

2022 졸업작품 3조 최종 발표

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매일같이 착용하는 신발^{*} 이젠 <u>관리해야 할 때입니다</u>

세균

통기성이 부족한 신발 내부는 변기의 31배의 세균이 증식한다는 연구 결과

악취

세균 증식과 땀 분비는 신발 내부의 악취, 발냄새의 원인

감염

증식한 세균은 무좀과 같은 피부질환의 원인



MZ 세대

신발을 중요 아이템으로 여기는 MZ 세대의 영향



패션 관심 증가

유튜브 사용량 증가와 패션 유튜버의 영향



스니커헤드

한정판 운동화 수집 스니커헤드 문화



01 작품 소개

신발을 좋아하는 사람들을 위한 신발 관리 앱 V CARE KICKS



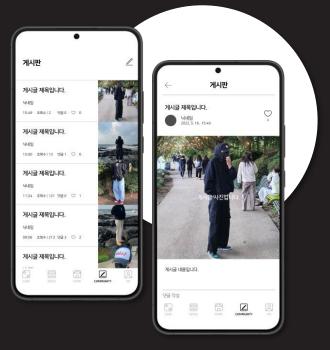
최신소식

스니커 시장의 최신소식을 한 눈에



슈드레서 원격 제어

슈드레서와 앱을 연동하여 원격 제어



커뮤니티 공간

신발을 좋아하는 사람들의 커뮤니티 공간

CARE KICKS의 개발 아이템 및 기술

Android Studio

- · 앱 개발 도구
- · DB 연동
- · Arduino 연동

Firebase

- · 사용자 데이터베이스 구축
- · 게시판 데이터베이스 구축

Arduino

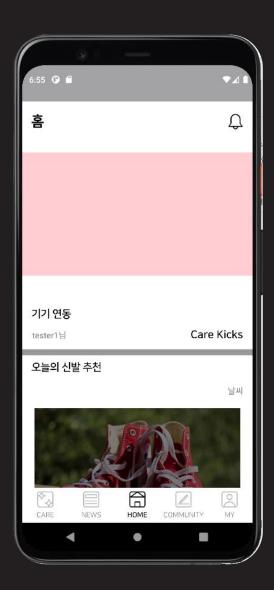
- · 살균/건조기 제작 도구
- · Bluetooth 연동



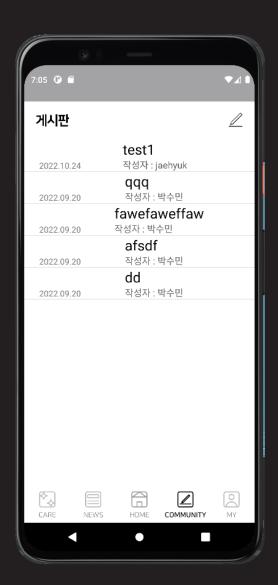
```
package com.example.testproject;
                                                                                  <?xml version="1.0" encoding="utf-8"?>
                                                                                  <androidx.constraintlayout.widget.ConstraintLayout
                                                                                    xmlns:android="http://schemas.android.com/apk/res/android"
                                                                                    xmlns:app="http://schemas.android.com/apk/res-auto"
public class MainActivity extends AppCompatActivity{
                                                                                    xmlns:tools="http://schemas.android.com/tools"
                                                                                    android:layout_width="match_parent"
  private DatabaseReference mDatabase;
                                                                                    android:layout_height="match_parent"
  //파이어베이스에 데이터를 추가나 조회하기 위해 사용
                                                                                    tools:context=".MainActivity">
   private FirebaseAuth firebaseAuth = null;
                                                                                    <LinearLayout
                                                                                       android:layout_width="match_parent"
  private SignInButton signInButton;
  private GoogleSignInClient mGoogleSignInClient;
                                                                                       android:layout_height="match_parent"
  private int RC SIGN IN= 9001;
                                                                                       android:scaleType="fitCenter"
                                                                                       android:orientation="vertical">
  ImageView signup, read, login;
  EditText mEmail, name, age, id, password;
                                                                                       <lmageView</pre>
   @Override
                                                                                         android:layout_width="300dp"
  protected void onCreate(Bundle savedInstanceState) {
                                                                                         android:layout_height="80dp"
    super.onCreate(savedInstanceState);
                                                                                         android:layout_gravity="center"
    setContentView(R.layout.activity_main);
                                                                                         android:layout margin="100dp"
                                                                                         android:scaleType="fitCenter"
    mDatabase = FirebaseDatabase.getInstance().getReference();
                                                                                         app:srcCompat="@drawable/login_logo"/>
    //데이터를 읽거나 쓰기위해서는 DatabaseReference의 인스턴스가 필요
     firebaseAuth = FirebaseAuth.getInstance();
                                                                                       <TextView
    signup = findViewById(R.id.buttonSignup); //회원가입 버튼
                                                                                         android:id="@+id/id"
                                                                                         android:layout width="wrap content"
      mEmail = findViewById(R.id.editEmail); // 이메일
                                                                                         android:layout_height="wrap_content"
      login = findViewById(R.id.buttonLogin);
                                                                                         android:layout_marginLeft="20dp"
    password = findViewById(R.id.editTextPassword);
                                                                                         android:layout_marginBottom="10dp"
                                                                                         android:scaleType="fitCenter"
                                                                                         android:text="아이디"/>
                                                                                       <EditText
     /* if (firebaseAuth.getCurrentUser() != null) {
       Intent intent = new Intent(getApplication(), HomeActivity.class);
                                                                                         android:id="@+id/editEmail"
                                                                                         android:layout_width="wrap_content"
                                                                                         android:layout_height="wrap_content"
                                                                                         android:layout marginBottom="30dp"
                                                                                         android:layout_marginLeft="20dp"
    GoogleSignInOptions gso = new
                                                                                         android:ems="17"
GoogleSignInOptions.Builder(GoogleSignInOptions.DEFAULT_SIGN_IN)
                                                                                         android:scaleType="fitCenter"
         .requestIdToken(getString(R.string.default_web_client_id))
                                                                                         android:inputType="textPersonName" />
         .requestEmail()
         .build();
```



```
<?xml version="1.0" encoding="utf-8"?>
package com.example.testproject;
                                                                                   <androidx.constraintlayout.widget.ConstraintLayout
                                                                                      xmlns:android="http://schemas.android.com/apk/res/android"
public class SignActivity extends AppCompatActivity {
                                                                                      xmlns:app="http://schemas.android.com/apk/res-auto"
                                                                                      xmlns:tools="http://schemas.android.com/tools"
                                                                                      android:layout_width="match_parent"
  private FirebaseAuth firebaseAuth;
  EditText mEmailText, mPasswdText, mPasswdTextCheck, mName:
                                                                                      android:layout_height="match_parent"
  ImageView buttonSignup;
                                                                                      tools:context=".SignActivity">
  @Override
                                                                                      <ImageView</pre>
                                                                                        android:id="@+id/backbtn"
  protected void onCreate(Bundle savedInstanceState) {
                                                                                        android:layout_width="30dp"
    super.onCreate(savedInstanceState);
                                                                                        android:layout_height="30dp"
    setContentView(R.layout.activity_sign);
                                                                                        app:layout constraintBottom toBottomOf="parent"
    firebaseAuth = FirebaseAuth.getInstance();
                                                                                        app:layout_constraintEnd_toEndOf="parent"
                                                                                        app:layout_constraintHorizontal_bias="0.046"
                                                                                        app:layout_constraintStart_toStartOf="parent"
    mEmailText =findViewById(R.id.editid);
                                                                                        app:layout_constraintTop_toTopOf="parent"
    mPasswdText = findViewById(R.id.editpwd);
    mPasswdTextCheck = findViewById(R.id.editpwdc);
                                                                                        app:layout constraintVertical bias="0.02"
                                                                                        app:srcCompat="@drawable/backbutton" />
    mName = findViewById(R.id.editsname):
    buttonSignup = findViewById(R.id.buttonSign);
                                                                                      <lmageView
                                                                                        android:id="@+id/signt"
    buttonSignup.setOnClickListener(new View.OnClickListener() {
                                                                                        android:layout_width="150dp"
       @Override
                                                                                        android:layout_height="70dp"
       public void onClick(View v) {
                                                                                        app:layout_constraintBottom_toBottomOf="parent"
                                                                                        app:layout_constraintEnd_toEndOf="parent"
         final String email = mEmailText.getText().toString().trim();
                                                                                        app:layout_constraintHorizontal_bias="0.069"
         String pwd = mPasswdText.getText().toString().trim();
         String pwdcheck = mPasswdTextCheck.getText().toString().trim();
                                                                                        app:layout constraintStart toStartOf="parent"
                                                                                        app:layout_constraintTop_toTopOf="parent"
                                                                                        app:layout_constraintVertical_bias="0.1"
         if (pwd.equals(pwdcheck)){
                                                                                        app:srcCompat="@drawable/signtitle" />
firebaseAuth.createUserWithEmailAndPassword(email,pwd).addOnComplet
eListener(SignActivity.this, new OnCompleteListener<AuthResult>() {
                                                                                      <TextView
                                                                                        android:id="@+id/sname"
                                                                                        android:layout_width="wrap_content"
              public void onComplete(@NonNull Task<AuthResult> task) {
                                                                                        android:layout_height="wrap_content"
                                                                                        android:fontFamily="@font/nanum3"
                if (task.isSuccessful()){
                   FirebaseUser user = firebaseAuth.getCurrentUser();
                                                                                        android:text="이름"
                   String email = user.getEmail();
                                                                                        app:layout_constraintBottom_toBottomOf="parent"
                                                                                        app:layout_constraintEnd_toEndOf="parent"
                   String uid = user.getUid();
                   String name = mName.getText().toString().trim();
```



```
package com.example.testproject;
                                                                                  <?xml version="1.0" encoding="utf-8"?>
                                                                                  <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
                                                                                    xmlns:app="http://schemas.android.com/apk/res-auto"
                                                                                    xmlns:tools="http://schemas.android.com/tools"
public class HomeActivity extends AppCompatActivity {
                                                                                    android:layout_width="match_parent"
                                                                                    android:layout_height="match_parent"
 private final long finishtimeed = 1000;
                                                                                    tools:context=".HomeActivity">
  private long presstime = 0;
                                                                                    <RelativeLayout
  private DatabaseReference mDatabase;
                                                                                      android:id="@+id/topbar"
                                                                                      android:layout_width="wrap_content"
  private FirebaseAuth firebaseAuth;
                                                                                       android:layout_height="wrap_content"
  private ViewPager2 mPager;
                                                                                      android:background="#ffffff"
  private FragmentStateAdapter pagerAdapter;
                                                                                       android:paddingBottom="20dp">
  private int num page = 4;
  private CircleIndicator3 mIndicator;
                                                                                       </mageView</pre>
                                                                                         android:id="@+id/bell icon"
  private TextView text_out;
                                                                                         android:layout_width="26dp"
  TextView textViewCare, textViewNews, textViewHome, textViewCom, textViewMy, textViewNamdlegid:layout_height="26dp"
  ImageView imageViewCare, imageViewNews, imageViewHome, imageViewCom, imageViewIddroid:layout_alignParentRight="true"
                                                                                         android:layout_marginTop="21dp"
  static RequestQueue requestQueue;
                                                                                         android:layout_marginRight="16dp"
                                                                                         android:src="@drawable/alerticon" />
  String uid:
                                                                                       <TextView
  @Override
                                                                                         android:id="@+id/hometext"
  protected void onCreate(Bundle savedInstanceState) {
                                                                                         android:layout_width="wrap_content"
    super.onCreate(savedInstanceState);
                                                                                         android:layout_height="wrap_content"
    setContentView(R.layout.activity_home);
                                                                                         android:layout_marginLeft="16dp"
                                                                                         android:layout_marginTop="20dp"
    textViewName =findViewById(R.id.textViewName);
                                                                                         android:fontFamily="@font/nanum1"
    mPager = findViewById(R.id.viewpager);
                                                                                         android:text="홈"
                                                                                         android:textColor="#000000"
    pagerAdapter = new MyAdapter(this, num_page);
                                                                                         android:textSize="24sp" />
    mPager.setAdapter(pagerAdapter);
                                                                                    </RelativeLayout>
    mIndicator = findViewById(R.id.indicator);
    mIndicator.setViewPager(mPager);
                                                                                    <ScrollView
    mIndicator.createIndicators(num_page,0);
                                                                                       android:layout_width="match_parent"
    //ViewPager Setting
                                                                                      android:layout_height="match_parent"
    mPager.setOrientation(ViewPager2.ORIENTATION_HORIZONTAL);
                                                                                       android:layout_below="@+id/topbar"
                                                                                       android:background="#999999">
    mPager.setCurrentItem(500); //시작 지점
```



```
package com.example.testproject;
                                                                               <?xml version="1.0" encoding="utf-8"?>
                                                                               <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
                                                                                 xmlns:app="http://schemas.android.com/apk/res-auto"
                                                                                 xmlns:tools="http://schemas.android.com/tools"
public class BoardActivity extends AppCompatActivity {
                                                                                 android:layout_width="match_parent"
                                                                                 android:layout_height="match_parent"
  TextView textViewCare, textViewNews, textViewHome, textViewCom, textViewMqls;context=".BoardActivity">
  ImageView imageViewCare, imageViewNews, imageViewHome, imageViewCom, imageViewMy; <a href="RelativeLayout">RelativeLayout</a>
  String uid:
                                                                                   android:id="@+id/bd top"
                                                                                   android:layout width="wrap content"
                                                                                   android:layout_height="wrap_content"
  private DatabaseReference mDatabase;
                                                                                   android:paddingBottom="20dp">
  //파이어베이스에 데이터를 추가나 조회하기 위해 사용
   private FirebaseAuth firebaseAuth;
                                                                                    <lmageView
                                                                                     android:id="@+id/write icon"
                                                                                     android:layout_width="24dp"
  ListView mainListView;
                                                                                     android:layout_height="24dp"
  ListAdapter listAdapter = null;
                                                                                     android:layout_alignParentRight="true"
  ImageView buttonWrtie;
                                                                                     android:layout marginTop="19dp"
                                                                                     android:layout_marginRight="20dp"
  ArrayList<String> arr_uid = null;
                                                                                     android:src="@drawable/writeicon"/>
  ArrayList<String> arr_board_key = null;
                                                                                    <TextView
                                                                                     android:id="@+id/community"
  @Override
                                                                                     android:layout width="wrap content"
  protected void onCreate(Bundle savedInstanceState) {
                                                                                     android:layout_height="wrap_content"
    super.onCreate(savedInstanceState);
                                                                                     android:layout_marginLeft="20dp"
     setContentView(R.layout.activity board);
                                                                                     android:layout_marginTop="20dp"
                                                                                     android:fontFamily="@font/nanum1"
                                                                                     android:text="게시판"
                                                                                     android:textAppearance="@style/TextAppearance.AppCompat.Large"
     mDatabase = FirebaseDatabase.getInstance().getReference();
                                                                                     android:textColor="#000000" />
     //데이터를 읽거나 쓰기위해서는 DatabaseReference의 인스턴스가 필요
                                                                                 </RelativeLayout>
     firebaseAuth = FirebaseAuth.getInstance();
                                                                                 <ListView
                                                                                   android:id="@+id/list_mainListView"
     mainListView = (ListView) findViewById(R.id.list_mainListView);
                                                                                   android:layout_width="match_parent"
     listAdapter = new ListAdapter();
                                                                                   android:layout_height="match_parent"
                                                                                   android:layout_below="@+id/bd_top"></ListView>
     arr_uid = new ArrayList<>()
                                                                                 <androidx.constraintlayout.widget.ConstraintLayout
                                                                                   android:layout_width="match_parent"
     arr_board_key = new ArrayList<>();
                                                                                   android:layout_height="match_parent">
```



```
package com.example.testproject;
                                                                                 <?xml version="1.0" encoding="utf-8"?>
                                                                                 <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
                                                                                   xmlns:app="http://schemas.android.com/apk/res-auto"
                                                                                   xmlns:tools="http://schemas.android.com/tools"
public class ProfileActivity extends AppCompatActivity {
                                                                                   android:layout_width="match_parent"
                                                                                   android:layout_height="match_parent">
  private DatabaseReference mDatabase;
                                                                                   <ImageView</pre>
  //파이어베이스에 데이터를 추가나 조회하기 위해 사용
                                                                                     android:id="@+id/imageViewBack"
  private FirebaseAuth firebaseAuth;
                                                                                     android:layout_width="24dp"
                                                                                     android:layout_height="24dp"
  EditText editTextID. editTextName:
                                                                                      android:layout_marginLeft="16dp"
                                                                                      android:layout_marginTop="21dp"
  ImageView imageViewBack;
                                                                                      app:srcCompat="@drawable/backbutton" />
  TextView textViewChange, textViewChangeID, textViewLogout, textViewDel, textViewNameChange;
                                                                                     android:id="@+id/edit_title"
  Button buttonNameChange, buttonPassWordChange, buttonChangeld;
                                                                                     android:layout_width="wrap_content"
                                                                                      android:layout_height="wrap_content"
  String uid, email, name:
                                                                                     android:layout centerHorizontal="true"
  String newEmail, newName;
                                                                                      android:layout_marginTop="20dp"
                                                                                      android:fontFamily="@font/nanum1"
                                                                                     android:text="회원정보 수정"
  @Override
                                                                                     android:textAppearance="@style/TextAppearance.AppCompat.Large"
  protected void onCreate(Bundle savedInstanceState) {
                                                                                      android:textColor="@color/black" />
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_profile);
                                                                                   <TextView
                                                                                      android:id="@+id/profile info"
                                                                                     android:layout_width="wrap_content"
    firebaseAuth = FirebaseAuth.getInstance();
                                                                                      android:layout_height="wrap_content"
    final FirebaseUser user = firebaseAuth.getCurrentUser();
                                                                                      android:text="계정정보"
                                                                                      android:fontFamily="@font/nanum2"
    mDatabase = FirebaseDatabase.getInstance().getReference();
                                                                                      android:textColor="#000000"
                                                                                      android:textAppearance="@style/TextAppearance.AppCompat.Medium"
    editTextID = findViewById(R.id.editTextTextEmailAddressId);
                                                                                      android:layout_below="@+id/edit_title"
    editTextName = findViewById(R.id.editTextTextPersonName);
                                                                                      android:layout_marginTop="40dp"
                                                                                      android:layout_centerHorizontal="true" />
    imageViewBack = findViewByld(R.id.imageViewBack);
                                                                                   <TextView
    buttonPassWordChange = findViewById(R.id.pw_change_btn);
                                                                                      android:id="@+id/my_nickname"
    buttonChangeId = findViewById(R.id.id_change_btn);
                                                                                     android:layout_width="wrap_content"
                                                                                      android:layout_height="wrap_content"
    textViewLogout = findViewById(R.id.textViewLogout);
```

CARE KICKS 앱과 기기 시연 영상





