Group 6

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Mobile/Web-Based Event and Assignment Planner

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Storytelling:

What is the main story?

This is Meredith Stewart. As a widowed mother to one adult child and one high school freshman, her schedule is packed. From working full-time as a grocery store manager, helping her daughter with homework and transportation, and keeping her house in order, she barely has any time for herself. She realizes that working as a store manager isn't necessarily the most stable or gainful of employment, so she enrolls in a vocational training program at her local college to become a hospital coder. However, given the amount of responsibilities she's juggling, keeping up with updates on assignments and other college tasks is difficult. Sometimes things slip her mind. She begins to feel overwhelmed at the requirements of her education combined with her duties as a mother and an employee and has a hard time organizing her tasks in any cohesive way.[1]

This is Johnathan Ngyuen, a college freshman. The fact that college lacks a predefined structure combined with no education on time management make it difficult for him to budget his time appropriately. He frequently underestimates the amount of time he needs to spend on assignments and procrastinates because he feels overburdened. On top of this, he has to get a part-time job to supplement his financial aid, further straining his capacity. His stress compounds as he begins to miss assignments and deadlines.[2]

These people are merely hypothetical; however, their stories are amalgamations of real people's experiences. They are examples of a growing issue in the general educational population: a lack of the ability to plan efficiently.

[1] Hypothetical case image generated courtesy of *thispersondoesnotexist.com*
[2] Hypothetical case image generated courtesy of *thispersondoesnotexist.com*

As college students ourselves, we know how important it is to excel in school while also being able to navigate life's responsibilities. To do this, one must devote a certain amount of their daily hours to studying and also set aside time for extracurricular activities. This is where planning and strategizing come into the picture and led us to try to come up with some kind of solution: an event planner. Time management is one of the biggest issues that has plagued student success all over the world and an event and assignment planner is an essential tool that could help mitigate this problem.

Who are the communities in need of help?

Many students' school lives are incredibly busy. In addition to balancing several courses and their workloads, they must also balance social obligations and manage their mounting debts. This disproportionately affects lower-income students. Due to these competing responsibilities, many things can slip through the cracks. The further students' progress in their education, the less time they have for other obligations. Around forty percent of all college students work thirty hours a week, and a quarter hold full-time jobs while being full-time students. Twenty-two percent of students are also parents. With all of this in mind their time can become saturated and hard to manage. People need to unwind and decompress from their many obligations at times, lest they suffer burnout. These students would benefit from a method to help keep track of and organize their obligations.

What problems have arisen?

One of college students' most pressing issues is time management and assignment organization. It is common, however, for students to struggle to find time to learn how to plan or create planners themselves which can lead to them feeling overwhelmed, stressed, frustrated, and perpetually behind in assignments. Their exhaustion can lead to other issues with catching up with familial, social, and work obligations while trying to catch up with assignments. Additionally, assignments can simply be forgotten by students.

When did the problem take place?

Time management is a skill that many students lack. This problem, unfortunately, becomes far more prominent when students attain their first real bit of independence as they transition to college life. Their responsibilities expand, coupled with unforeseen circumstances that can derail planning and execution. Most of these events happen in college and other institutions of higher learning. Students' learning how to manage their time effectively would go a long way in helping them ensure success in their academic pursuits.

Where is the origin of the problem?

Time management is an issue that affects everyone from almost all walks of life, whether they are enrolled in vocational training or a university. These students have to dedicate a large portion of their time to studying for exams and completing assignments for multiple courses simultaneously. In most cases, these assignments have strict deadlines and keeping track of them is critical to the student's success. Other contributing factors of apparent detrimental effects are poor study skills, family commitments, and misapprehension of the difficulty of certain assignments.

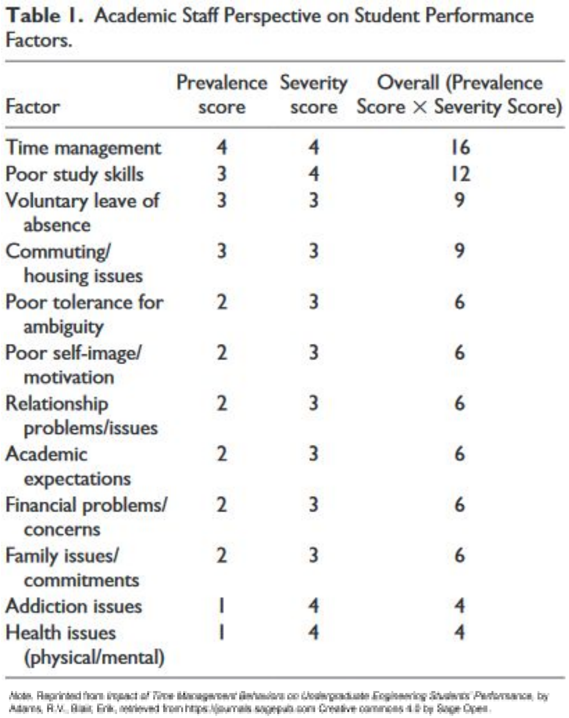


Table 1. Academic Staff Perspective on Student Performance Factors.

Factor	Prevalence score	Severity score	Overall (Prevalence Score × Severity Score)
Time management	4	4	16
Poor study skills	3	4	12
Voluntary leave of absence	3	3	9
Commuting/ housing issues	3	3	9
Poor tolerance for ambiguity	2	3	6
Poor self-image/ motivation	2	3	6
Relationship problems/issues	2	3	6
Academic expectations	2	3	6
Financial problems/ concerns	2	3	6
Family issues/ commitments	2	3	6
Addiction issues	1	4	4
Health issues (physical/mental)	1	4	4

Note. Reprinted from *Impact of Time Management Behaviors on Undergraduate Engineering Students' Performance*, by Adams, R.V., Blair, Erik, retrieved from https://journals.sagepub.com Creative commons 4.0 by Sage Open.

Why does this problem exist?

Time management may have become a greater issue as the idea of two hours of studying per credit hour became more commonplace. This disproportionally affects low-income and minority communities, as they tend to have to work in college to support their academic advancement. They are also far more likely to see downward trends in their grades as their work obligations approach or exceed forty hours a week.

We can lighten the load for these students, with an event planner. This will allow them to focus on assignments instead of having to constantly check and keep track of changes to assignments as well as deadlines for completion.

Data Used:

Problem Data

In a study at the University of Georgia, students enrolled in an introductory psychology class volunteered to complete a series of surveys for college credit. These 90 students, about 90% of which were white and all of whom had a wide variety of majors, were asked about a variety of topics including time management. This survey involved selecting on a scale from 1 to 5 how frequently they adhere to the hypothetical planning statements, with 5 being the highest and 1 being the lowest (reverse scoring exceptions are noted with an asterisk on the following chart). Short-range planning (Factor 1) was categorized by questions that implied short term planning, such as planning out your day at the start of every day. Time attitudes (Factor 2) reflected whether students felt they were using their time effectively and how much progress they felt they were making. Long-range planning (Factor 3) was, conversely to short-range planning, focused on longer-term organization and laying groundwork for later short-range planning.

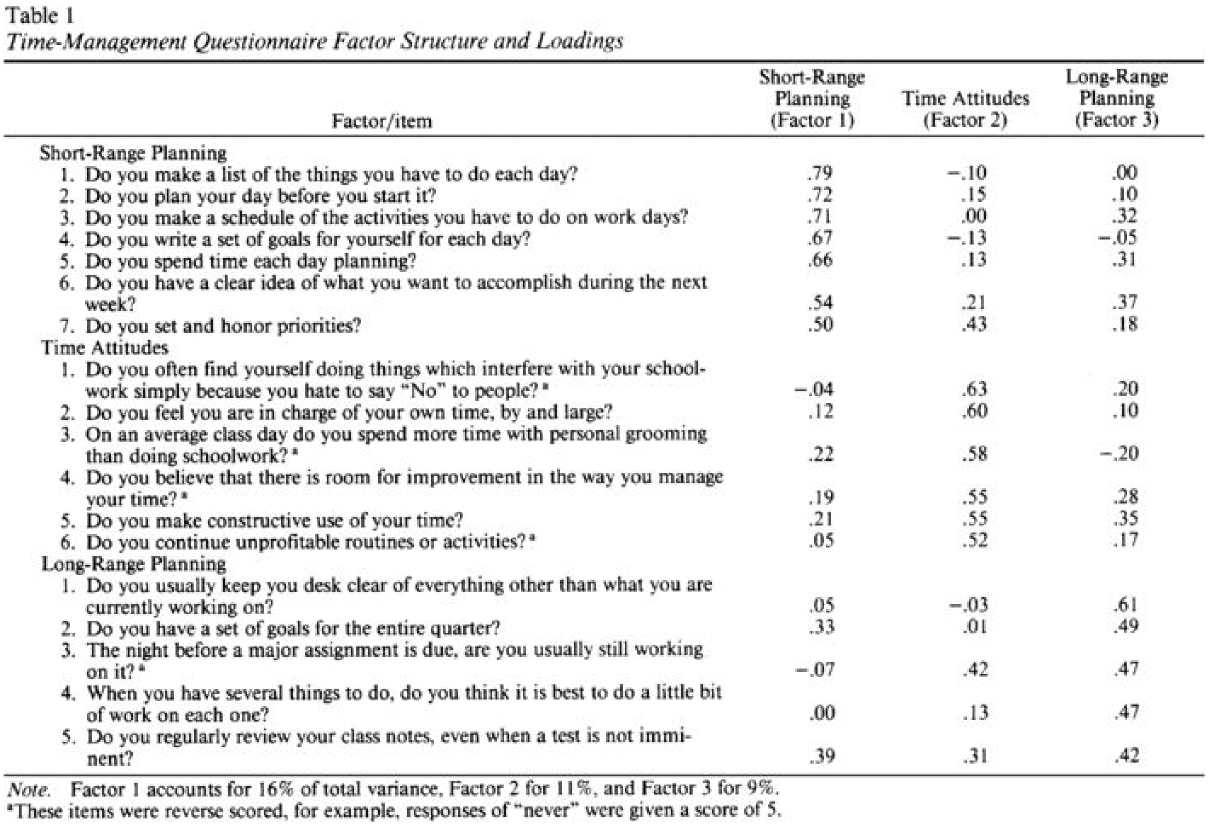


Table 1
Time-Management Questionnaire Factor Structure and Loadings

Factor/item	Short-Range Planning (Factor 1)	Time Attitudes (Factor 2)	Long-Range Planning (Factor 3)
Short-Range Planning			
1. Do you make a list of the things you have to do each day?	.79	−.10	.00
2. Do you plan your day before you start it?	.72	.15	.10
3. Do you make a schedule of the activities you have to do on work days?	.71	.00	.32
4. Do you write a set of goals for yourself for each day?	.67	−.13	−.05
5. Do you spend time each day planning?	.66	.13	.31
6. Do you have a clear idea of what you want to accomplish during the next week?	.54	.21	.37
7. Do you set and honor priorities?	.50	.43	.18
Time Attitudes			
1. Do you often find yourself doing things which interfere with your schoolwork simply because you hate to say "No" to people?[a]	−.04	.63	.20
2. Do you feel you are in charge of your own time, by and large?	.12	.60	.10
3. On an average class day do you spend more time with personal grooming than doing schoolwork?[a]	.22	.58	−.20
4. Do you believe that there is room for improvement in the way you manage your time?[a]	.19	.55	.28
5. Do you make constructive use of your time?	.21	.55	.35
6. Do you continue unprofitable routines or activities?[a]	.05	.52	.17
Long-Range Planning			
1. Do you usually keep you desk clear of everything other than what you are currently working on?	.05	−.03	.61
2. Do you have a set of goals for the entire quarter?	.33	.01	.49
3. The night before a major assignment is due, are you usually still working on it?[a]	−.07	.42	.47
4. When you have several things to do, do you think it is best to do a little bit of work on each one?	.00	.13	.47
5. Do you regularly review your class notes, even when a test is not imminent?	.39	.31	.42

Note. Factor 1 accounts for 16% of total variance, Factor 2 for 11%, and Factor 3 for 9%.

[a] These items were reverse scored, for example, responses of "never" were given a score of 5.

In a later study analyzing these findings, researchers found the correlation between short-range planning and time attitude to GPA to be the largest factor by far. The researchers disregarded the positive SAT correlation as that correlation was already well-known in the field.

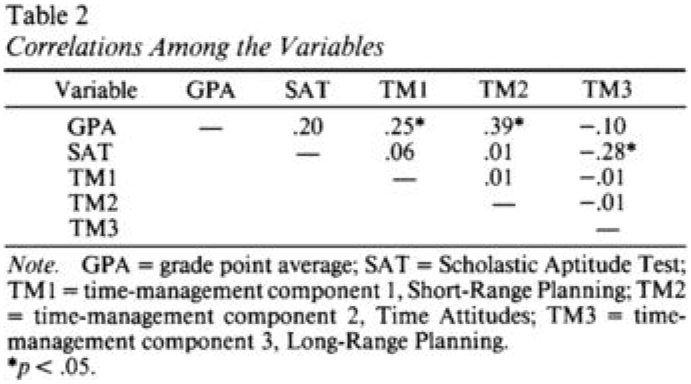


Table 2
Correlations Among the Variables

Variable	GPA	SAT	TM1	TM2	TM3
GPA	—	.20	.25*	.39*	−.10
SAT		—	.06	.01	−.28*
TM1			—	.01	−.01
TM2				—	−.01
TM3					—

Note. GPA = grade point average; SAT = Scholastic Aptitude Test; TM1 = time-management component 1, Short-Range Planning; TM2 = time-management component 2, Time Attitudes; TM3 = time-management component 3, Long-Range Planning.
*$p < .05$.

Application Data

The EventPlanner app will require the use of the Google Calendar and the Youtube API.

Google Calendar API

To have permissions to access the data from this API, the developer would generate an API key for this function.

The API key would allow the app to query and acquire event tables from the user's google calendar based on the selected date, parse through the tables, and output the table's event data for the selected date in the daily view tab of the app.

Youtube API

This API requires a key to be able to use it. The developer would need a Google account to be able to generate a key for further access. When the API is created, we would need the channel ID and playlist ID, both of which can be accessed from certain parts of the YouTube url.

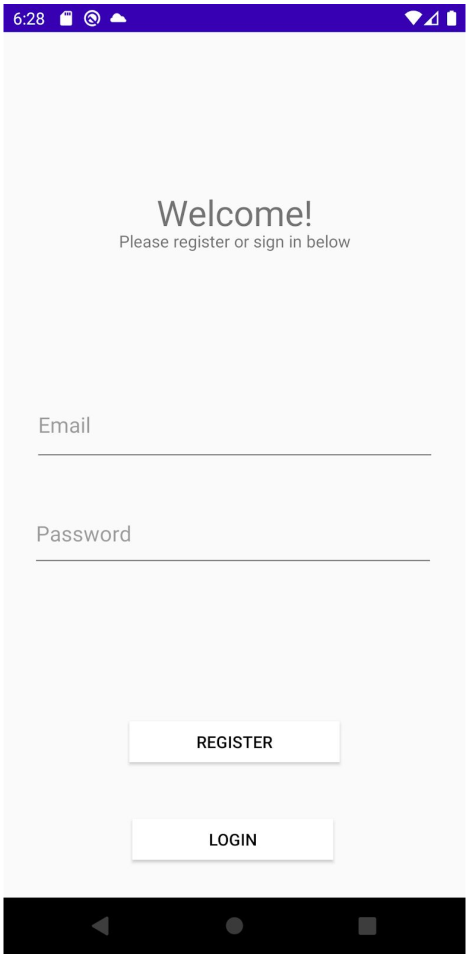
From there, we would want to access the number of videos and the videos themselves. This information would be saved and displayed to the user as a scrolling list of choices to choose from.

Further processes can be accomplished within the app code itself without APIs necessary.

App demonstration:

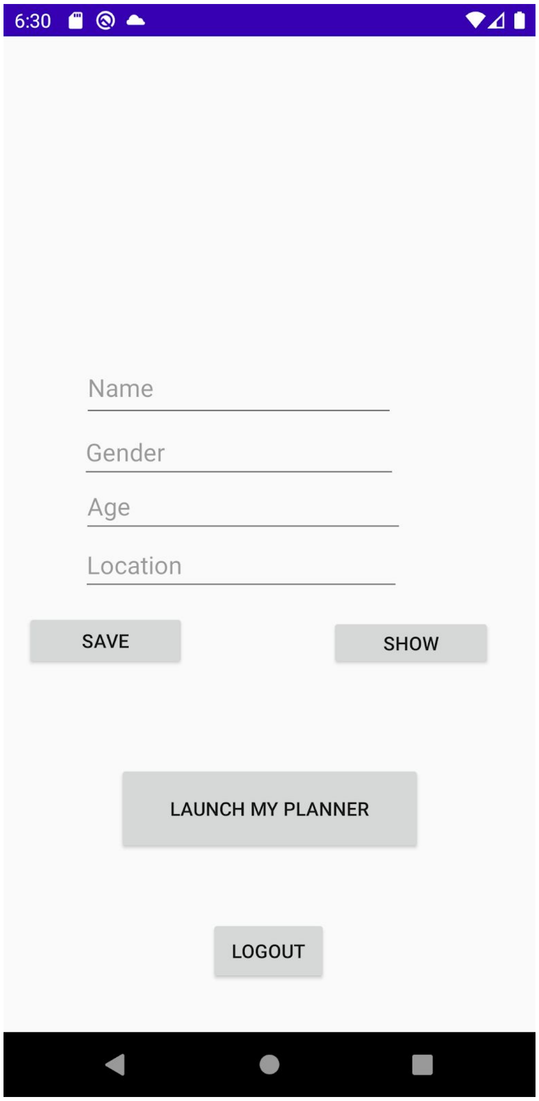
The application will begin on a welcome screen that will allow the user to login and access their account. They will then be able to launch their planner from the appropriate button.

Welcome Screen



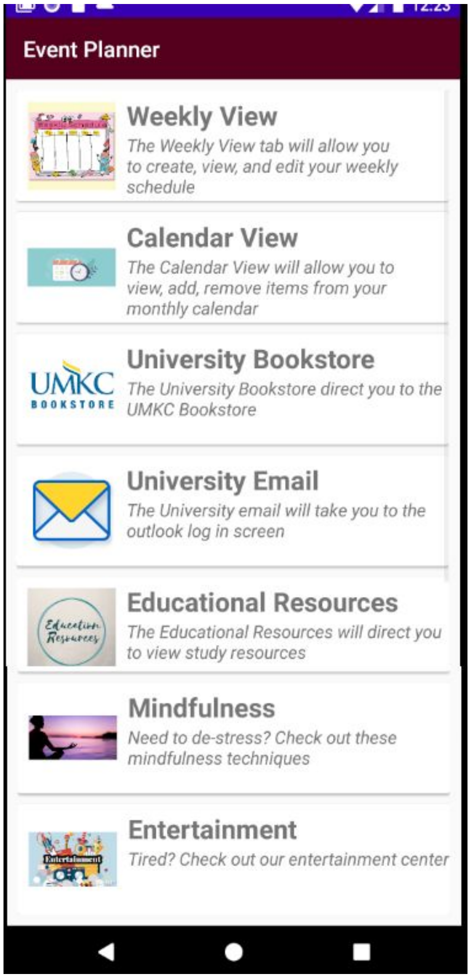
The welcome screen is what greets the user upon first bootup or after logging out. The user enters their username and pin password to login to their account. If the user doesn't have an account, they can enter their username and password and press register instead of login. The server storage is handled by Firebase.

Launcher Screen



Upon either logging in to the application from the welcome screen or opening the app again without previously logging out, the user is taken to the launcher screen. Here you can store your name, gender, age, and location. Clicking “show” will pull these values and display them above. The logout button will log the user out of the firebase session and send them back to the welcome screen. “Launch my planner” will redirect the user to the main page where the major functionality of the application is available.

Main Page



Event Planner

Weekly View
The Weekly View tab will allow you to create, view, and edit your weekly schedule

Calendar View
The Calendar View will allow you to view, add, remove items from your monthly calendar

University Bookstore
The University Bookstore direct you to the UMKC Bookstore

University Email
The University email will take you to the outlook log in screen

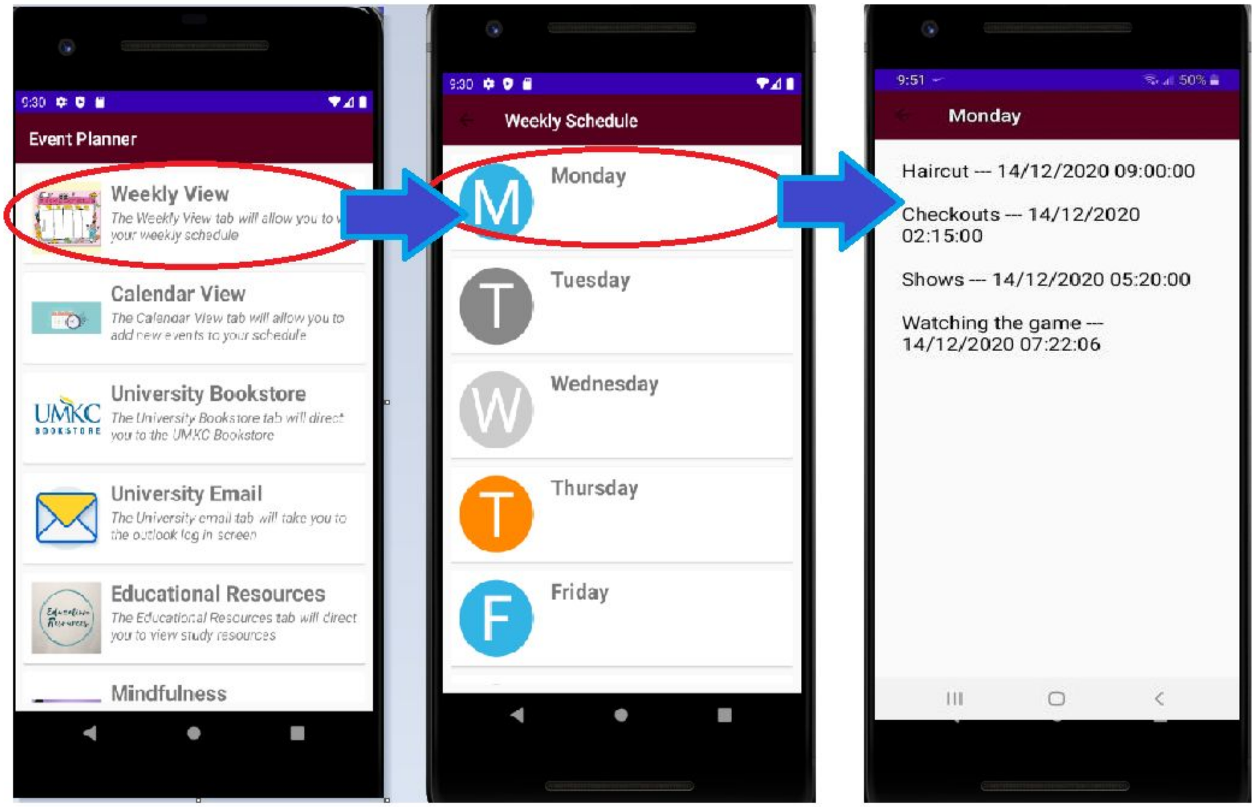
Educational Resources
The Educational Resources will direct you to view study resources

Mindfulness
Need to de-stress? Check out these mindfulness techniques

Entertainment
Tired? Check out our entertainment center

Beginning with the Weekly View, this function will take you to a new activity which will display a list of week days. The user can then select one of those days, bringing up a new activity that will display the events scheduled for that day.

Weekly View



9:30

Event Planner

Weekly View
The Weekly View tab will allow you to v your weekly schedule

Calendar View
The Calendar View tab will allow you to add new events to your schedule

University Bookstore
The University Bookstore tab will direct you to the UMKC Bookstore

University Email
The University email tab will take you to the outlook log in screen

Educational Resources
The Educational Resources tab will direct you to view study resources

Mindfulness

9:30

Weekly Schedule

9:51

Monday

Haircut --- 14/12/2020 09:00:00

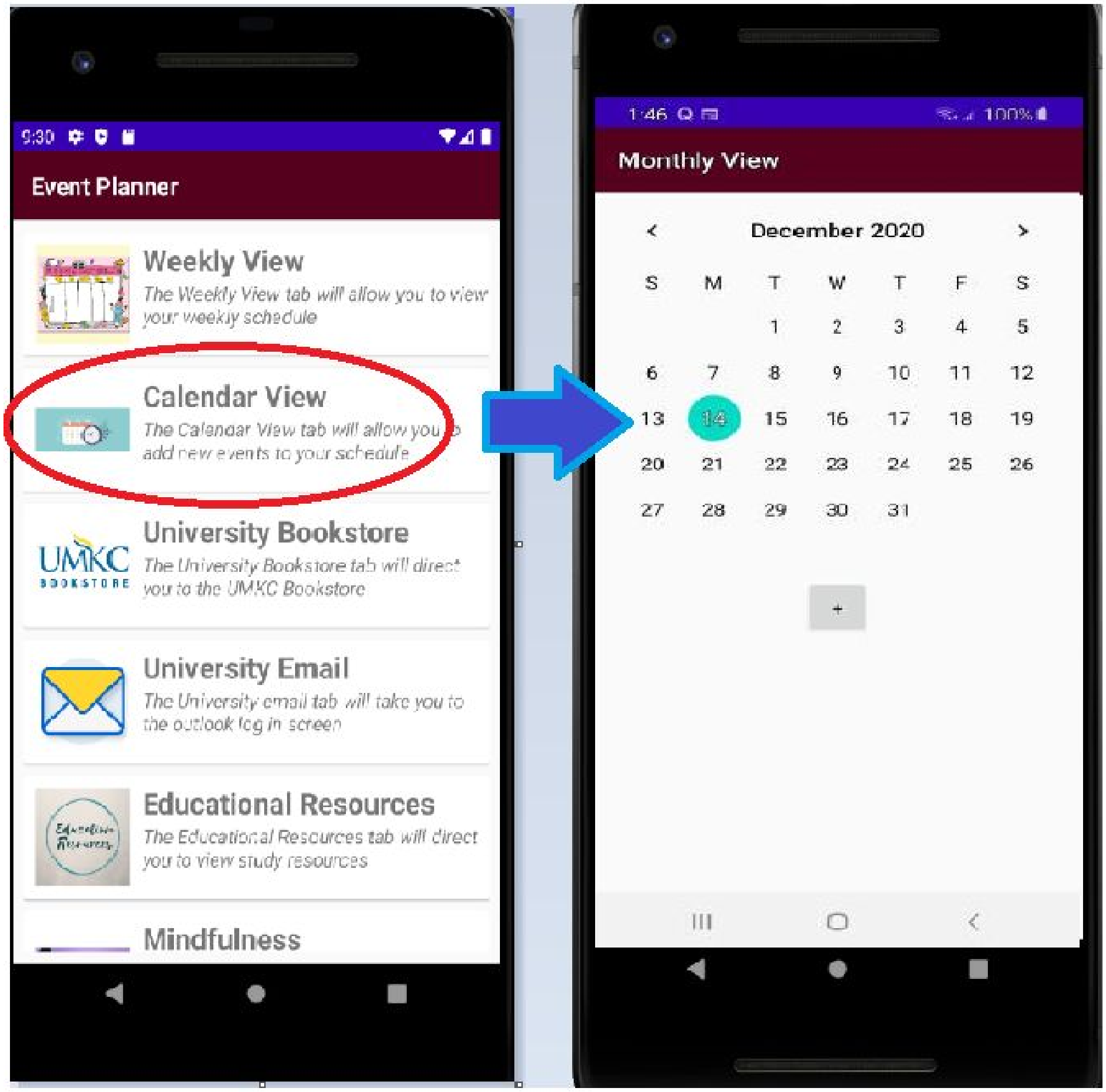
Checkouts --- 14/12/2020 02:15:00

Shows --- 14/12/2020 05:20:00

Watching the game --- 14/12/2020 07:22:06

Weekly View will allow the user to see a 7 day window of their upcoming events for that week. The tab will take the user to a new activity that displays a list of weekdays. The user then can select one of those days to bring up a new activity that will display the events for that day.

Calendar View



Weekly View
The Weekly View tab will allow you to view your weekly schedule

Calendar View
The Calendar View tab will allow you to add new events to your schedule

University Bookstore
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University Email
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Educational Resources
The Educational Resources tab will direct you to view study resources

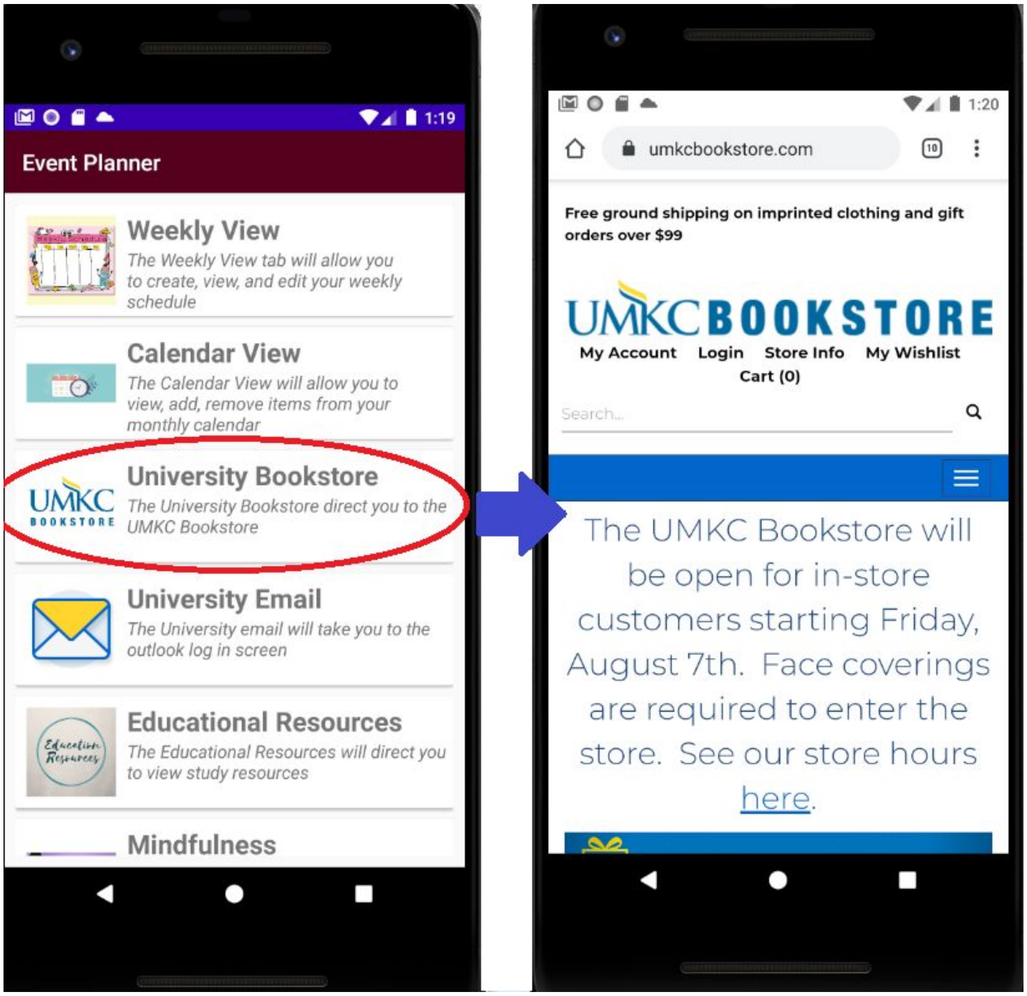
Mindfulness

< December 2020 >

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

The Calendar View tab allows the user to add events to their calendar at any date selected. The user can select a date on the calendar and press the “+” button to add events to their calendar on that date as desired.

University Bookstore



Weekly View

The Weekly View tab will allow you to create, view, and edit your weekly schedule

Calendar View

The Calendar View will allow you to view, add, remove items from your monthly calendar

University Bookstore

The University Bookstore direct you to the UMKC Bookstore

University Email

The University email will take you to the outlook log in screen

Educational Resources

The Educational Resources will direct you to view study resources

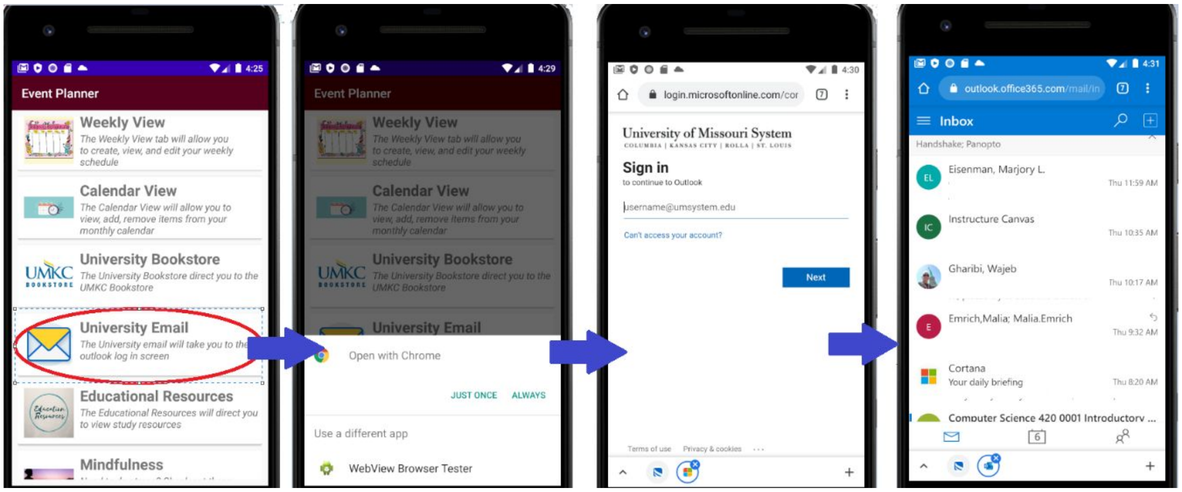
Mindfulness

Free ground shipping on imprinted clothing and gift orders over $99

The UMKC Bookstore will be open for in-store customers starting Friday, August 7th. Face coverings are required to enter the store. See our store hours here.

The University Bookstore tab will open a new window directed to the UMKC bookstore page. This will allow the user to browse the website and purchase books/supplies in one central location. The app is not closed when the new page is opened to allow for further access. The same process is completed for UMKC student email log-in and educational resources.

University Email



The Weekly View tab will allow you to create, view, and edit your weekly schedule

The Calendar View will allow you to view, add, remove items from your monthly calendar

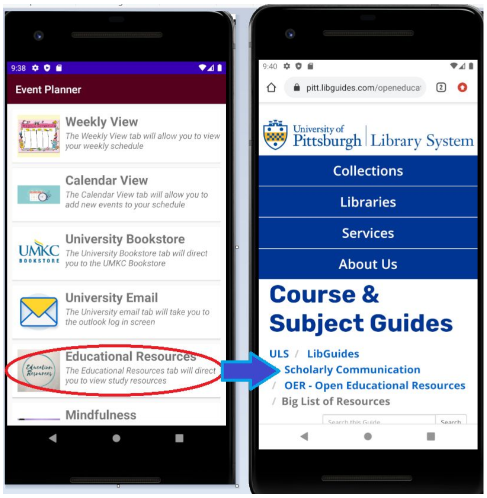
The University Bookstore direct you to the UMKC Bookstore

The University email will take you to the outlook log in screen

The Educational Resources will direct you to view study resources

University Email will allow the user to access their student email as needed. This tab will redirect to the Outlook login screen for their emails. They would then log in as needed.

Educational Resources



The Weekly View tab will allow you to view your weekly schedule

The Calendar View tab will allow you to add new events to your schedule

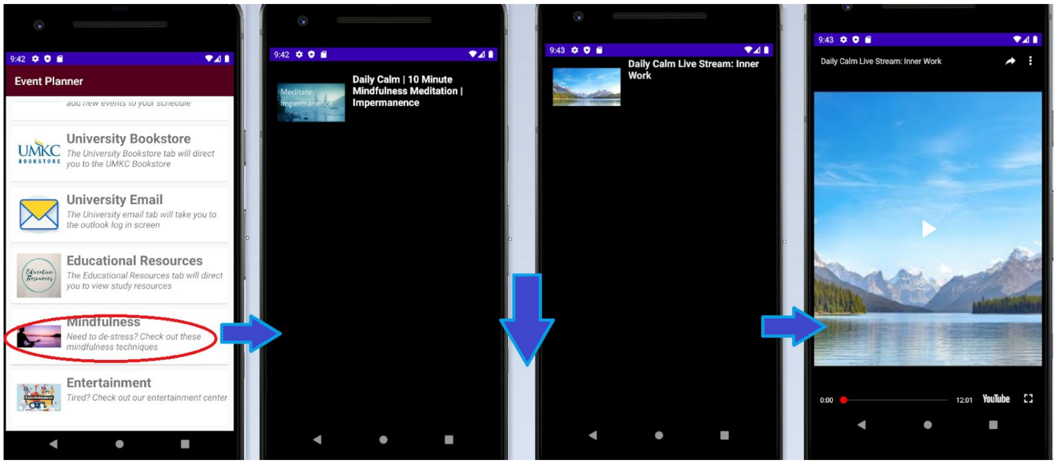
The University Bookstore tab will direct you to the UMKC Bookstore

The University email tab will take you to the outlook log in screen

The Educational Resources tab will direct you to view study resources

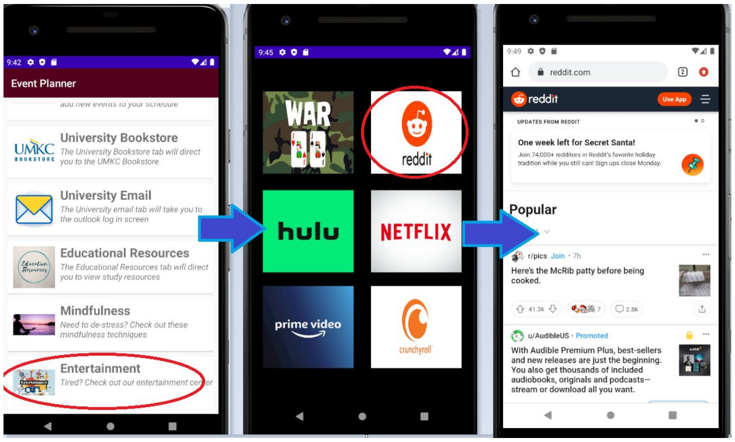
Educational resources will allow the user to search through a database of study material based on their major. The tab will redirect to a library system.

Mindfulness


9:42
Event Planner
add new events to your schedule
University Bookstore
The University Bookstore tab will direct you to the UMKC Bookstore
University Email
The University email tab will take you to the outlook log in screen
Educational Resources
The Educational Resources tab will direct you to view study resources
Mindfulness
Need to de-stress? Check out these mindfulness techniques
Entertainment
Tired? Check out our entertainment center
9:42
Daily Calm | 10 Minute Mindfulness Meditation | Impermanence
9:43
Daily Calm Live Stream: Inner Work
9:43
Daily Calm Live Stream: Inner Work
0:00
12:01
YouTube

The Mindfulness tab will direct the user to a new activity. Here, the user will be able to see a playlist of youtube videos regarding medication and stress management techniques. The user may scroll to select a video choice and tap on the video icon to play the video selected.

Entertainment


9:42
Event Planner
add new events to your schedule
University Bookstore
The University Bookstore tab will direct you to the UMKC Bookstore
University Email
The University email tab will take you to the outlook log in screen
Educational Resources
The Educational Resources tab will direct you to view study resources
Mindfulness
Need to de-stress? Check out these mindfulness techniques
Entertainment
Tired? Check out our entertainment center
9:45
WAR
reddit
hulu
NETFLIX
prime video
crunchyroll
9:49
reddit.com
reddit
Use App
UPDATES FROM REDDIT
One week left for Secret Santa!
Join 74,000+ redditors in Reddit's favorite holiday tradition while you still can! Sign ups close Monday.
Popular
r/pics Join • 7h
Here's the McRib patty before being cooked.
41.3k
7
2.8k
u/AudibleUS • Promoted
With Audible Premium Plus, best-sellers and new releases are just the beginning. You also get thousands of included audiobooks, originals and podcasts—stream or download all you want.

The final option is the Entertainment tab. This will direct the user to a new activity displaying several options for the user to choose from. Two of the choices will include simple games to play on Android. These will open new activities. A few other choices—Hulu, Youtube, Facebook, etc-- will be used to direct the user to a new tab. The app will still be available in the background.

Team details:

Our team consists of the following individuals and duties:

Eric Osuala – Database implementation and management , project report documentation, applications tab in OCEL

Nehesia Edmond - Layout design, starter code/activities, youtube API, data sharing tab in OCEL

James Helm – Google Calendar API Implementation, project report documentation, and backend Debugging, storytelling tab in OCEL

Blockages/Issues:

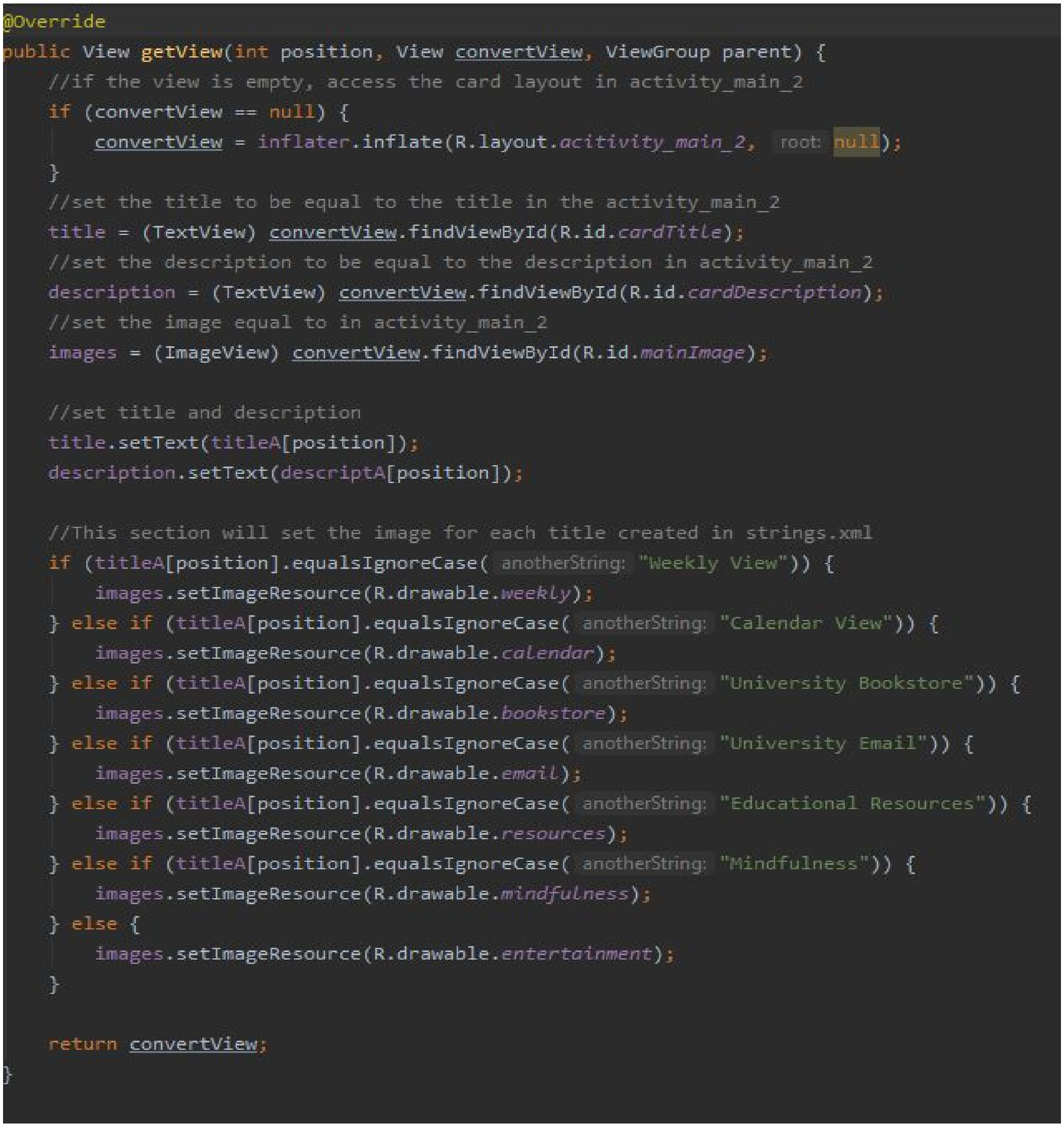
Initially we wanted to do a hybrid application, but once we realized we'd need to set up a server for synchronization, we decided to shrink the scope for the initial development. We don't have access to an online persistent server with our resources and experience, so implementing that would be out of our reach. If the app were to take off, however, we might come back to it and implement something similar. Github access for collaboration was also an issue initially, as authentication wasn't being handled properly either by the Github servers or through the links themselves.

Additionally, the idea of using the Khan Academy API or Quizlet API was entertained, however, for both websites, those APIs are no longer supported. They cannot be implemented and any attempts to do so will inform you that they are not supported. This is what led to the idea of using the YouTube API. This was a slow process, unfortunately, as accessing the desired videos and inserting them into a visually pleasing layout is proving finicky. Furthermore, the recycler view for the youtube videos will display one video at a time.

In working on implementation of the Canvas API, it was quickly apparent that Canvas doesn't have a working mobile java-compatible API. There have been attempts to make programs to parse through the data and wrap it in a usable format for android and other java-based applications but none are to parity with Canvas functionality as of yet. Thus, usage of Canvas API was abandoned in favor of implementing the Google Calendar API access.

Code Snippets:

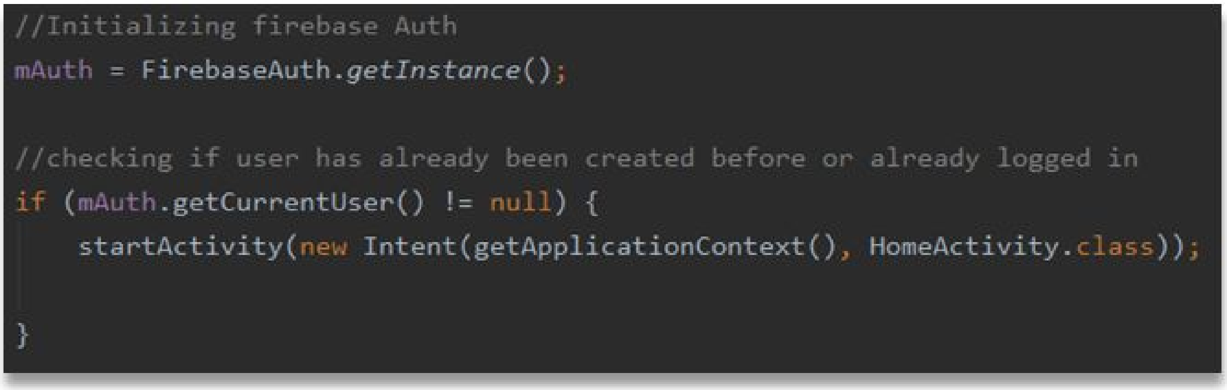
Code for formatting of main menu:



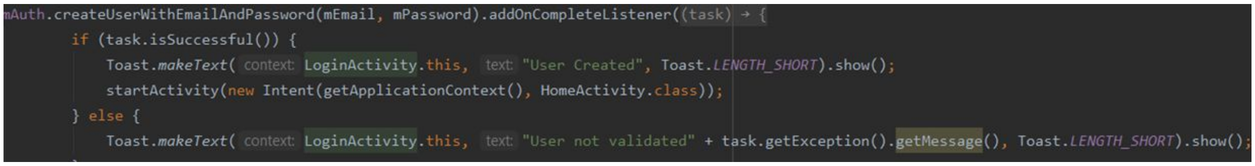
```
@Override
public View getView(int position, View convertView, ViewGroup parent) {
    //if the view is empty, access the card layout in activity_main_2
    if (convertView == null) {
        convertView = inflater.inflate(R.layout.acitivity_main_2,  root: null);
    }
    //set the title to be equal to the title in the activity_main_2
    title = (TextView) convertView.findViewById(R.id.cardTitle);
    //set the description to be equal to the description in activity_main_2
    description = (TextView) convertView.findViewById(R.id.cardDescription);
    //set the image equal to in activity_main_2
    images = (ImageView) convertView.findViewById(R.id.mainImage);

    //set title and description
    title.setText(titleA[position]);
    description.setText(descriptA[position]);

    //This section will set the image for each title created in strings.xml
    if (titleA[position].equalsIgnoreCase( anotherString: "Weekly View")) {
        images.setImageResource(R.drawable.weekly);
    } else if (titleA[position].equalsIgnoreCase( anotherString: "Calendar View")) {
        images.setImageResource(R.drawable.calendar);
    } else if (titleA[position].equalsIgnoreCase( anotherString: "University Bookstore")) {
        images.setImageResource(R.drawable.bookstore);
    } else if (titleA[position].equalsIgnoreCase( anotherString: "University Email")) {
        images.setImageResource(R.drawable.email);
    } else if (titleA[position].equalsIgnoreCase( anotherString: "Educational Resources")) {
        images.setImageResource(R.drawable.resources);
    } else if (titleA[position].equalsIgnoreCase( anotherString: "Mindfulness")) {
        images.setImageResource(R.drawable.mindfulness);
    } else {
        images.setImageResource(R.drawable.entertainment);
    }

    return convertView;
}
```

(Other card formatting in the app uses similar methods)

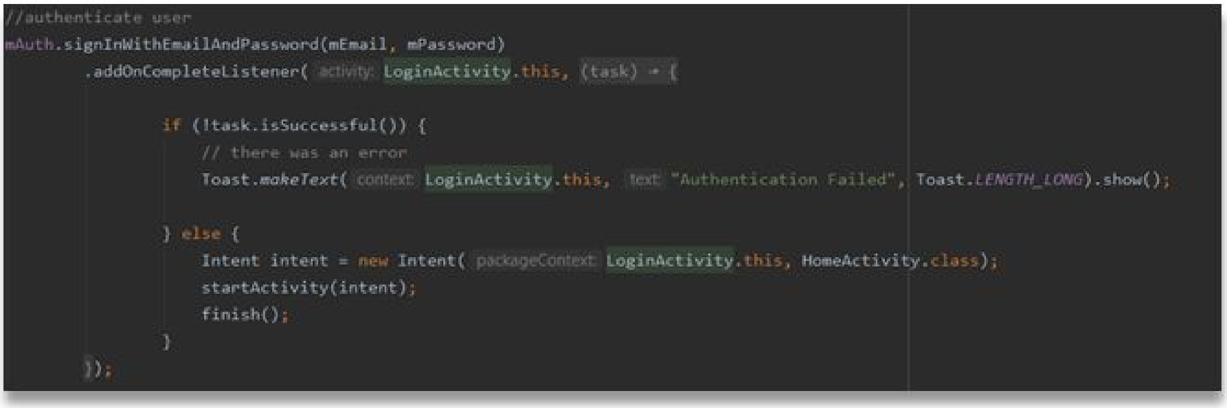
Code for implementing firebase for user login/registration:



```
//Initializing firebase Auth
mAuth = FirebaseAuth.getInstance();

//checking if user has already been created before or already logged in
if (mAuth.getCurrentUser() != null) {
    startActivity(new Intent(getApplicationContext(), HomeActivity.class));

}
```

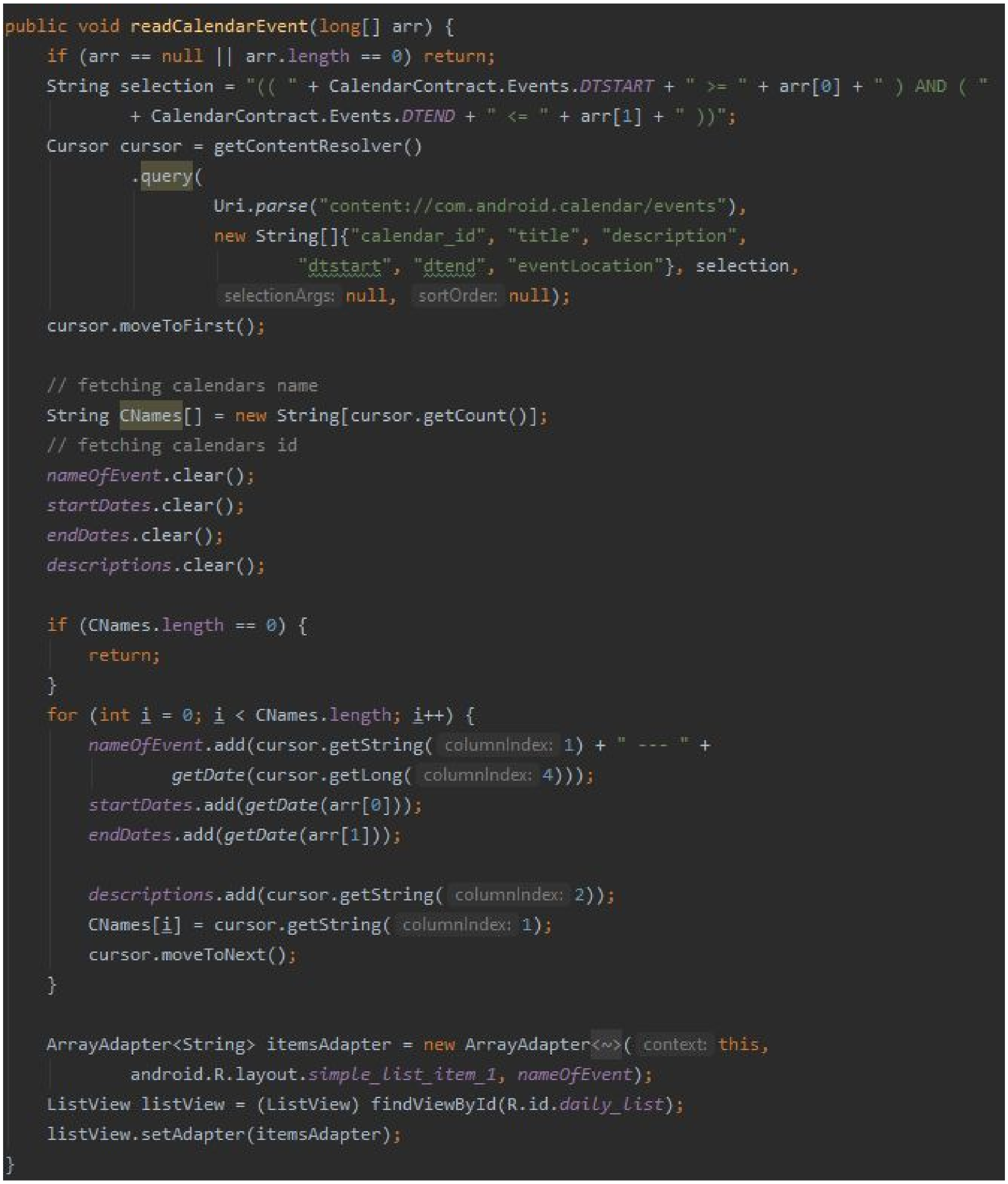


```
mAuth.createUserWithEmailAndPassword(mEmail, mPassword).addOnCompleteListener((task) → {
        if (task.isSuccessful()) {
            Toast.makeText( context: LoginActivity.this,  text: "User Created", Toast.LENGTH_SHORT).show();
            startActivity(new Intent(getApplicationContext(), HomeActivity.class));
        } else {
            Toast.makeText( context: LoginActivity.this,  text: "User not validated" + task.getException().getMessage(), Toast.LENGTH_SHORT).show();
```



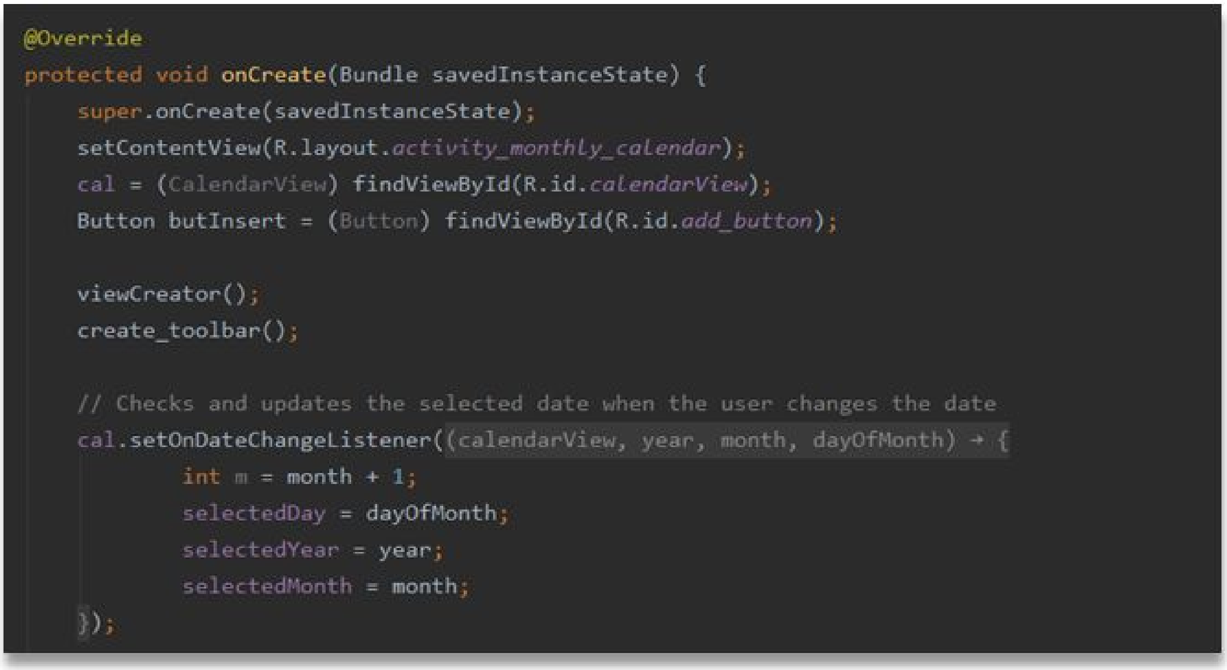
```
//authenticate user
mAuth.signInWithEmailAndPassword(mEmail, mPassword)
        .addOnCompleteListener( activity: LoginActivity.this, (task) → {

                if (!task.isSuccessful()) {
                    // there was an error
                    Toast.makeText( context: LoginActivity.this,  text: "Authentication Failed", Toast.LENGTH_LONG).show();

                } else {
                    Intent intent = new Intent( packageContext: LoginActivity.this, HomeActivity.class);
                    startActivity(intent);
                    finish();
                }
        });
```

Code for Parsing Event Table on Individual Day View:

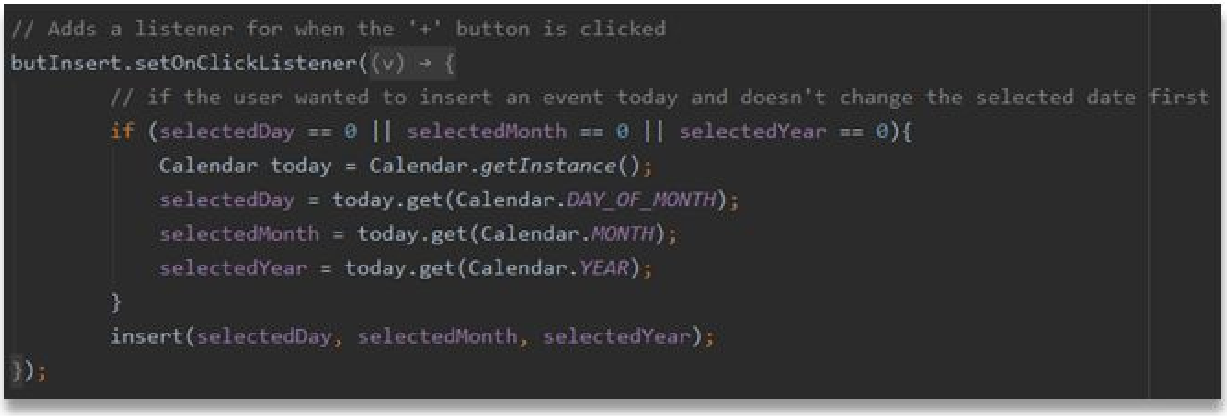


```
public void readCalendarEvent(long[] arr) {
    if (arr == null || arr.length == 0) return;
    String selection = "(( " + CalendarContract.Events.DTSTART + " >= " + arr[0] + " ) AND ( "
            + CalendarContract.Events.DTEND + " <= " + arr[1] + " ))";
    Cursor cursor = getContentResolver()
            .query(
                    Uri.parse("content://com.android.calendar/events"),
                    new String[]{"calendar_id", "title", "description",
                            "dtstart", "dtend", "eventLocation"}, selection,
                     selectionArgs: null,  sortOrder: null);
    cursor.moveToFirst();

    // fetching calendars name
    String CNames[] = new String[cursor.getCount()];
    // fetching calendars id
    nameOfEvent.clear();
    startDates.clear();
    endDates.clear();
    descriptions.clear();

    if (CNames.length == 0) {
        return;
    }
    for (int i = 0; i < CNames.length; i++) {
        nameOfEvent.add(cursor.getString( columnIndex: 1) + " --- " +
                getDate(cursor.getLong( columnIndex: 4)));
        startDates.add(getDate(arr[0]));
        endDates.add(getDate(arr[1]));

        descriptions.add(cursor.getString( columnIndex: 2));
        CNames[i] = cursor.getString( columnIndex: 1);
        cursor.moveToNext();
    }

    ArrayAdapter<String> itemsAdapter = new ArrayAdapter<~>( context: this,
            android.R.layout.simple_list_item_1, nameOfEvent);
    ListView listView = (ListView) findViewById(R.id.daily_list);
    listView.setAdapter(itemsAdapter);
}
```

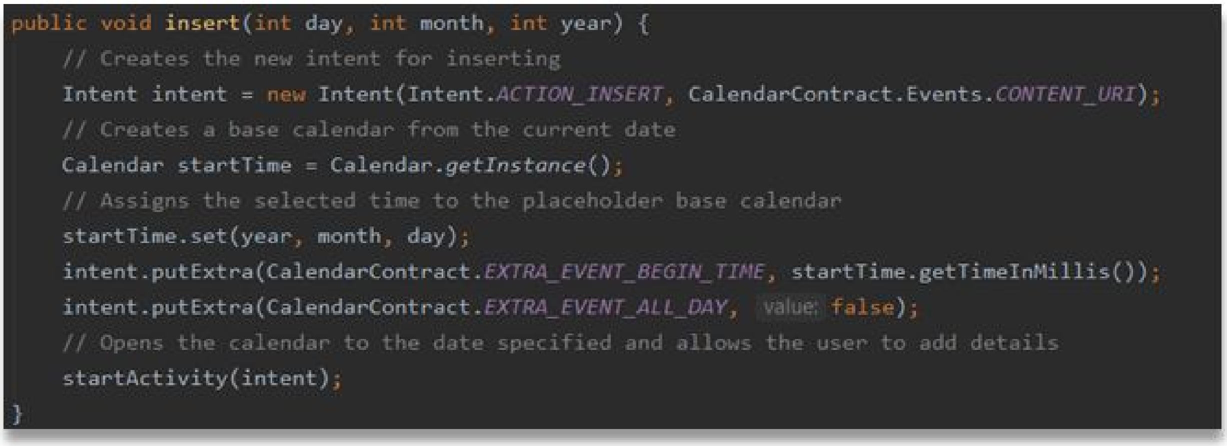
Code for Implementing Monthly Calendar:



```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_monthly_calendar);
    cal = (CalendarView) findViewById(R.id.calendarView);
    Button butInsert = (Button) findViewById(R.id.add_button);

    viewCreator();
    create_toolbar();

    // Checks and updates the selected date when the user changes the date
    cal.setOnDateChangeListener((calendarView, year, month, dayOfMonth) → {
            int m = month + 1;
            selectedDay = dayOfMonth;
            selectedYear = year;
            selectedMonth = month;
    });
```

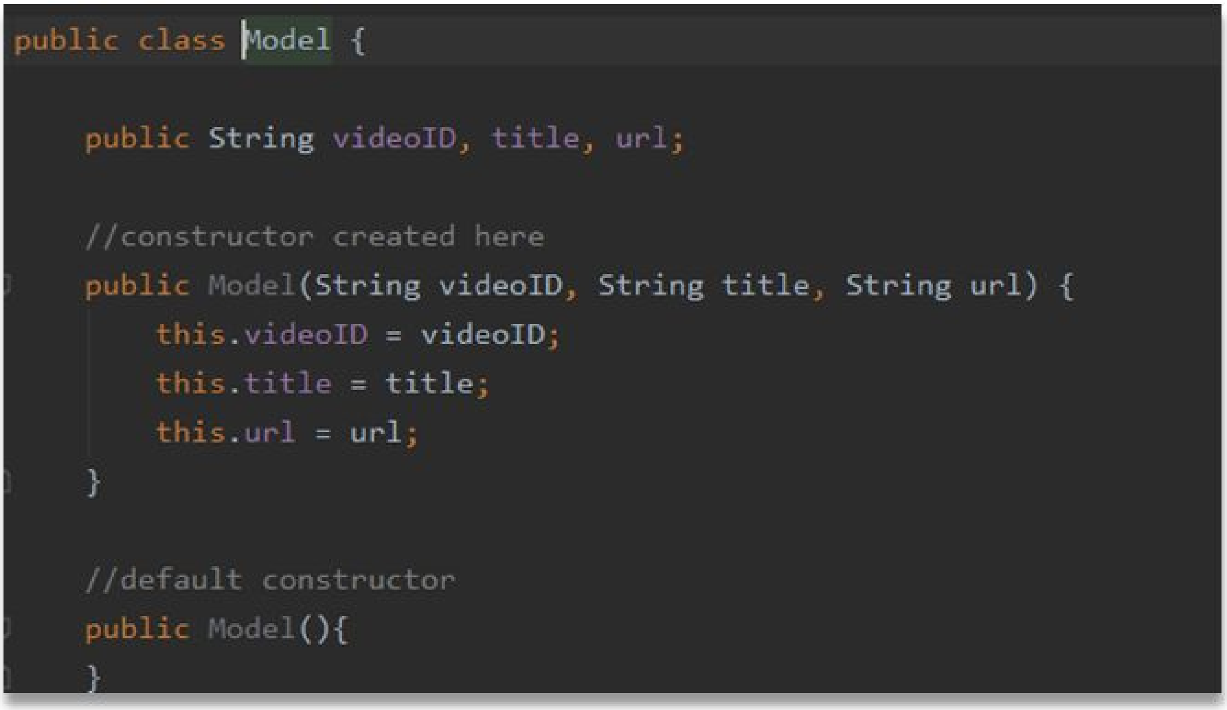


```
// Adds a listener for when the '+' button is clicked
butInsert.setOnClickListener((v) → {
        // if the user wanted to insert an event today and doesn't change the selected date first
        if (selectedDay == 0 || selectedMonth == 0 || selectedYear == 0){
            Calendar today = Calendar.getInstance();
            selectedDay = today.get(Calendar.DAY_OF_MONTH);
            selectedMonth = today.get(Calendar.MONTH);
            selectedYear = today.get(Calendar.YEAR);
        }
        insert(selectedDay, selectedMonth, selectedYear);
});
```

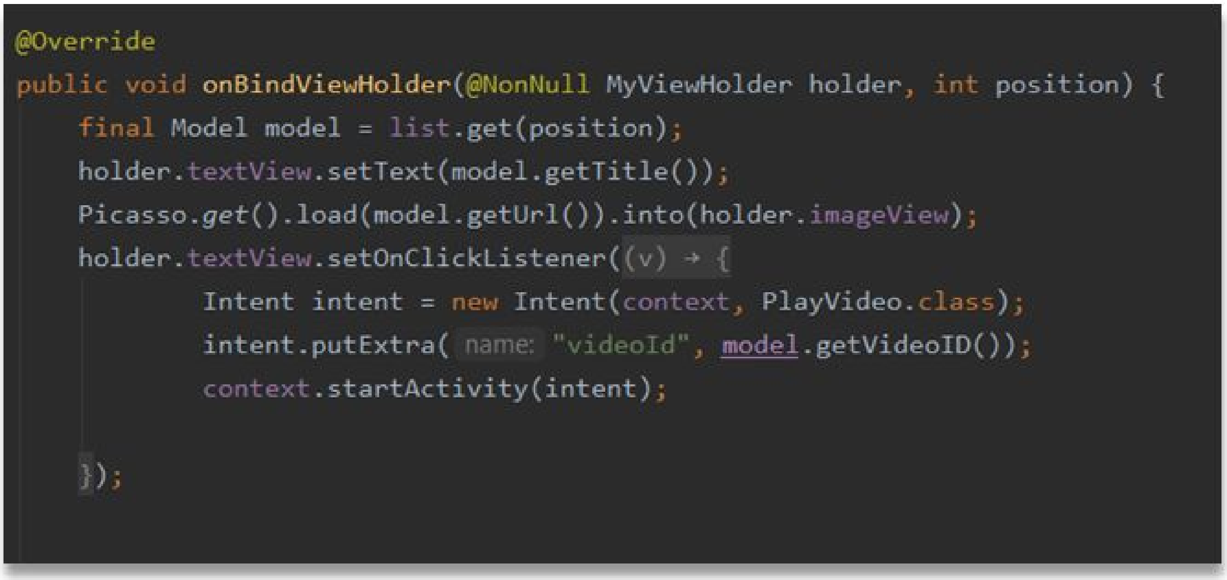


```
public void insert(int day, int month, int year) {
    // Creates the new intent for inserting
    Intent intent = new Intent(Intent.ACTION_INSERT, CalendarContract.Events.CONTENT_URI);
    // Creates a base calendar from the current date
    Calendar startTime = Calendar.getInstance();
    // Assigns the selected time to the placeholder base calendar
    startTime.set(year, month, day);
    intent.putExtra(CalendarContract.EXTRA_EVENT_BEGIN_TIME, startTime.getTimeInMillis());
    intent.putExtra(CalendarContract.EXTRA_EVENT_ALL_DAY,  value: false);
    // Opens the calendar to the date specified and allows the user to add details
    startActivity(intent);
}
```

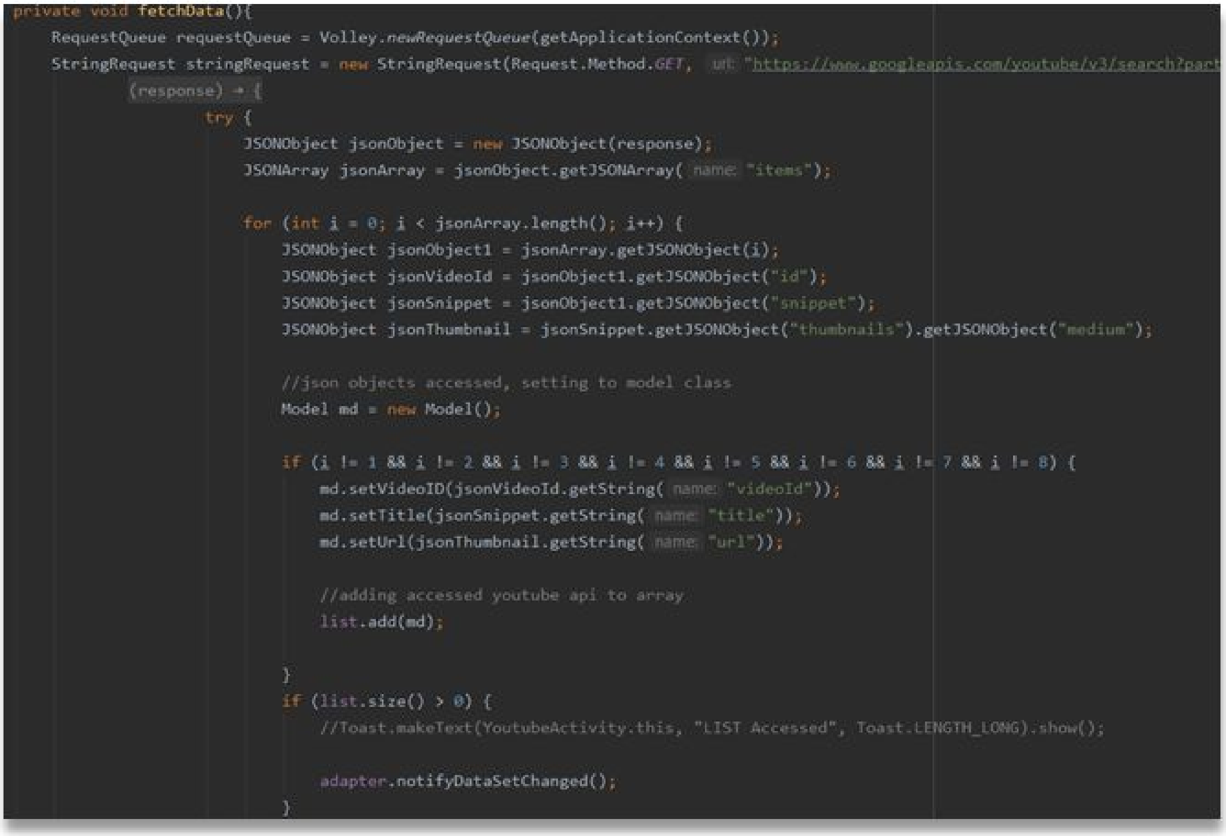
Code for Implementing Mindfulness tab:



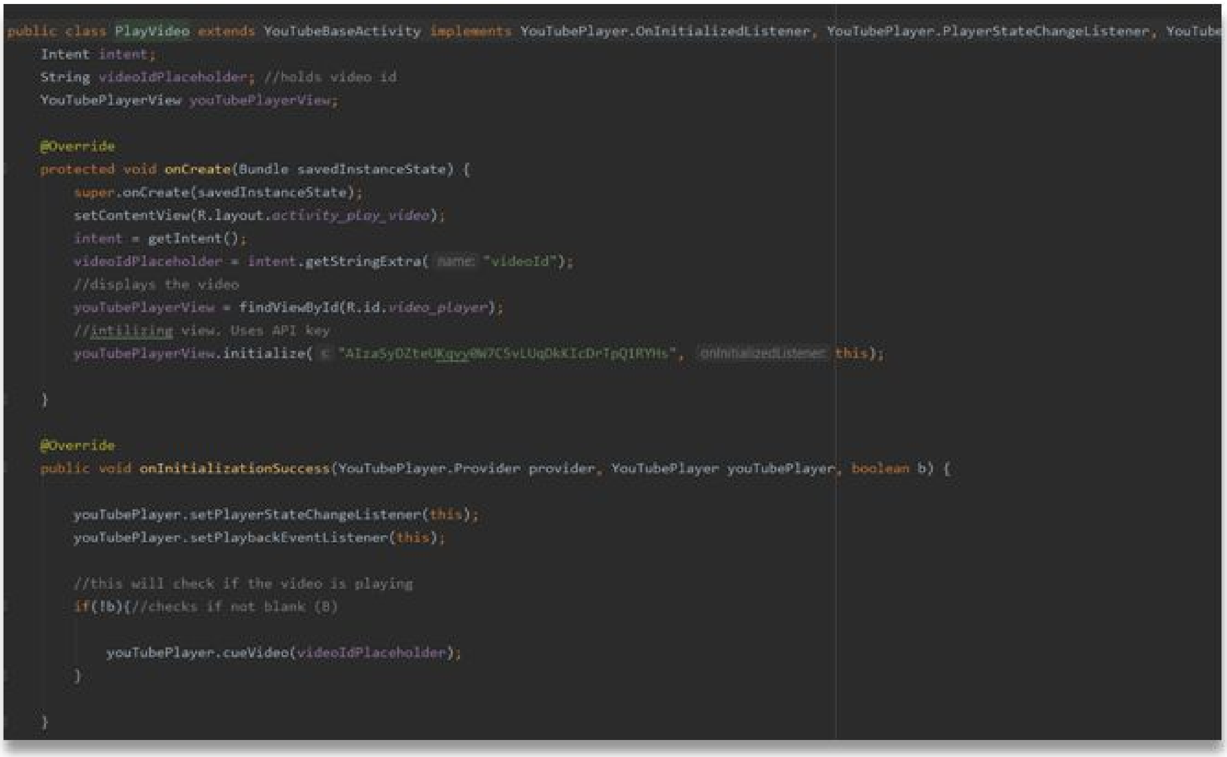
```
public class Model {

    public String videoID, title, url;

    //constructor created here
    public Model(String videoID, String title, String url) {
        this.videoID = videoID;
        this.title = title;
        this.url = url;
    }

    //default constructor
    public Model(){
    }
```



```
@Override
public void onBindViewHolder(@NonNull MyViewHolder holder, int position) {
    final Model model = list.get(position);
    holder.textView.setText(model.getTitle());
    Picasso.get().load(model.getUrl()).into(holder.imageView);
    holder.textView.setOnClickListener((v) → {
            Intent intent = new Intent(context, PlayVideo.class);
            intent.putExtra( name: "videoId", model.getVideoID());
            context.startActivity(intent);

    });
```

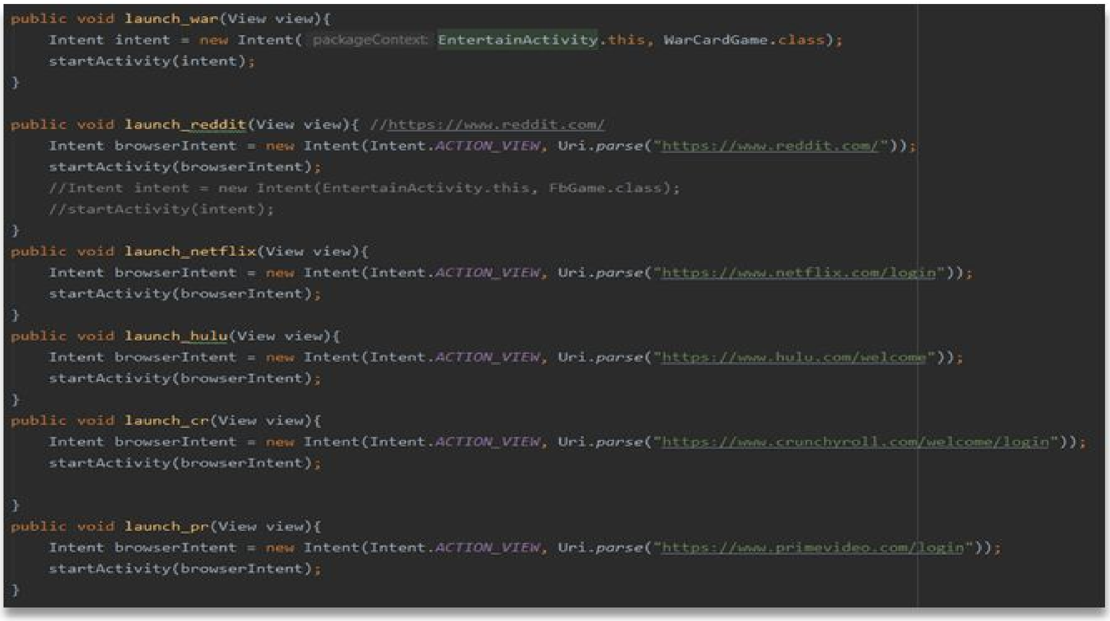


```
private void fetchData(){
    RequestQueue requestQueue = Volley.newRequestQueue(getApplicationContext());
    StringRequest stringRequest = new StringRequest(Request.Method.GET,  url: "https://www.googleapis.com/youtube/v3/search?part
            (response) → {
                    try {
                        JSONObject jsonObject = new JSONObject(response);
                        JSONArray jsonArray = jsonObject.getJSONArray( name: "items");

                        for (int i = 0; i < jsonArray.length(); i++) {
                            JSONObject jsonObject1 = jsonArray.getJSONObject(i);
                            JSONObject jsonVideoId = jsonObject1.getJSONObject("id");
                            JSONObject jsonSnippet = jsonObject1.getJSONObject("snippet");
                            JSONObject jsonThumbnail = jsonSnippet.getJSONObject("thumbnails").getJSONObject("medium");

                            //json objects accessed, setting to model class
                            Model md = new Model();

                            if (i != 1 && i != 2 && i != 3 && i != 4 && i != 5 && i != 6 && i != 7 && i != 8) {
                                md.setVideoID(jsonVideoId.getString( name: "videoId"));
                                md.setTitle(jsonSnippet.getString( name: "title"));
                                md.setUrl(jsonThumbnail.getString( name: "url"));

                                //adding accessed youtube api to array
                                list.add(md);

                            }
                            if (list.size() > 0) {
                                //Toast.makeText(YoutubeActivity.this, "LIST Accessed", Toast.LENGTH_LONG).show();

                                adapter.notifyDataSetChanged();
                            }
```

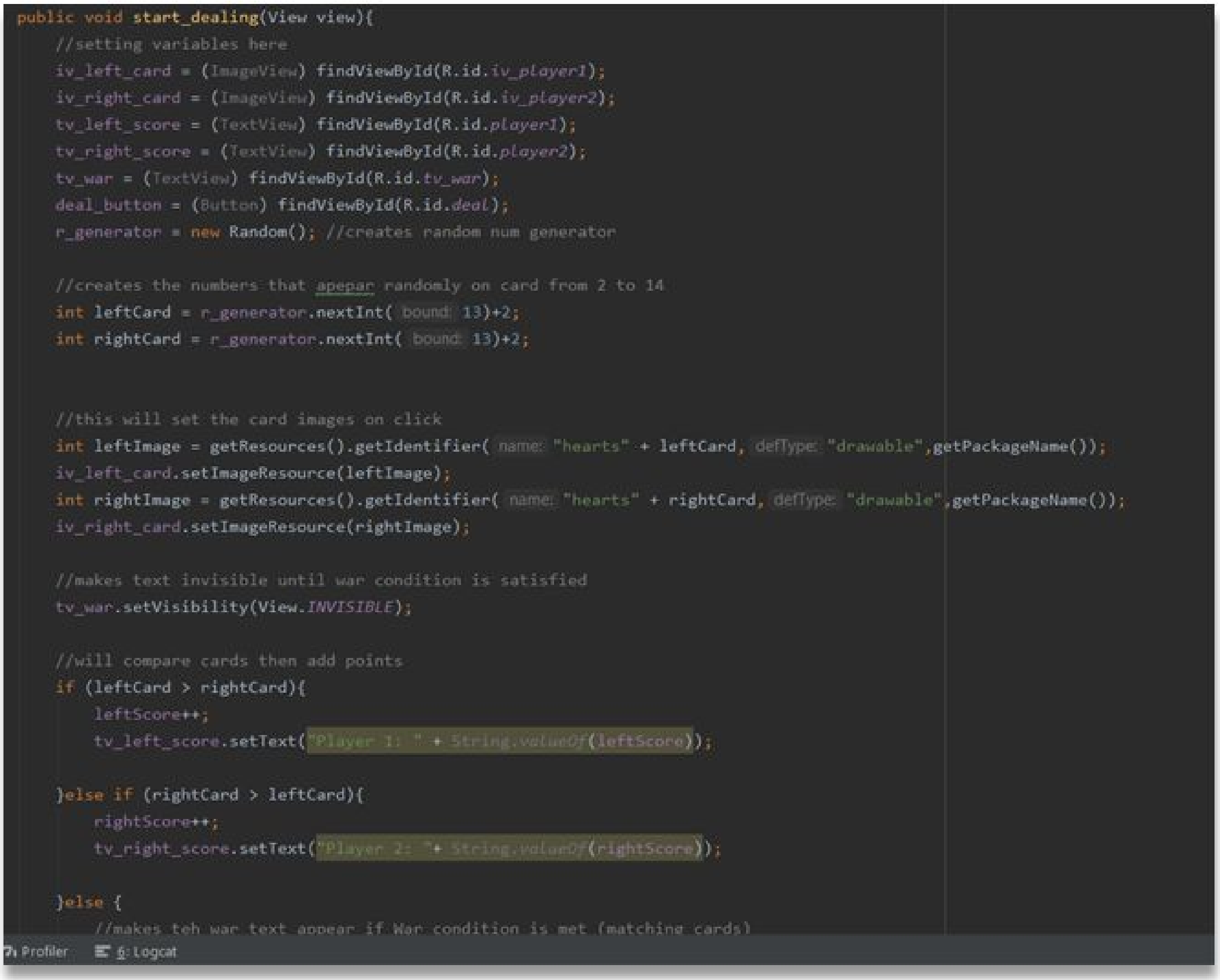


```
public class PlayVideo extends YouTubeBaseActivity implements YouTubePlayer.OnInitializedListener, YouTubePlayer.PlayerStateChangeListener, YouTube
    Intent intent;
    String videoIdPlaceholder; //holds video id
    YouTubePlayerView youTubePlayerView;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_play_video);
        intent = getIntent();
        videoIdPlaceholder = intent.getStringExtra( name: "videoId");
        //displays the video
        youTubePlayerView = findViewById(R.id.video_player);
        //intilizing view. Uses API key
        youTubePlayerView.initialize( s: "AIzaSyDZteUKqvy0W7CSvLUqDkKIcDrTpQ1RYHs", onInitializedListener: this);

    }

    @Override
    public void onInitializationSuccess(YouTubePlayer.Provider provider, YouTubePlayer youTubePlayer, boolean b) {

        youTubePlayer.setPlayerStateChangeListener(this);
        youTubePlayer.setPlaybackEventListener(this);

        //this will check if the video is playing
        if(!b){//checks if not blank (B)

            youTubePlayer.cueVideo(videoIdPlaceholder);
        }

    }
```

Code for Implementing Entertainment tab:



```
public void launch_war(View view){
    Intent intent = new Intent( packageContext: EntertainActivity.this, WarCardGame.class);
    startActivity(intent);
}

public void launch_reddit(View view){ //https://www.reddit.com/
    Intent browserIntent = new Intent(Intent.ACTION_VIEW, Uri.parse("https://www.reddit.com/"));
    startActivity(browserIntent);
    //Intent intent = new Intent(EntertainActivity.this, FbGame.class);
    //startActivity(intent);
}
public void launch_netflix(View view){
    Intent browserIntent = new Intent(Intent.ACTION_VIEW, Uri.parse("https://www.netflix.com/login"));
    startActivity(browserIntent);
}
public void launch_hulu(View view){
    Intent browserIntent = new Intent(Intent.ACTION_VIEW, Uri.parse("https://www.hulu.com/welcome"));
    startActivity(browserIntent);
}
public void launch_cr(View view){
    Intent browserIntent = new Intent(Intent.ACTION_VIEW, Uri.parse("https://www.crunchyroll.com/welcome/login"));
    startActivity(browserIntent);

}
public void launch_pr(View view){
    Intent browserIntent = new Intent(Intent.ACTION_VIEW, Uri.parse("https://www.primevideo.com/login"));
    startActivity(browserIntent);
}
```



```
public void start_dealing(View view){
    //setting variables here
    iv_left_card = (ImageView) findViewById(R.id.iv_player1);
    iv_right_card = (ImageView) findViewById(R.id.iv_player2);
    tv_left_score = (TextView) findViewById(R.id.player1);
    tv_right_score = (TextView) findViewById(R.id.player2);
    tv_war = (TextView) findViewById(R.id.tv_war);
    deal_button = (Button) findViewById(R.id.deal);
    r_generator = new Random(); //creates random num generator

    //creates the numbers that apepar randomly on card from 2 to 14
    int leftCard = r_generator.nextInt( bound: 13)+2;
    int rightCard = r_generator.nextInt( bound: 13)+2;


    //this will set the card images on click
    int leftImage = getResources().getIdentifier( name: "hearts" + leftCard, defType: "drawable",getPackageName());
    iv_left_card.setImageResource(leftImage);
    int rightImage = getResources().getIdentifier( name: "hearts" + rightCard, defType: "drawable",getPackageName());
    iv_right_card.setImageResource(rightImage);

    //makes text invisible until war condition is satisfied
    tv_war.setVisibility(View.INVISIBLE);

    //will compare cards then add points
    if (leftCard > rightCard){
        leftScore++;
        tv_left_score.setText("Player 1: " + String.valueOf(leftScore));

    }else if (rightCard > leftCard){
        rightScore++;
        tv_right_score.setText("Player 2: "+ String.valueOf(rightScore));

    }else {
        //makes teh war text appear if War condition is met (matching cards)
```

Project Links:

Github Link

The repository for our project can be found here. The wiki page is also provided in the readme.

Presentation Link

The presentation powerpoint for our project can be found here. It and instructions for view are also provided in the readme.

Video Demo

The application demonstration can be viewed here. The link is also provided in the readme.

OCEL.AI Webpage

The website can be viewed here. Information about the project is located in the storytelling, data sharing, application, and presentation tabs.

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