ANDROID CALENDAR

Team-1

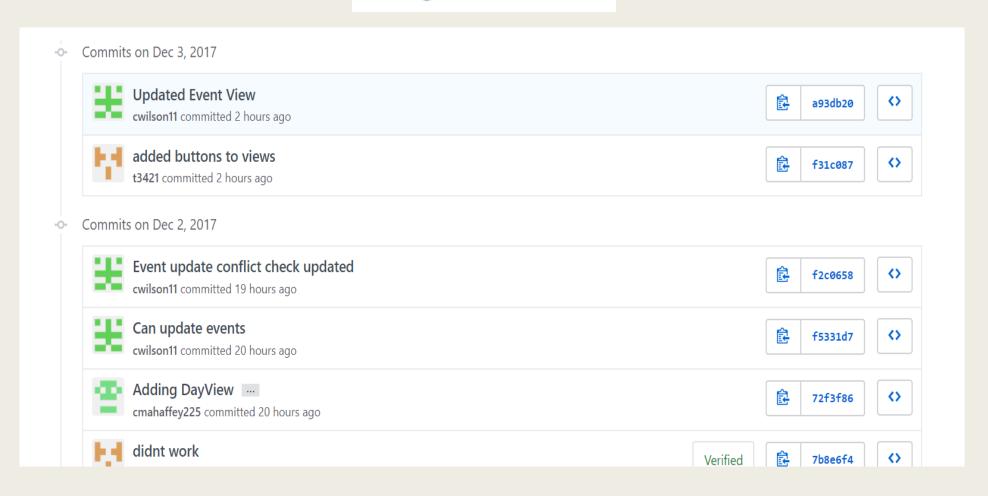
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Project Demo

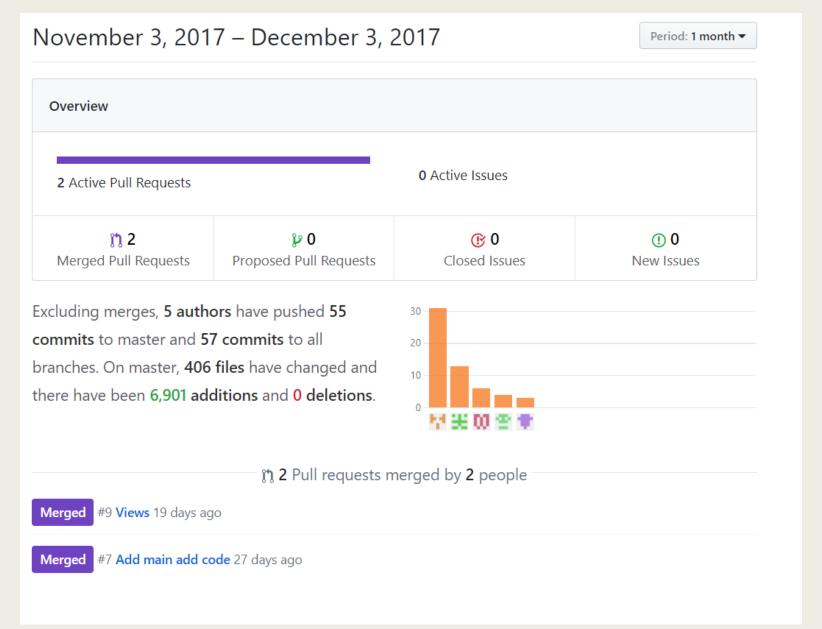
- View events
 - Monthly
 - Daily
 - Agenda
- Add event
 - Single
 - Weekly
 - Monthly
- Edit event
 - Change date
 - Change time
 - Change occurrence
- Delete event

Commits

97 commits



Insight



Team Organization

- Team meetings
 - Meetings occurred after each class for updates
 - Once a month longer meetings pertain to the project
 - Communicated by text or in person
- Task distribution
 - Appointment of task by group discussion and skill level

Coding Style and Comments

Link -

http://www.oracle.com/technetwo rk/java/javase/documentation/co deconvtoc-136057.html

- We tried to stick to the code convention linked above for oracle
- Camel case style
- Comments in code are used on a as needed basis for inside methods
 - Methods should all be commented on for use in Java Docs
 - Statements that need clarification or more guidance
 - Classes should all be commented on for use in Java Docs

```
* Checks for error within the user input such as long comment or title along with missing
 * needed items to add in the event
  Oparam startMinute the start minute must be assigned
 * @param startHour the start hour must be assigned
 * @param endMinute the end minute must be assigned
  @param endHour the end hour must be assigned
  Oparam startDay checking the day is not 0
  @param eventTitle must be checked for for >0 and <64 characters</pre>
  @param eventComments must be checkd for <256 characters</pre>
  Greturn returns true if no errors are found, false is at least one is found
public boolean Noerrors (int startMinute, int startHour, int endMinute, int endHour,
                        int startDay, String eventTitle, String eventComments) {
    if(startMinute == 0 && startHour == 0 || endMinute == 0 && endHour == 0 || startDay == 0 ||
            eventTitle.length() == 0 || eventTitle.length() > 32 || eventComments.length() > 256) {
        StringBuilder errors =new StringBuilder();
        if ( eventComments.length()>256) {errors.append("comment length,");}
                                                                                  //Check comments
        if ( eventTitle.length() == 0 || eventTitle.length()>32) {errors.append
                ("event title length, ");}
                                                                                  //Check blank title
        if ( startMinute == 0 && startHour == 0) {errors.append("start time, ");}//Check start time
        if ( endMinute == 0 && endHour == 0) {errors.append("end time, ");}
                                                                                  //Check end time
        if ( startDay == 0) {errors.append("start Date, ");}
                                                                                  //Check blank date
        Toast.makeText(getBaseContext(), text: " Please correct the error/s " +
                errors, Toast. LENGTH LONG) . show();
                                                                                  //push message
        return false;
    return true;
```

Design Pattern

Singleton Pattern

 Single instance of the database is used by views.

```
public class EventsDb extends SQLiteOpenHelper {
    //Database Instance
    private static EventsDb databaseInstance;

public static EventsDb getInstance(Context context) {
    if(databaseInstance == null)
        databaseInstance = new EventsDb(context);

    return databaseInstance;
}

private EventsDb(Context context ){super(context, DATABASE_NAME,null, DATABASE_VERSION);}
```

```
public class EventView extends AppCompatActivity {
   int startY = 0, startM = 0, startD = 0, startH = 0, startMi = 0, endH = 0, endM = 0, returnToView=0;
   String occurrenceId, eventId, extraId, color;
   private int id = 0;
   private int occurrenceCheck = 0;
   EventsDb db = EventsDb.getInstance(this);
   Event event = new Event();
```

Refactoring

```
R
H
```

Before

```
startnour = data.getIntExtra( selectednour , 0);
         startMinute = data.getIntExtra("selectedMinute", 0);
         boolean isValid = validate(startHour , startMinute , endHour , endMinute);
         if (isValid){
         if (validate(startHour , startMinute , endHour , endMinute)){
              Toast.makeText(getBaseContext(), "hour = " + startHour + " minute = " + startMinute , Toast.LENGTH_LONG).show();
              modifiedStartHour = startHour;
              if ( startHour > 12 ){
                  modifiedStartHour = startHour - 12;
                 ampm = "PM";
             else if (startHour == 0){startHour=+1;}
          // String modifiedStartMinute = String.format("%02d", startMinute);
              ((TextView)findViewById(R.id.start_time_display)).setText(modifiedStartHour + ":" + String.format("%02d" ,startMinu
              (({\sf TextView}) {\sf findViewById}({\sf R.id.start\_time\_display})). {\sf setText}({\sf getTimeString}({\sf startHour}\ ,\ {\sf startMinute}));
         else{
              startHour = transH;
-63,14 +54,7 @@ public void onActivityResult(int requestCode, int resultCode, Intent data) {
         boolean isValid = validate(startHour , startMinute , endHour , endMinute);
         if (isValid){
              Toast.makeText(getBaseContext(), "hour = " + endHour + " minute = " + endMinute , Toast.LENGTH_LONG).show();
             modifiedEndHour = endHour;
              if ( endHour > 12 ){
                 modifiedEndHour = endHour - 12;
             else if (endHour == 0){endHour=+1;}
               String modifiedEndMinute = String.format("%02d", endMinute);
              ((TextView)findViewById(R.id.end time display)).setText(modifiedEndHour + ":" + String.format("%02d", endMinute)
              ((TextView)findViewById(R.id.end_time_display)).setText(getTimeString(endHour, endMinute));
```

```
After
```

Testing

```
import org.junit.Before;
import org.junit.Test;
import static org.junit.Assert.*;
public class AddEventTest {
    private AddEvent tester;
    @Before
    public void setUp() throws Exception {
        tester = new AddEvent();
    public void getDateString() throws Exception {
        assertEquals (expected: "1 January 2017", tester.getDateString(year: 2017, month: 1, day: 1));
        assertEquals (expected: "31 November 2017", tester.getDateString(year: 2017, month: 11, day: 31));
        assertEquals( expected: "" , tester.getDateString( year: 0, month: 1, day: 1));
        assertEquals( expected: "" , tester.getDateString( year: 2017, month: 1, day: 0));
    public void validate() throws Exception {
        assertEquals( expected: true , tester.validate( startH: 0, startM: 0, endH: 12, endM: 30));
        assertEquals (expected: true , tester.validate (startH: 24, startM: 0, endH: 24, endM: 1));
        assertEquals (expected: true , tester.validate(startH: 12, startM: 30, endH: 0, endM: 0));
        assertEquals( expected: false , tester.validate( startH: 12, startM: 0, endH: 11, endM: 1));
    public void getTimeString() throws Exception {
```

```
@Test
public void getTimeString() throws Exception {
    assertEquals (expected: "" , tester.getTimeString( hour: 0, minute: 0));
    assertEquals (expected: "12:00 PM", tester.getTimeString(hour: 12, minute: 0));
    assertEquals (expected: "12:30 AM" , tester.getTimeString(hour: 0, minute: 30));
    assertEquals( expected: "9:01 PM" , tester.getTimeString( hour: 21, minute: 1));
@Test
public void getSpinnerPosition() throws Exception {
    assertEquals( expected: 0 , tester.getSpinnerPosition(color: ""));
    assertEquals( expected: 0 , tester.getSpinnerPosition(color: "Yellow"));
    assertEquals( expected: 1 , tester.getSpinnerPosition(color: "Fuchsia"));
    assertEquals( expected: 2 , tester.getSpinnerPosition(color: "Red"));
    assertEquals( expected: 3 , tester.getSpinnerPosition(color: "Green"));
    assertEquals( expected: 4 , tester.getSpinnerPosition(color: "Purple"));
    assertEquals( expected: 5 , tester.getSpinnerPosition(color: "Blue"));
    assertEquals( expected: 6 , tester.getSpinnerPosition(color: "Maroon"));
    assertEquals( expected: 7 , tester.getSpinnerPosition(color: "Teal"));
```