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### **Introduction:**

- To introduce about android calendar elements and using those elements in the given projects

### **Programming Elements:**

- Android Studio
- Google-android calendar

### **Objective:**

- The main objective of this ICP is to create Calendar application in android device
- Create an event using this calendar
- Display the Event
- Providing mail to the guest about event details

### **Workflow-Approaches:**

- It has two activities
  1. Calendar Activity
  2. Main Activity
- Calendar activity is used to create calendar using calendar elements in android
- Usually it displays the current date when you open
- User will create an event on any date by clicking on the create event
- After selecting dates for any event, the page will navigate to main activity



- Main activity has button to display the event and it has guest mail ID to send mail about event details.
- User can strike the event if he is not having interest to go to the event.
- Corresponding code snippets for Calendar Activity and Main activity are given below.
- Generated APK file

- Calendar Activity

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_calendar);

    Button butinsert = (Button) findViewById(R.id.createEvent);
    butinsert.setOnClickListener((v) -> { insert(); });

    // Fetching View by Id's
    simpleCalendarView = (CalendarView) findViewById(R.id.simpleCalendarView);
    dateView = (TextView) findViewById(R.id.dateView);

    // Showing Current Date First on Page Load
    SimpleDateFormat sdf = new SimpleDateFormat( pattern: "dd/MM/yyyy");
    String selectedDate = sdf.format(new Date(simpleCalendarView.getDate()));
    // Setting to text view
    dateView.setText("Date: "+selectedDate);

    // On Change of Date
    simpleCalendarView.setOnDateChangeListener((view, year, month, dayOfMonth) -> {
        // Setting TextView by Day, month, year
        dateView.setText("Date: "+dayOfMonth+"/"+month+"/"+year);
        monthString = month;
        yearString = year;
        dayString = dayOfMonth;
    });
}
```



- Guest Details and date format

```
public void insert() {
    Intent intent = new Intent(Intent.ACTION_INSERT,
        CalendarContract.Events.CONTENT_URI);
    // Add the calendar event details
    intent.putExtra(CalendarContract.Events.TITLE, value: "Scrum Meeting");
    intent.putExtra(CalendarContract.Events.DESRIPTION,
        value: "Learn Web & Mobile Programming");
    intent.putExtra(CalendarContract.Events.EVENT_LOCATION,
        value: "UMKC.com");
    Calendar startTime = Calendar.getInstance();

    // Set the Start time of Calendar
    Calendar startDate = Calendar.getInstance();
    startDate.set(Calendar.MONTH, monthString);
    startDate.set(Calendar.YEAR, yearString);
    startDate.set(Calendar.DAY_OF_MONTH, dayString);
    startDate.set(Calendar.HOUR_OF_DAY, 14);
    startDate.set(Calendar.MINUTE, 0);

    // Set the end time of calendar
    Calendar endDate = Calendar.getInstance();
    endDate.set(Calendar.MONTH, monthString);
    endDate.set(Calendar.YEAR, yearString);
    endDate.set(Calendar.DAY_OF_MONTH, dayString);
    endDate.set(Calendar.HOUR_OF_DAY, 17);
    endDate.set(Calendar.MINUTE, 0);

    startTime.set(yearString, monthString, dayString);
    intent.putExtra(CalendarContract.EXTRA_EVENT_BEGIN_TIME,
        startDate.getTimeInMillis());
    //intent.putExtra(CalendarContract.EXTRA_EVENT_ALL_DAY, true);
    intent.putExtra(CalendarContract.EXTRA_EVENT_END_TIME, endDate.getTimeInMillis());
    intent.putExtra(Intent.EXTRA_EMAIL, value: "lakshmanumarmettu@gmail.com");
}
```

- Main Activity

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    Button disp = (Button) findViewById(R.id.dispbut);
    disp.setOnClickListener((v) -> {
        // TODO Auto-generated method stub
        disp();
    });
}

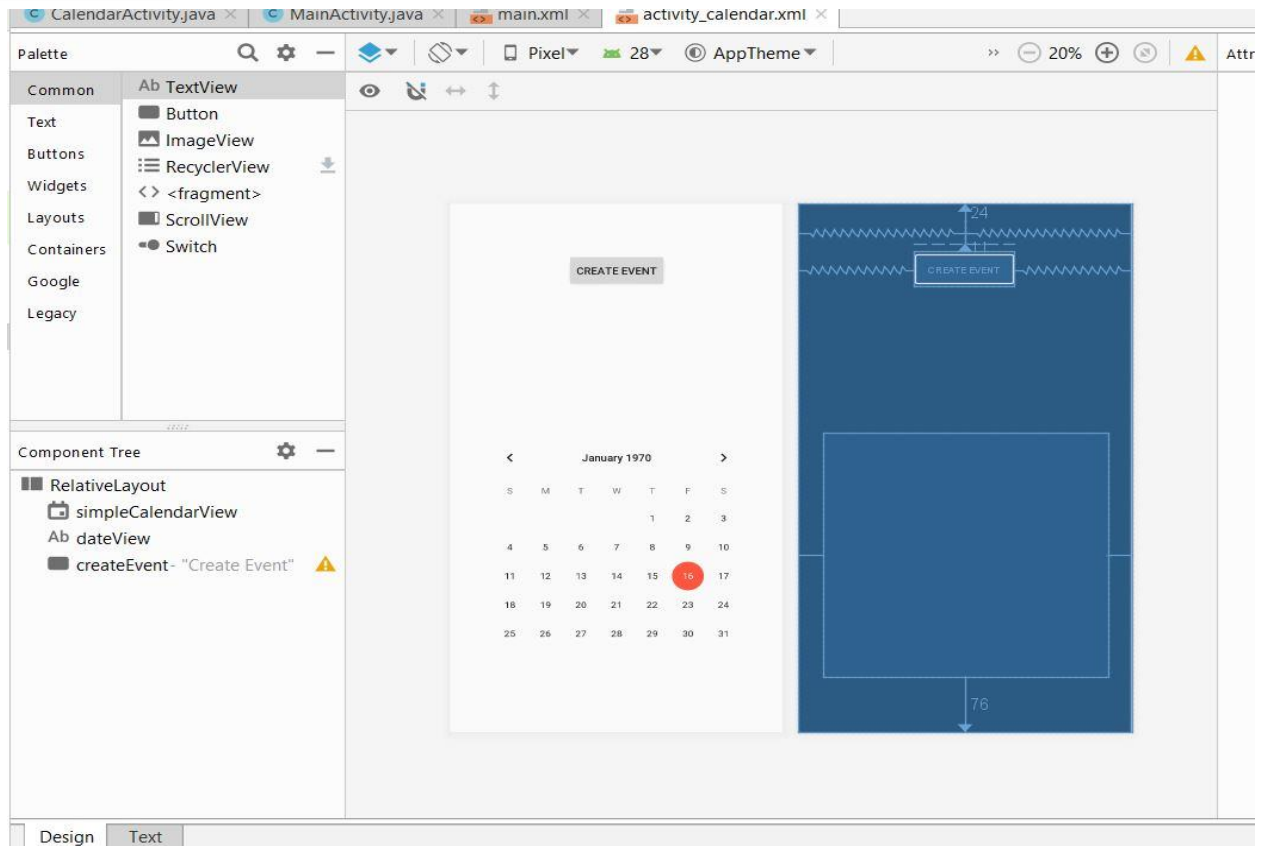
public void disp() {
    Calendar startTime = Calendar.getInstance();
    startTime.set(year: 2013, month: 2, date: 13, hourOfDay: 11, minute: 35);
    Uri uri = Uri.parse("content://com.android.calendar/time/"
        + String.valueOf(startTime.getTimeInMillis()));
    Intent intent = new Intent(Intent.ACTION_VIEW, uri);
    // Use the Calendar app to view the time.
    startActivity(intent);
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}

// On Click of Show Calendar View
public void calendarViewActivity(View view) {
    // Redirecting to new activity
    Intent intent = new Intent(packageContext: MainActivity.this, CalendarActivity.class);
    startActivity(intent);
}
```

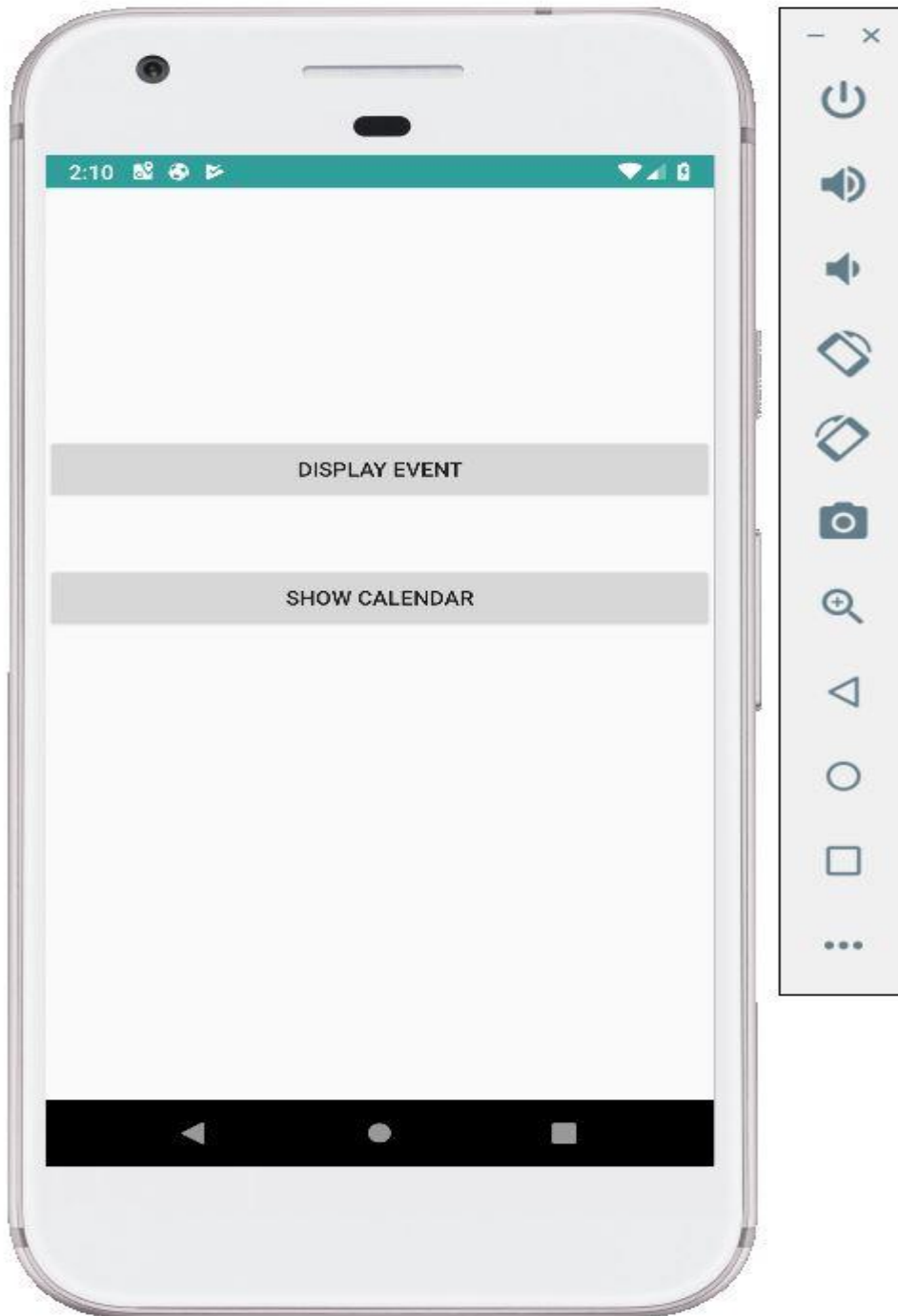


- XML file to show calendar view

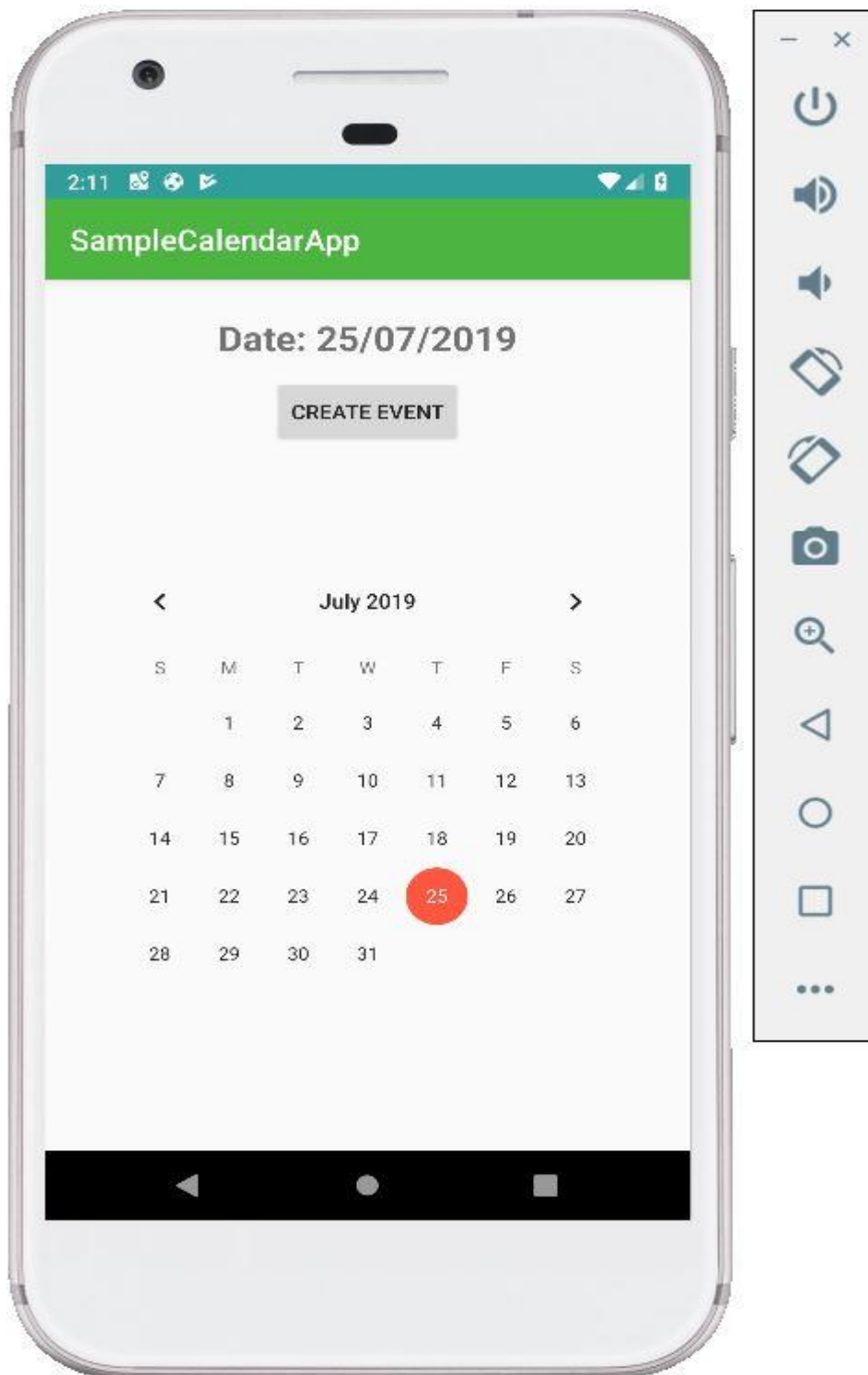


## Output:

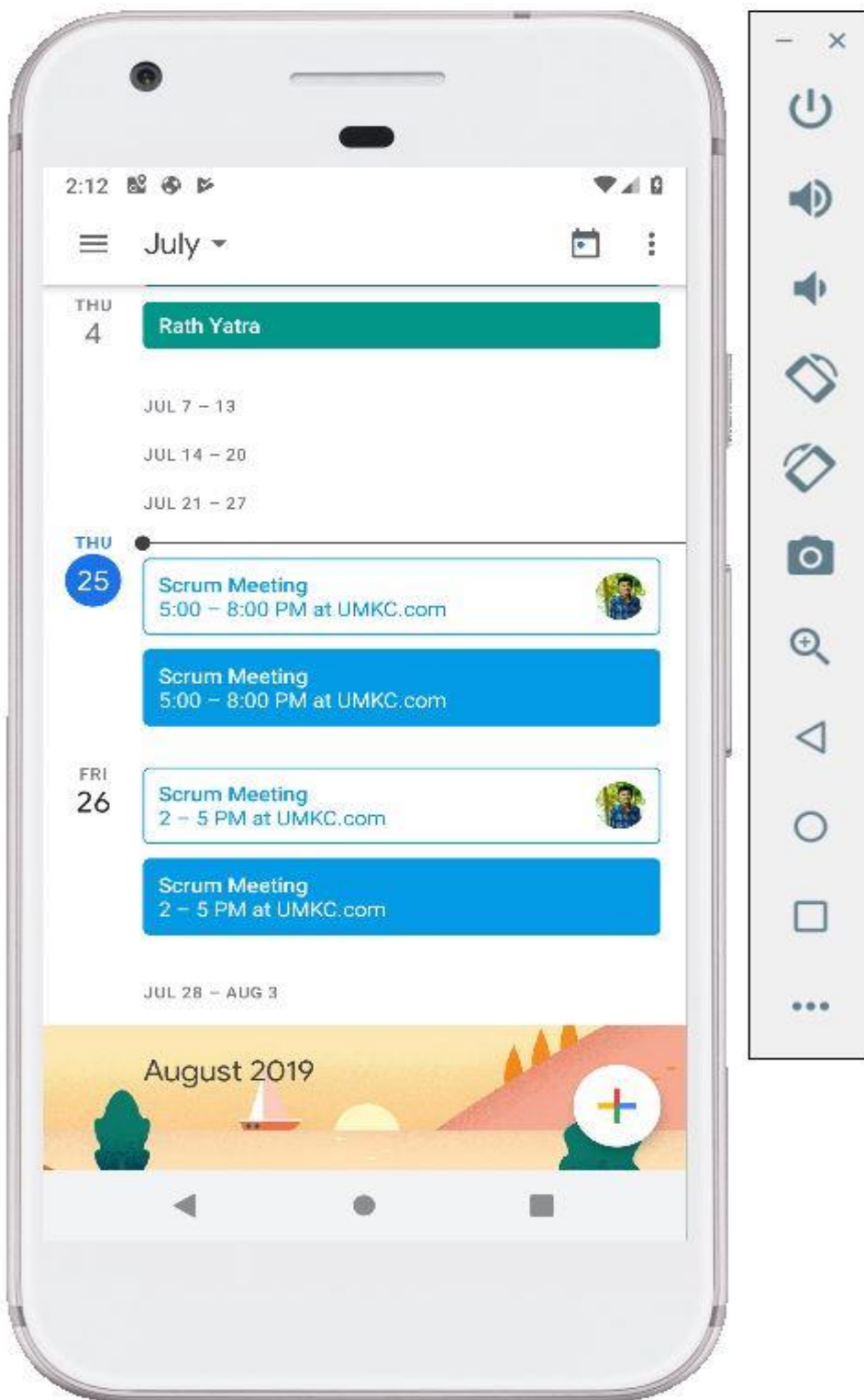
- Welcome page



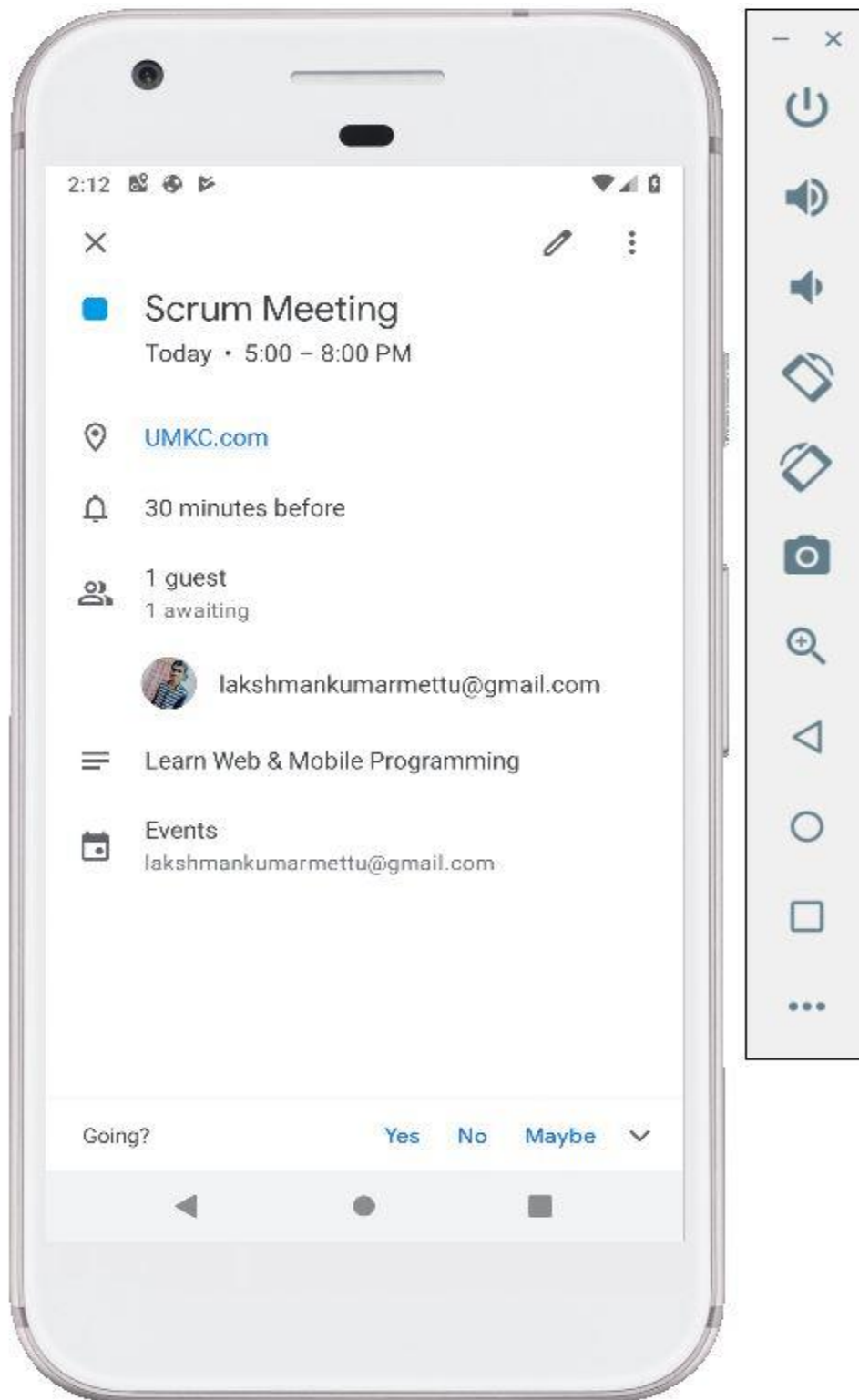
- Calendar showing the current date and having create event button in show calendar page



- Creating an event and showing it in display event page

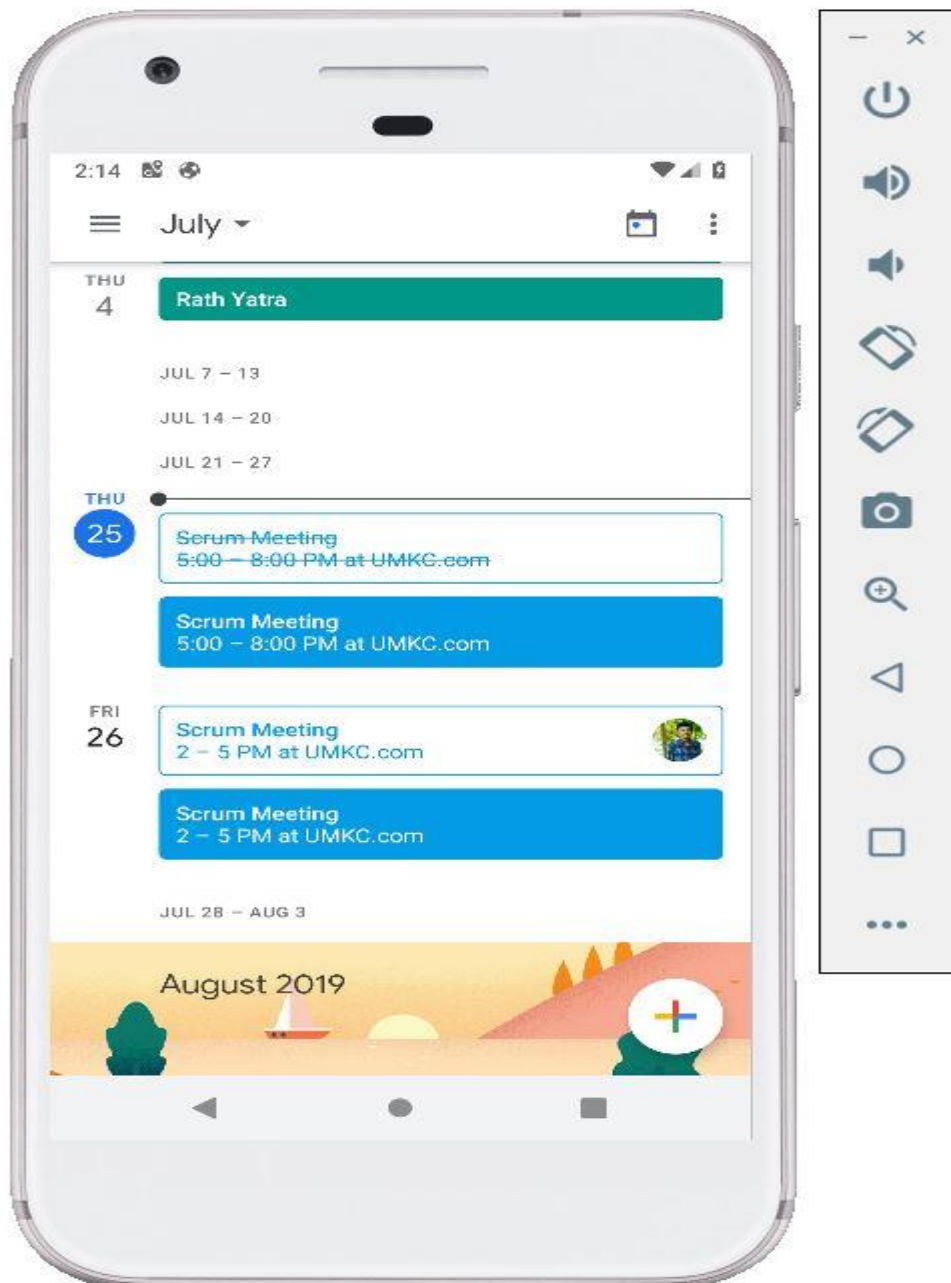


- Showing the images of saved events along with user interests





- If User Interest is not willing to go then event get strikes



## Conclusion:

- Learnt how to create and usage of calendar in android applications for any projects.

