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ANDROID DEVELOPMENT WITH KOTLIN

WEEK 2 – ASSIGNMENT

BLOOD BANK APPLICATION

CODE:

DonorDetails.kt –

```
package com.example.blooddonationapp
import android.os.Bundle
import androidx.fragment.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
import android.widget.Toast
import androidx.navigation.fragment.findNavController
import com.google.firebase.firestore.FirebaseFirestore
import kotlinx.android.synthetic.main.fragment_donor_details.*
import kotlinx.android.synthetic.main.fragment_donor_details.view.*
class DonorDetails : Fragment() {
    private lateinit var db:FirebaseFirestore
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
    }
    override fun onCreateView(
        inflater: LayoutInflater, container: ViewGroup?,
        savedInstanceState: Bundle?
    ): View? {
        val view= inflater.inflate(R.layout.fragment_donor_details,
container, false)
        val Continue=view.Continue
        db= FirebaseFirestore.getInstance()
        Continue.setOnClickListener {
            if(checking()){
                val name=name.text.toString()
                val phone=phone.text.toString()
                val location=location.text.toString()
                val bgroup=bgroup.text.toString()
                val donor= hashMapOf(
                    "Name" to name,
                    "Phone" to phone,
                    "Location" to location,
                    "Bgroup" to bgroup
                )
                val Donors=db.collection("DONORS")
                Donors.document(name).set(donor)
                Toast.makeText(activity?.applicationContext,"Donor
Successfully added to
                        Database",Toast.LENGTH_SHORT).show()
```

```
findNavController().navigate(R.id.action_donorDetails_to_donorThankyou)
            }
            else{
                Toast.makeText(activity?.applicationContext,"Fill the Fiels
                        Correctly",Toast.LENGTH_SHORT).show()
            }
        }
        return view
    }
    private fun checking():Boolean{
        if(name.text.toString().trim { it<=' '}.isNotEmpty()
            && phone.text.toString().trim { it<=' '}.isNotEmpty()
            && location.text.toString().trim { it<=' '}.isNotEmpty()
            && bgroup.text.toString().trim { it<=' '}.isNotEmpty()) {
            return true
        }
        return false
    }
}
```

MainActivity.kt –

```
package com.example.blooddonationapp
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import androidx.navigation.NavController
class MainActivity : AppCompatActivity() {
    private lateinit var navController: NavController
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
    }
}
```

ListofDonors.kt –

```
package com.example.blooddonationapp
import android.os.Bundle
import android.util.Log
import androidx.fragment.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
import android.widget.Toast
import androidx.navigation.fragment.findNavController
import androidx.recyclerview.widget.LinearLayoutManager
import androidx.recyclerview.widget.RecyclerView
import com.google.firebase.firestore.*
import kotlinx.android.synthetic.main.donor_card.*
import kotlinx.android.synthetic.main.donor_card.view.*
import kotlinx.android.synthetic.main.fragment_list_of_donors.view.*
class ListOfDonors : Fragment() {
    private lateinit var recyclerView: RecyclerView
    private lateinit var donorarraylist: ArrayList<donor>
    private lateinit var myadapter: Adapter
    private lateinit var db: FirebaseFirestore
    override fun onCreate(savedInstanceState: Bundle?) {
```

```
        super.onCreate(savedInstanceState)
    }

    override fun onCreateView(
        inflater: LayoutInflater,
        container: ViewGroup?,
        savedInstanceState: Bundle?
    ): View? {
        val view = inflater.inflate(
            R.layout.fragment_list_of_donors,
            container,
            false
        )
        recyclerView = view.recycler_view
        recyclerView.layoutManager =
            LinearLayoutManager(this.context)
        recyclerView.setHasFixedSize(true)
        donorarraylist = arrayListOf()
        myadapter = Adapter(donorarraylist)
        recyclerView.adapter = myadapter
        EventChangeListener()
        return view
    }

    private fun EventChangeListener() {
        db = FirebaseFirestore.getInstance()
        db.collection("DONORS")
            .addSnapshotListener(object :
                EventListener<QuerySnapshot> {
                override fun onEvent(
                    value: QuerySnapshot?,
                    error: FirebaseFirestoreException?
                ) {
                    if (error != null) {
                        Log.e(
                            "Firestore",
                            error.message.toString()
                        )
                        return
                    }
                    for (dc: DocumentChange in value?.documentChanges!!) {
                        if (dc.type == DocumentChange.Type.ADDED) {
                            donorarraylist.add(
                                dc.document.toObject(
                                    donor::class.java
                                )
                            )
                        }
                    }
                    myadapter.notifyDataSetChanged()
                }
            })
    }
}
```

LoginScreen.kt –

```
package com.example.blooddonationapp
import android.os.Bundle
import androidx.fragment.app.Fragment
```

```
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
import android.widget.Toast
import androidx.navigation.fragment.findNavController
import com.google.firebase.auth.FirebaseAuth
import kotlinx.android.synthetic.main.fragment_login_screen.*
import kotlinx.android.synthetic.main.fragment_login_screen.view.*
class login_screen : Fragment() {
    private lateinit var auth:FirebaseAuth
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
    }
    override fun onCreateView(
        inflater: LayoutInflater, container: ViewGroup?,
        savedInstanceState: Bundle?
    ): View? {
        val view= inflater.inflate(R.layout.fragment_login_screen,
container, false)
        val login=view.login
        val register=view.register
        auth= FirebaseAuth.getInstance()
        register.setOnClickListener {

findNavController().navigate(R.id.action_login_screen_to_existin_Login)
        }
        login.setOnClickListener {
            if(checking()){
                val email=email.text.toString()
                val password=password.text.toString()
                auth.signInWithEmailAndPassword(email, password)
                    .addOnCompleteListener(requireActivity()){ task->
                        if(task.isSuccessful){

Toast.makeText(activity?.applicationContext,"Login
                                    Succesful",Toast.LENGTH_SHORT).show()

findNavController().navigate(R.id.action_login_screen_to_optionPage)
                        }
                        else{

Toast.makeText(activity?.applicationContext,"Wrong
                                    Details",Toast.LENGTH_SHORT).show()
                        }
                    }
            }
            else{
                Toast.makeText(activity?.applicationContext,"Enter the
                        Details",Toast.LENGTH_SHORT).show()
            }
        }
        return view
    }
    private fun checking(): Boolean {
        if(email.text.toString().trim { it<=' ' }.isNotEmpty()
            && password.text.toString().trim { it<=' ' }.isNotEmpty()){
            return true
        }
        return false
    }
}
```

Existing_Login.kt –

```
package com.example.blooddonationapp
import android.os.Bundle
import androidx.fragment.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
import android.widget.Toast
import androidx.navigation.fragment.findNavController
import com.google.firebase.auth.FirebaseAuth
import com.google.firebase.firestore.FirebaseFirestore
import kotlinx.android.synthetic.main.fragment_existin__login.*
import kotlinx.android.synthetic.main.fragment_existin__login.view.*
class existin_Login : Fragment() {
    private lateinit var auth:FirebaseAuth
    private lateinit var db: FirebaseFirestore
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
    }
    override fun onCreateView(
        inflater: LayoutInflater, container: ViewGroup?,
        savedInstanceState: Bundle?
    ): View? {
        val view=inflater.inflate(R.layout.fragment_existin__login,
container, false)
        val Continue=view.Continue
        auth= FirebaseAuth.getInstance()
        db= FirebaseFirestore.getInstance()
        Continue.setOnClickListener {
            if (checking()){
                val email=email.text.toString()
                val password=password.text.toString()
                val name=name.text.toString()
                val phone=phone.text.toString()
                val user= hashMapOf(
                    "Name" to name,
                    "Phone" to phone,
                    "email" to email
                )
                val Users=db.collection("USERS")
                val query=Users.whereEqualTo("email",email).get()
                    .addOnSuccessListener {
                            task->
                        if(task.isEmpty){

auth.createUserWithEmailAndPassword(email,password)
                                .addOnCompleteListener(requireActivity()){
                                        task->
                                    if(task.isSuccessful){
                                        Users.document(email).set(user)

findNavController().navigate(R.id.action_existin_Login_to_login_screen)
                                    }
                                    else{

Toast.makeText(activity?.applicationContext,"Authentication Failed",
                                            Toast.LENGTH_SHORT).show()
                                    }
                                }
                        }
```

```
                        else{

Toast.makeText(activity?.applicationContext,"User Already Exists",
                                Toast.LENGTH_SHORT).show()

findNavController().navigate(R.id.action_existin_Login_to_login_screen)
                        }
                    }
                }
                else{
                    Toast.makeText(activity?.applicationContext,"Enter the
Details",
                        Toast.LENGTH_SHORT).show()
                }
            }
            return view
        }
        private fun checking(): Boolean {
            if(name.text.toString().trim { it<=' ' }.isNotEmpty()
                && phone.text.toString().trim { it<=' ' }.isNotEmpty()
                && email.text.toString().trim { it<=' ' }.isNotEmpty()
                && password.text.toString().trim { it<=' ' }.isNotEmpty()){
                return true
            }
            return false
        }
}
```

ThankYou.kt –

```
package com.example.blooddonationapp
import android.os.Bundle
import androidx.fragment.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
// TODO: Rename parameter arguments, choose names that match
// the fragment initialization parameters, e.g. ARG_ITEM_NUMBER
private const val ARG_PARAM1 = "param1"
private const val ARG_PARAM2 = "param2"
/**
 * A simple [Fragment] subclass.
 * Use the [thankyou.newInstance] factory method to
 * create an instance of this fragment.
 */
class thankyou : Fragment() {
    // TODO: Rename and change types of parameters
    private var param1: String? = null
    private var param2: String? = null
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        arguments?.let {
            param1 = it.getString(ARG_PARAM1)
            param2 = it.getString(ARG_PARAM2)
        }
    }

    override fun onCreateView(
        inflater: LayoutInflater,
        container: ViewGroup?,
```

```
        savedInstanceState: Bundle?
    ): View? {
        // Inflate the layout for this fragment
        return inflater.inflate(
            R.layout.fragment_thankyou,
            container,
            false
        )
    }

    companion object {
        /**
         * Use this factory method to create a new instance of
         * this fragment using the provided parameters.
         *
         * @param param1 Parameter 1.
         * @param param2 Parameter 2.
         * @return A new instance of fragment thankyou.
         */
        // TODO: Rename and change types and number of parameters
        @JvmStatic
        fun newInstance(
            param1: String,
            param2: String
        ) =
            thankyou().apply {
                arguments = Bundle().apply {
                    putString(ARG_PARAM1, param1)
                    putString(ARG_PARAM2, param2)
                }
            }
    }
}
```

OUTPUT SCREENSHOT –