Have Selected these items"+
        "Add Whipped Cream? (yes)" + "\n" +
        "Add chocolate? (yes)" + "\n" +
        "Add Whipped Cream? (yes)" + "\n" +
        "Add chocolate? (yes)" + "\n" +
        "Quantity: (2)" + "\n" +
        "Location Selected: "+location+"\n"+
        "Total: $ (10)" + "\n" +
        "Thank you!"+"\n\n"+" Note: Coffee=5$, whipped cream =1$, chocolate = 2$, hazzlenut = 3$, mixed spices=4$";
}

private void display(int number) {
    TextView quantityTextView = (TextView) findViewById(R.id.quantity_text_view);
    quantityTextView.setText("" + number);
}

/**
 * This method increments the quantity of coffee cups by one
 *
 * @param view on passes the view that we are working with to the method
 */

public void increment(View view) {
    if (quantity < 100) {
        quantity = quantity + 1;
        display(quantity);
    } else {
        Log.i( tag: "MainActivity", msg: "Please select less than one hundred cups of coffee");
        Context context = getApplicationContext();
        String lowerLimitToast = "Please select less than one hundred cups of coffee";
        int duration = Toast.LENGTH_SHORT;
        Toast toast = Toast.makeText(context, lowerLimitToast, duration);
        toast.show();
        return;
    }
}

```

- The main activity has spinner to show the location, check boxes to select flavor, Buttons to get order and to show summary and increment and decrement buttons for number of items which are shown in above code snippets.

- When user completes the order, it will redirect to order page and has the mail approvals to send mail about order details.
- Corresponding code snippets shown below.

```
package com.example.foodorderingapp;

import ...

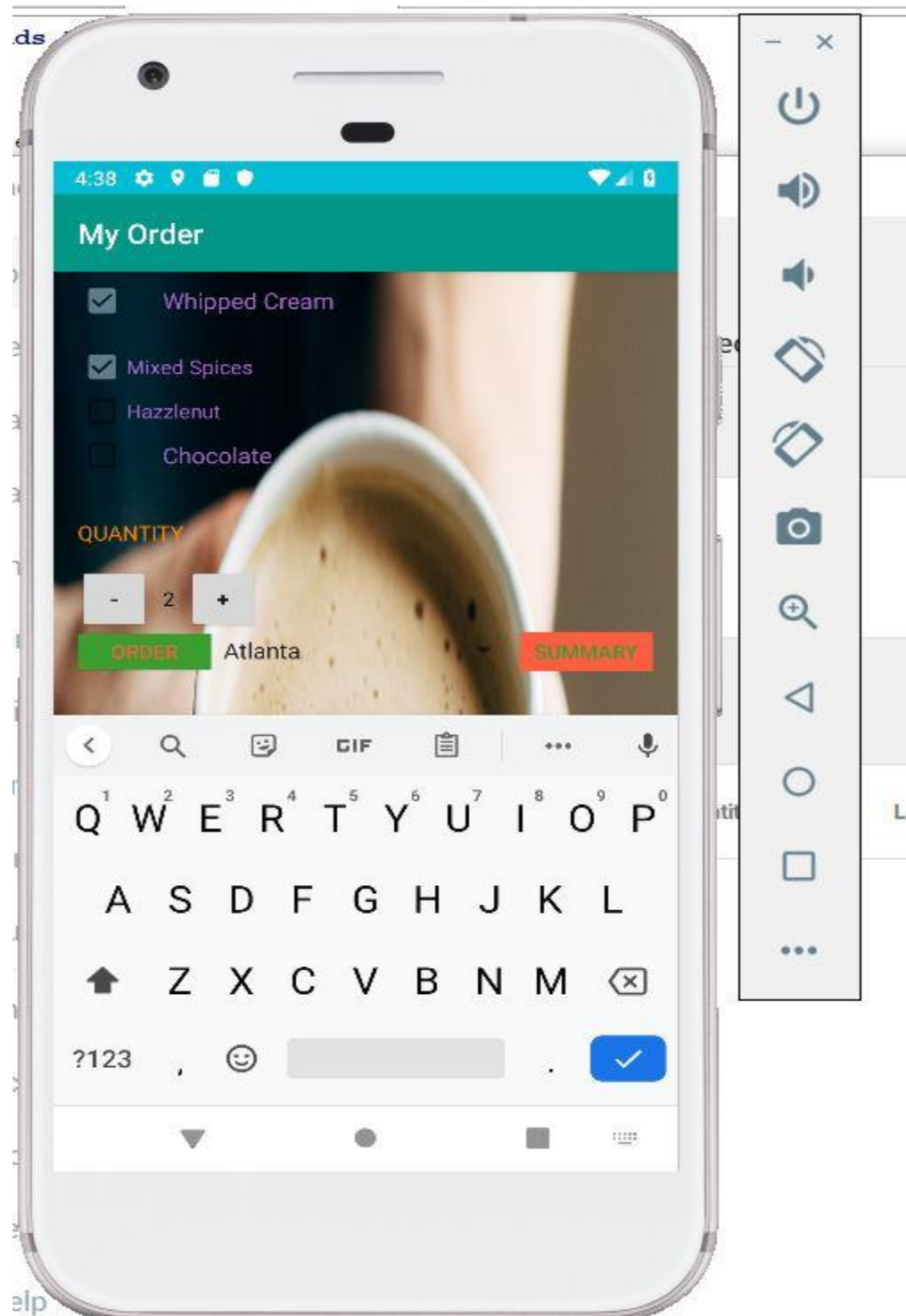
public class Order extends AppCompatActivity {

    public String total;
    public String orderedItems;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_order);
        total = getIntent().getStringExtra("total");
        orderedItems = getIntent().getStringExtra("orderedItems");
        TextView lblOrderSummary = findViewById(R.id.lblOrderSummary);
        lblOrderSummary .setText("Total : "+total+ "\n\n Ordered Items : \n"+orderedItems );
    }

    public void pay(View view) {
        Intent emailIntent = new Intent(Intent.ACTION_SEND);
        // The intent does not have a URI, so declare the "text/plain" MIME type
        emailIntent.setType("plain/text");
        // Recipients
        emailIntent.putExtra(Intent.EXTRA_EMAIL, new String[] { "lakshmanakumarmettu@gmail.com" });
        // Adding Subject
        emailIntent.putExtra(Intent.EXTRA_SUBJECT, "Final Order Summary");
        // Adding the Order Summary Text
        emailIntent.putExtra(Intent.EXTRA_TEXT, "Total : "+total+ "\n\n Ordered Items : \n"+orderedItems);
        // Redirecting to Email Intent
        startActivity(Intent.createChooser(emailIntent, ""));
    }
}
```

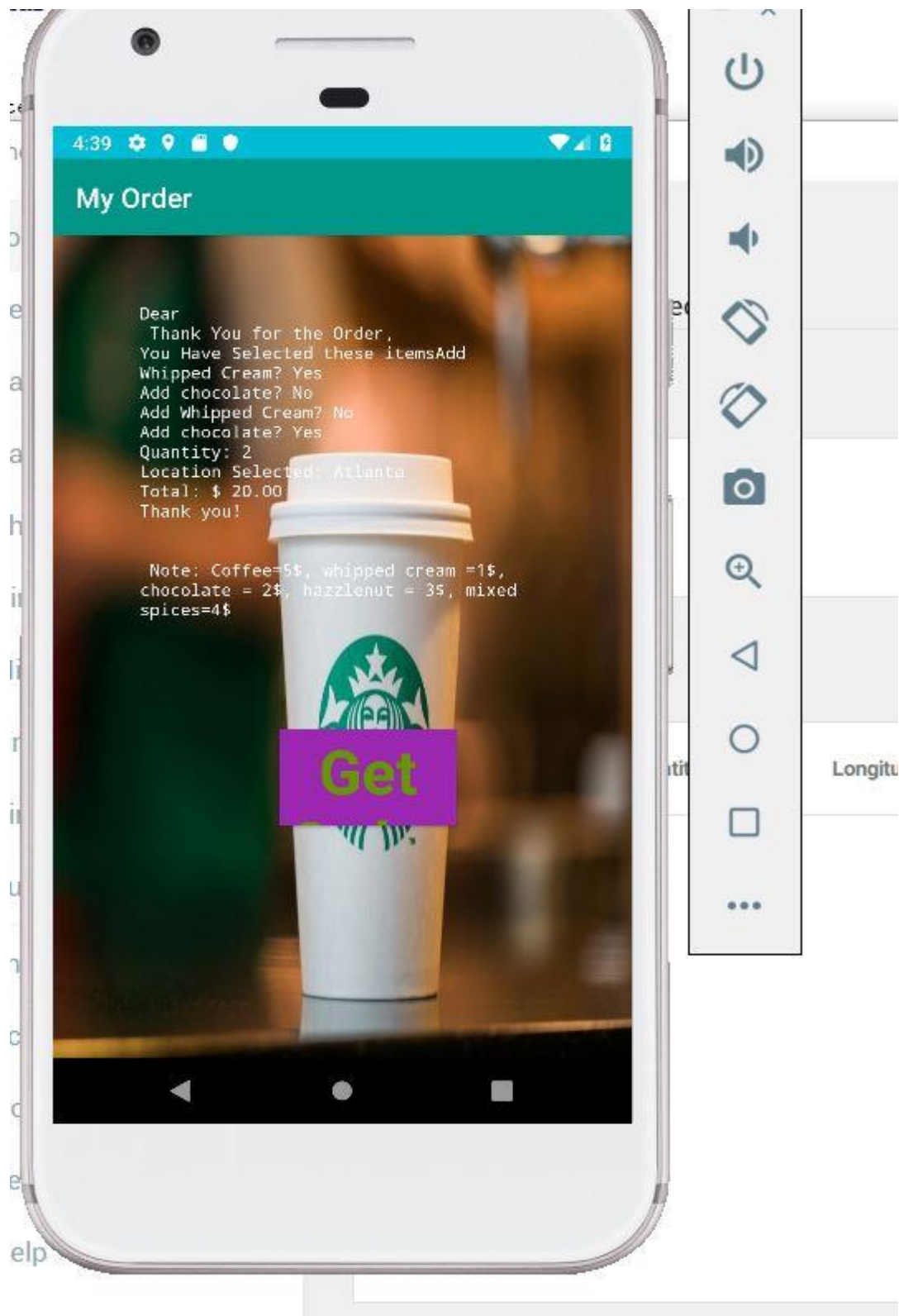
## Output:

- I created an emulator in my laptop, build and run successfully.
- Corresponding outputs are given below.

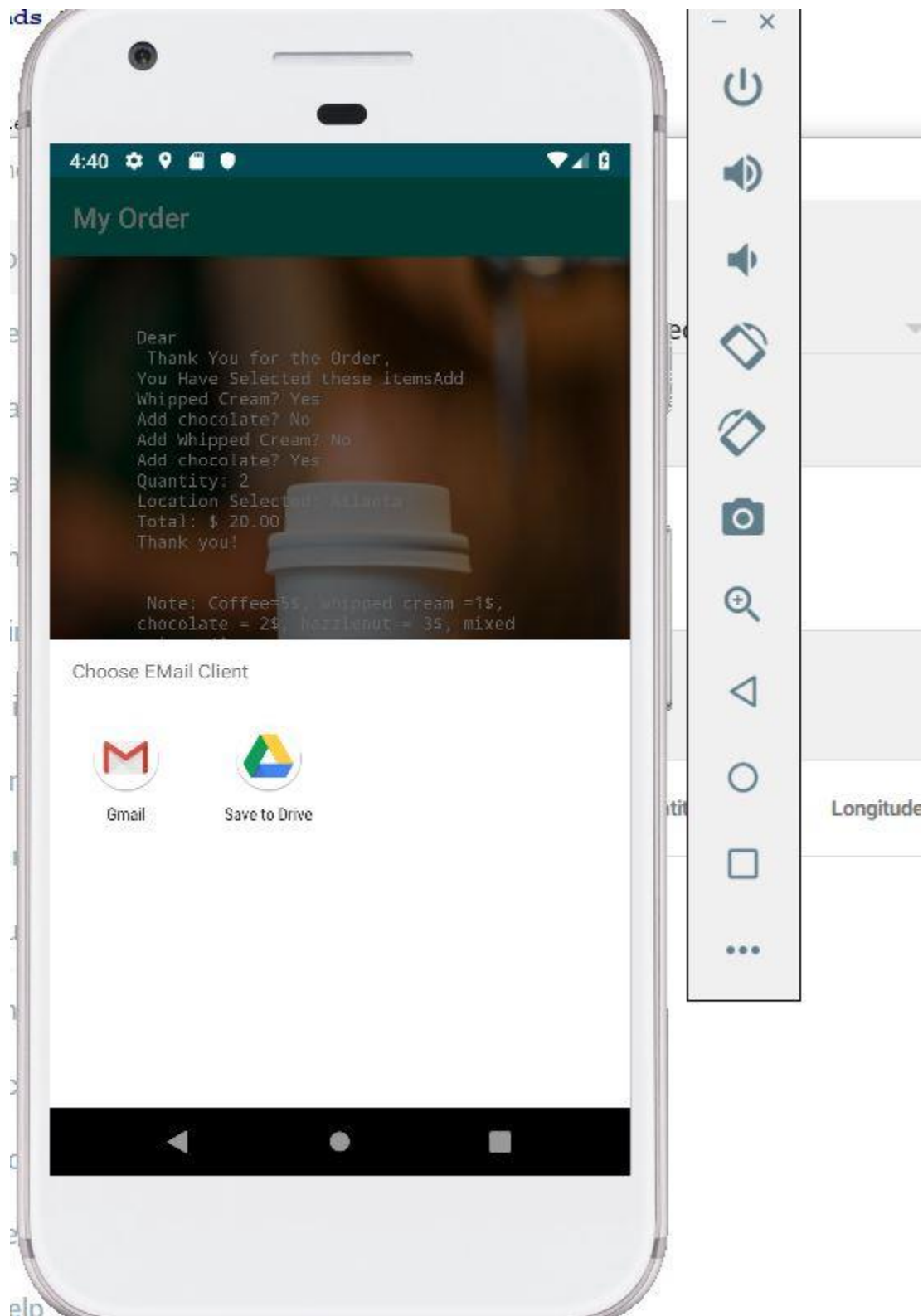




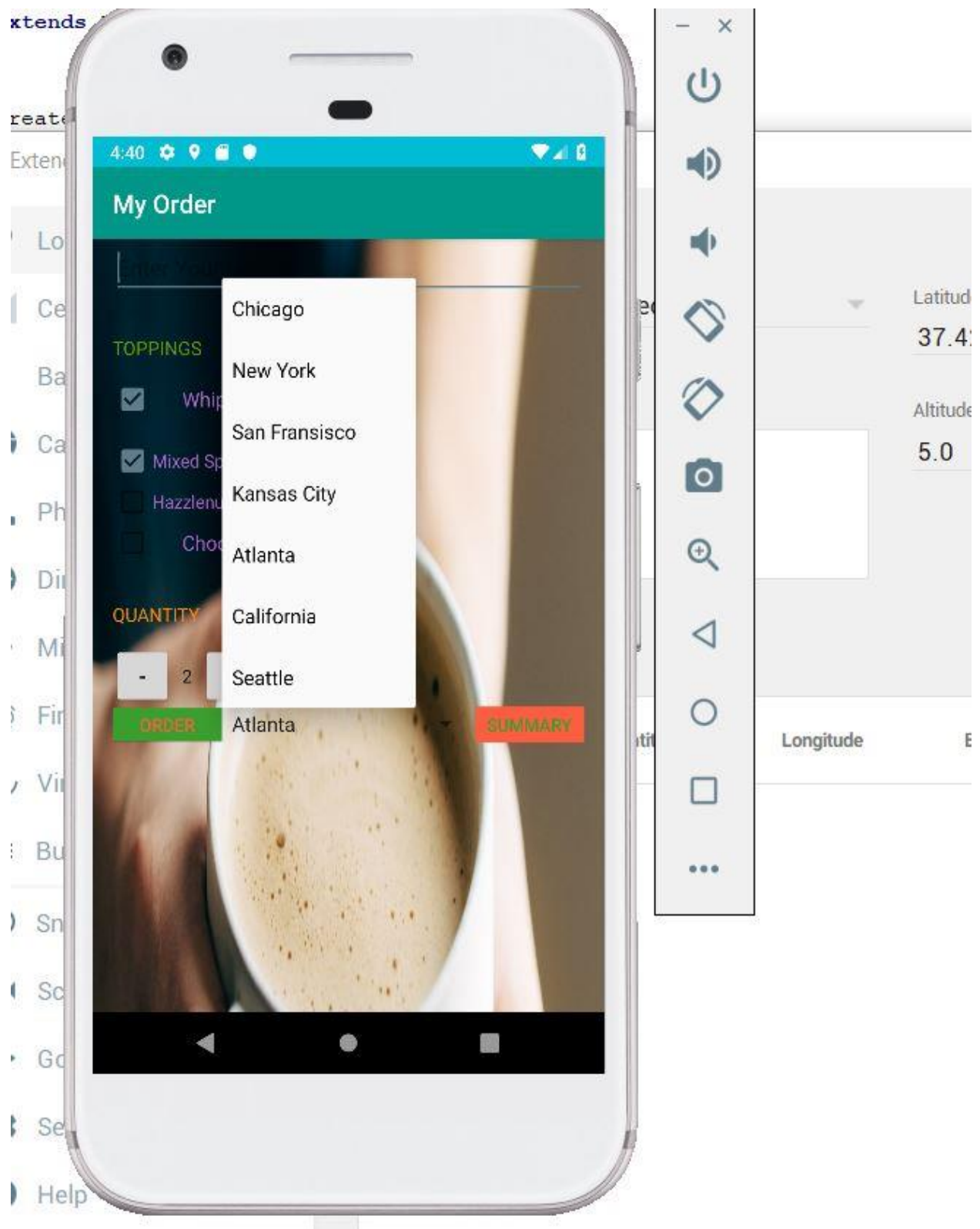
- Summary Page which is showing the order details and get button to place the order.



- When you click on order button it will redirect to mail.

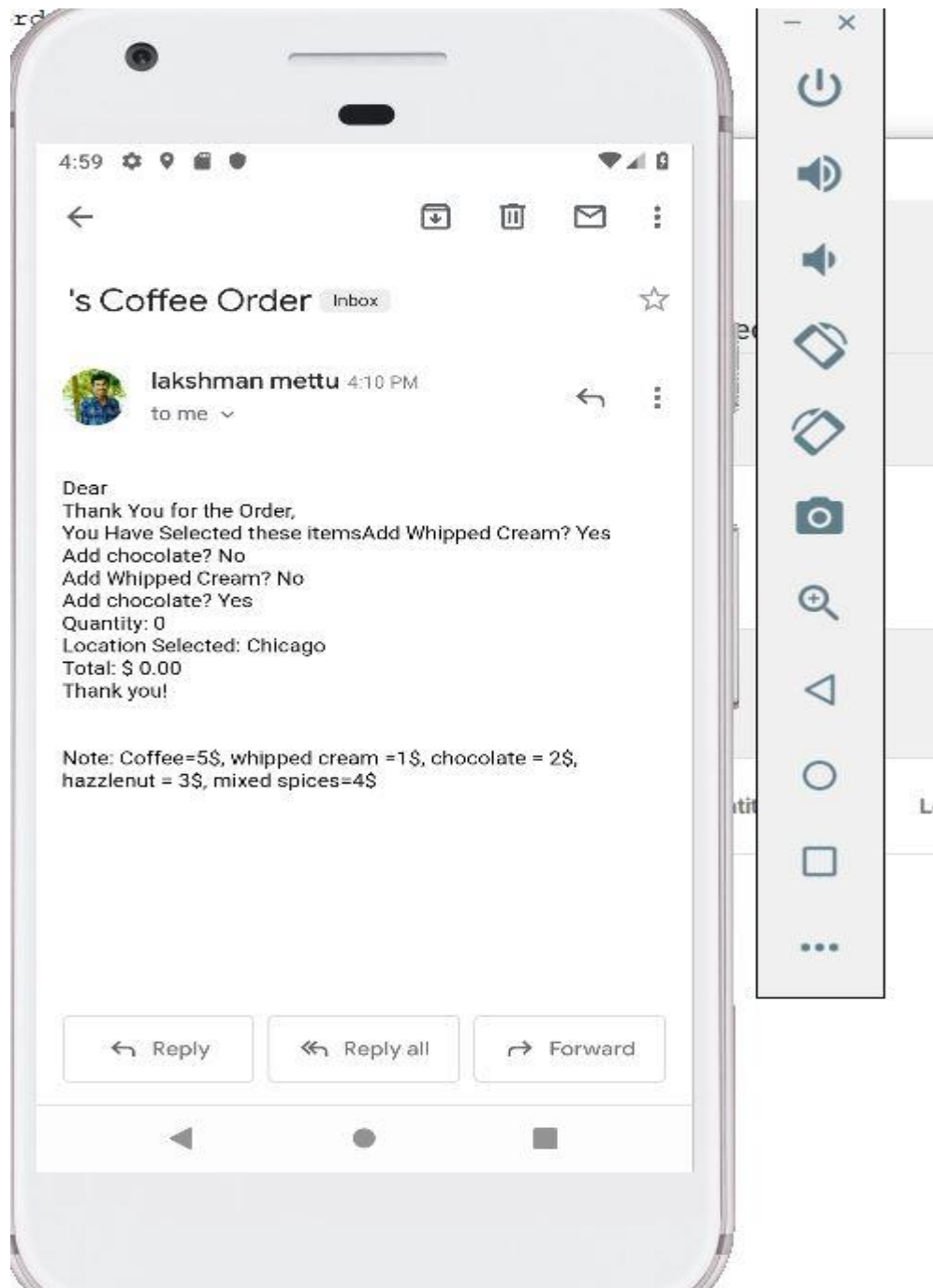


- Different type of buttons and spinner shown below.





- When you give mail-id then order knock you through mail.



## Conclusion:

- Hence learnt about how to create simple any food ordering app using android and linking with the mail to get alerts.