**> Very useful link for Interview Questions :**

[**https://github.com/amitshekhariitbhu/android-interview-questions**](https://github.com/amitshekhariitbhu/android-interview-questions)

[**https://www.interviewbit.com/android-interview-questions/**](https://www.interviewbit.com/android-interview-questions/)- Can refer this also.

**> Silicon IT Hub, Prahladnagar – Verbal – 5.3.24.**

Q - What is need of Paw Garage apart from data entry of admission, vaccination etc.

Ans.

- Add animal details (like name, location, photo) **onsite**. So no need to write these details onsite and then do data entry at treatment center. So it save the time.

- **Remote pick up location**, that we don’t know, can be saved on one click. Which is in last **used to drop** the animal on that place. We can directly open this location on google map and reach there easily.

- **Notificatoins** will be sent to all users when any new animal is admitted.

- We can **schedule the vaccination and deworming** at specified intervals. And **reminders** will be active for that.

- **Reports** : User can generate reports based on different inputs provided. User can also download these reports in excel sheet in their device.

Q - When we need try, catch, finaly.

Ans - <https://www.javatpoint.com/kotlin-exception-handling>

Q - How to track users live location by programming.

Ans - <https://developer.android.com/develop/sensors-and-location/location/request-updates>

- <https://www.youtube.com/watch?v=Jj14sw4Yxk0>

- <https://www.youtube.com/watch?v=ycBVe3iYtqQ>

val fusedLocationProviderClient = FusedLocationProviderClient(this)  
  
fusedLocationProviderClient.requestLocationUpdates(LocationRequest.create().setPriority(LocationRequest.PRIORITY\_HIGH\_ACCURACY),  
 object : LocationCallback() {  
 override fun onLocationResult(locationResult: LocationResult) {  
 *// Get the last known location.*  
 val location = locationResult.lastLocation  
  
 *// Update the UI with the location.*  
 *// ...*  
 }  
 })

Q - In Kurdistan Borsa, if notification is off, then what is the other way that user can know about prize changes in borsa.

Q - What is the advantage of listview over recyclerview.

Ans – Mentioned in Word file- Revision- after Oceanmtech

Q - What is polymorphism. Method Overloading, Method Overriding.

Ans - <https://www.javatpoint.com/java-oops-concepts>

Q - How to swap two numbers without any predefined functions.

Ans - <https://www.geeksforgeeks.org/java-program-to-swap-two-variables/>

Q – List the things by which app can be rejected from playstore.

- <https://www.swing2app.com/blog/top-reasons-your-app-could-be-rejected-by-google-play-store-and-ways-to-avoid-them/>

- <https://www.liainfraservices.com/blog/12-reasons-why-android-or-ios-apps-get-rejected-by-the-app-store/>

Ans - Copyright issues. Similar like copy of app name, logo, content etc.

- Inappropriate app content (graphic violence, sexual content, racism)

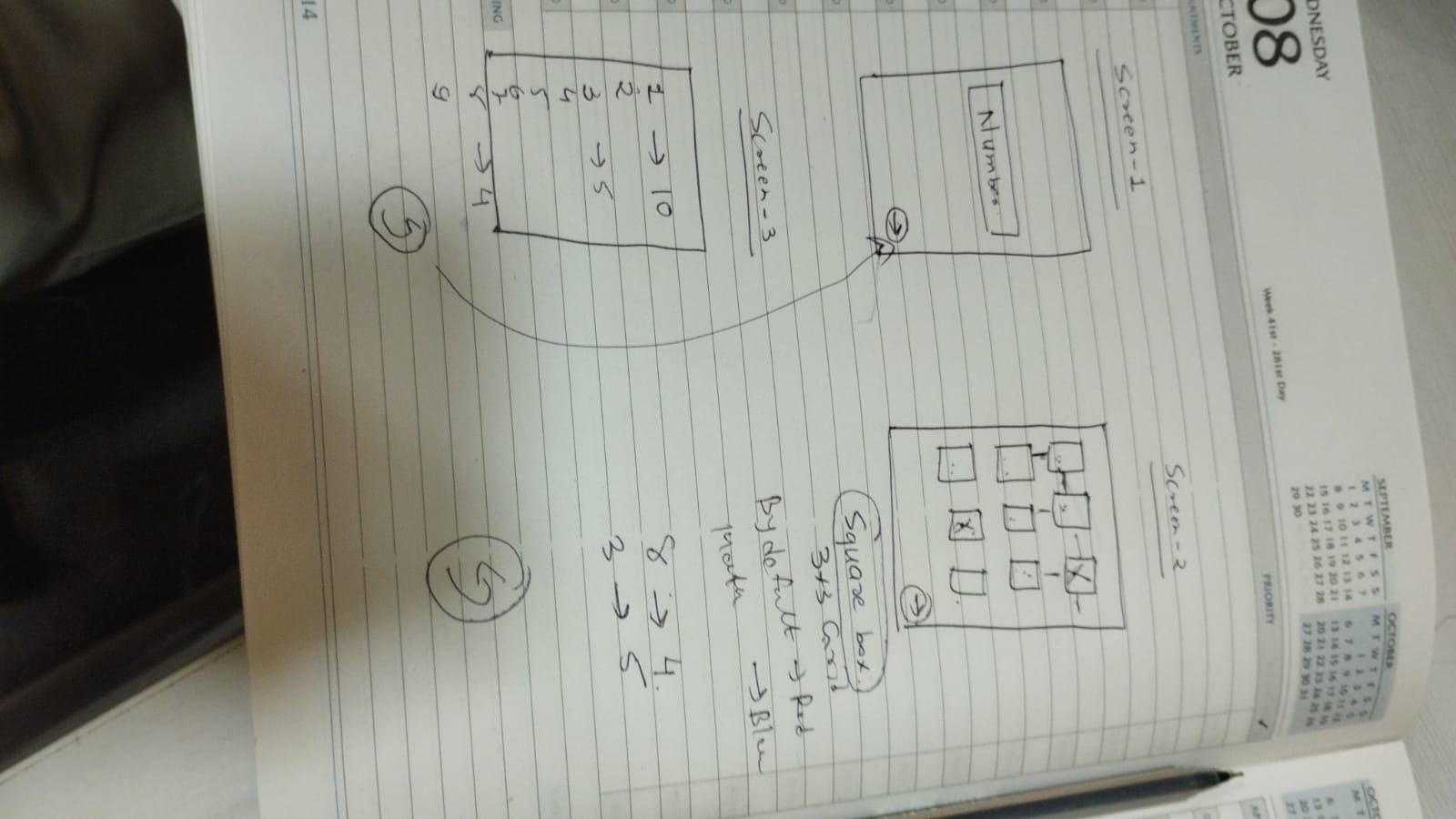
- False information provided during app submission.

- Suspicious products - The Play Store will reject your mobile app outright if it poses any threat to the user’s data security or privacy. Google will detect and reject your app if it contains malware, a Trojan horse, or any other flaw or virus that is mentioned in the description or within the app.

- Several bugs and crashes.

- Not providing proper privacy policy.

**> Silicon IT Hub, Prahladnagar – Practicle – 6.3.24**

****

- Enter any number in first screen.

- Second screen - If entered number is 4 then 4 row and 4 columns of square boxes should be created. All boxes width & height should be same. It should be seen equal quality in any screen sizes (i.e. any mobile screen size, tablet etc).

- Any random box will be selected automatically when we open this screen. We have to find this box by clicking on it. Suppose position of this box is 8. If we reach this box by clicking 4 other boxes, then we have to save the position 8 and clicking count 4. The box at position 8 will be blue and boxes which we have clicked to reach this box will be red. Then box in blue will not be clickable and it will not be counted on click. And randomly other box will be selected automatically. The same as above we have to find this box by clicking other boxes and save the position and counts.

Then we click next and move to screen 3.

- Screen 3 – We have to show all the positions of boxes and against them the click count to reach this box.

Q – How to build responsive app design, so that design will look same in all screen sizes ?

Ans –

- <https://www.youtube.com/watch?v=5lSQcJjZPFs>

- <https://developer.android.com/guide/topics/large-screens/support-different-screen-sizes>

- <https://developer.android.com/develop/ui/views/layout/responsive-adaptive-design-with-views>

- First principle to build responsive layout is to use constraint layout.

- Do not give hardcoded dimension to any view.

**> Hashtechy (Currently), YMCA – Verbal – 9.3.24**

Q - What is the function of **new** keyword in java.

- The new keyword in Java is used to create an object of a class. The new keyword in Java is used to allocate memory for the object on the heap, the memory space where objects are stored.

Q – What are the different Data types in Java & Kotlin ?

Ans – **Datatype** - a data type is a classification that specifies what type of data a variable can hold.

There are 2 type of datatype :

- **Primitive Datatype** – They are predefined by the Java language and cannot be changed. We can not change the size/range of it. They store the value of variable in memory.

- Examples – byte, short, char, boolean, int, long, float, double.

- **Non primitive datatype** - Non-primitive data types or reference data types refer to instances or objects. We can change the size/range of it. They cannot store the value of a variable directly in memory. They store a memory address of the variable.

- Examples – Class, Array, Strings

- **Differences :**

* Primitive types are predefined (already defined) in Java. Non-primitive types are created by the programmer and is not defined by Java (except for String).
* Non-primitive types can be used to call methods to perform certain operations, while primitive types cannot.
* A primitive type has always a value, while non-primitive types can be null.
* A primitive type starts with a lowercase letter, while non-primitive types starts with an uppercase letter.
* Primitive can store value of one type, non premitive can store value of more than one type. Ex- Array, Class.
* Primitive- size is fixed. Non primitive- size is not fixed.

Q – What is the range if int datatype ?

Q - OOPs concepts :

Q - Why multiple inheritance is not possible in java ?

Q - a = 123. Then how can we add those number to get answer 6 ?

Ans - <https://www.javatpoint.com/sum-of-digits-of-a-number-in-java>

Q - array = [1,2,3,4,5…..10]. How can we obtain even numbers from this ?

Ans - <https://www.javatpoint.com/java-program-to-display-even-numbers-from-1-to-100>

Q - array = [2,9,4,3,8,5,6]. How can we sort this arraylist in increamental numbers ?

Ans - <https://www.javatpoint.com/how-to-sort-arraylist-in-java>

Q - What is ASCII ?

Ans - ASCII represents a numeric value for each character, such as 65 is a value of A.

Q - Scope functions in kotlin.

Ans - <https://www.geeksforgeeks.org/kotlin-scope-function/>

Q - Use of Ternary Operator :

- In Kotlin, if is an expression: it returns a value. Therefore, there **is no ternary** operator (condition ? then : else) because ordinary if works fine in this role.

e.g. var max = if (a > b) a else b.

- Below is the example in Java :

num1 = 10;

num2 = 20;

res=(num1>num2) ? (num1+num2):(num1-num2)

Since num1<num2,

the second operation is performed

res = num1-num2 = -10

Q - What is the function of repository in MVVM ?

Ans - In Android's MVVM architecture, a repository class provides a clean API for accessing data. It can gather data from different sources, such as REST APIs, cache, or local database storage.

Q – What is Flow in kotlin ?

Q - What are Jetpack Components ?

Ans - Jetpack is a suite of libraries to help developers follow best practices, reduce boilerplate code, and write code that works consistently across Android versions and devices so that developers can focus on the code they care about.

Q - What are coroutines ? Why we use it instead of async task ?

Ans - Coroutines offer advantages such as structured concurrency, lightweight execution, and better exception handling, and better performance.

Q – What are Intent Filters ?

Ans – Intent Filters are an expression in an app’s Manifest.xml file that specifies the type of intents that the component would like to receive. It is used when we want to send email, make a call, send message, share app link etc.

Q - Difference between Retrofit & Volley ?

|  |  |
| --- | --- |
| **Retrofit** | **Volley** |
| 1. Retrofit can parse many other types of responses automatically like:  Boolean – Web API response needs to be a boolean.  Integer – Web API response needs to be an integer.  Date– Web API response should be a Long format date.  String – Web API response needs to be in String format.  Object – Web API response needs to be in a JSON object.  Collections – Web API response needs to be in a String Format.  Image Loading. | 1. StringRequest – This type of request converts the response into a String.  JsonObjectRequest – This type of request and response is automatically converted into a JSONObject.  JsonArrayRequest – This type of request and response is automatically converted into a JSONArray.  ImageRequest – This type of request converts the response into a decoded bitmap. |
| 2. Retrofit does not support caching. | 2. Caching: Android volley has a flexible caching mechanism. When a request is made through volley first the cache is checked for an appropriate response if it is found there than it is returned and parsed else network hit is made. |
| 3. Retrofit does not support any retrying mechanism. But it can be achieved manually by doing some extra code. | 3. Retrying Mechanism: With volley, we can set a retry policy using the setRetryPolicy method. It supports the customized request timeout, number of retries, and backoff multiplier. |
| 4. On the other hand, Retrofit has full support for Post Requests and Multipart uploads. | 4.Post Requests and Multipart Uploads: Volley supports both posts requests and multipart uploads but for post requests, we have to convert our java objects to JSONObject.Also for multipart uploads, we have to do some extra code and use some additional classes |

Q – What is the use of .enque() in Retrofit ?

Ans - Asynchronously send the request and notify callback of its response or if an error occurred talking to the server, creating the request, or processing the response.

Q - What are the local databases ?

Ans – Room, SQLite, Realm, SharedPreferences etc.

Q - For which you used Google Maps api ?

Ans – To get the current location in paw garage app.

Q - Have you worked in AWS, Sockets ?

Ans –

**AWS** – AWS (Amazone Web Services) is Cloud computing service, which provides a simple way to access servers, storage, databases and a broad set of application services over the internet. A cloud services platform such as Amazon Web Services owns and maintains the network-connected hardware required for these application services, while you provision and use what you need via a web application.

**Socket** - A socket is an endpoint for sending or receiving data across a network.

- Socket programming is a way to enable communication between two devices on a network. In the context of Android development, it allows Android devices to communicate over the internet or a local network.

Q - Have you worked in any Social Media app ?

Ans – At home, made a small Chatting App using firebase database.

Q - How you convert Model class object in Json string ?

val json: String = Gson().toJson(modelClassObject)

Q - Why we use Work manager & Paging3 ?

**> Innvonix Technologies (Science city rd), – Verbal – 11.3.24**

Q – OOPs concepts. Explain Inheritance & Abstraction.

Ans – Class - Class is a group of variables of different data types and a group of methods.

Object - An Object can be defined as an instance of a class. An object contains an address and takes up some space in memory.

OOPs concepts - <https://www.javatpoint.com/java-oops-concepts>

Inheritance - <https://www.javatpoint.com/inheritance-in-java>

Abstraction - <https://www.javatpoint.com/abstract-class-in-java>

Q – Difference between Intrface and Abstract class.

Ans - <https://www.javatpoint.com/difference-between-abstract-class-and-interface>

Q – What is Method Overloading and Method Overriding ?

Ans - <https://www.javatpoint.com/method-overloading-in-java>

Q – Is there any way that we can only implement some methods of the interface in class?

Ans - The abstract class can be used to provide some implementation of the [interface](https://www.javatpoint.com/interface-in-java). In such case, the end user may not be forced to override all the methods of the interface.

Q – What is service ? If we kill the app, then background service will continue to work? If it will not continue then what is the other option ?

Ans – If we kill the aap, the background service will stop. We can use Work Manager to continue the background work when the app is killed.

Q – What are Broadcast Receivers ?

Q – Explain about Manifest file.

Q – When we use exported = true or false in andeoid manifest file ?

Ans - The **android:exported** [attribute](https://developer.android.com/guide/topics/manifest/activity-element#exported) sets whether a component (activity, service, broadcast receiver, etc.) can be launched by components of other applications:

* If true, any other app can access the activity and launch it by its exact class name.
* If false, only components of the same application, applications with the same user ID, or privileged system components can launch the activity.

Q – Where you can store API KEY securely, that it will not get exposed when we push our code to github ?

Q – What you know about gradle files ?

Ans – Mentioned in REVISION-after OCEANMTECH document.

Q – Do practice for Array Programs.

Ans - <https://www.geeksforgeeks.org/top-50-array-coding-problems-for-interviews/>

Q – How can we swap 2 numbers without using third variable ?

Q – val a = [4,3,8,7,9,1,5]. We want to get all the 2 numbers in pair, for which the adition is 10.

Ans - <https://www.geeksforgeeks.org/count-pairs-with-given-sum/>

Q – Difference between Retrofit and Volley. Why you use Retrofit more than Volley ?

Ans – Difference mentioned above in this document. Retrofit is faster then volley.

Q – During API call with coroutines, where you write the code for loader(progress bar) ?

Ans – In Start-O-Preneur project.

Q – What is “static”, “final” and “const” keywords.

Ans - <https://www.studytonight.com/kotlin/kotlin-variables-and-constants>

Q – Difference between Activity & Fragments.

Ans – Mentioned in REVISION-after OCEANMTECH document.

Q – Lifecycles of Activity & Fragments.

Ans – Mentioned in REVISION-after OCEANMTECH document.

Q – How you implement Single Activity architecture in app ?

Q – How Kotlin is better than java ?

Ans – Concise code, Null safety, Interoperability.

Q – What are the Access Modifiers in Java and Kotlin ?

Q – What are High level functions ?

Ans – Mentioned in TopicsExplanation document.

- <https://www.geeksforgeeks.org/kotlin-higher-order-functions/>

Q – Use of onCreate, onStart & onResume.

Ans – Mentioned in REVISION-after OCEANMTECH document.

**> Latitude Technolabs (Prahladnagar), – Verbal(Google Meet) – 14.3.24**

Q – What is Gradle wraper properties.?

Ans - To build a Gradle-based project, we need to have Gradle installed in our machine. However, if our installed version doesn’t match with the project’s version, we’ll probably face many incompatibility problems.

Gradle Wrapper, also called Wrapper in short, solves this problem. It’s a script that runs Gradle tasks with a project’s version. If the project’s version is not installed, Wrapper installs the required one.

Q – Use of XMLNS attribute in xml file.

Ans - An XMLNS is namespace. Which is a collection of names that can be used as element or attribute names in an XML document.

Q - Why setContentView is in onCreate. Use of it.

Ans - The setContentView() function in Android is used to set the layout for an Activity, and is often called in the onCreate method of activity to set the initial layout. The onResume method can be used to dynamically update the layout based on user interactions or other events.

Q - Use of onSavedInstanceState.

Ans - The onSaveInstanceState() method is called before the onStop() method, and after the onResume() method. You can use bundles inside these methods to protect your data even if the activity is destroyed and recreated. For example, onSaveInstanceState(Bundle) retains the data you place in the bundle through configuration changes and process death and recreation. This data is available in your fragment's onCreate(Bundle), onCreateView(LayoutInflater, ViewGroup, Bundle), and onViewCreated(View, Bundle) methods.

The onRestoreInstanceState() method is called when the activity is reopened after a configuration change or process death. This method allows you to retrieve the value and set it back to the variable from which it was originally collected.

Q - When we use Intent and bundle.?

Ans –

Intent - An intent is an abstract description of an operation to be performed. It is used to start another activity or component.

Bundle – Bundle is a class that allows data to be passed between activities within an app. Bundles can hold any type of value and can be used to pass data using key and value pairs.

- Bundles can not start another activity or component.

- Bundles are used to store data, while Intents are used to transfer value.

Q - What is JVM static.?

Ans - <https://www.geeksforgeeks.org/jvmstatic-jvmoverloads-and-jvmfield-in-kotlin/>

Q - Difference between lateinit & lazy.

Ans – <https://amitshekhar.me/blog/lateinit-vs-lazy-in-kotlin>

**lateinit** - lateinit in Kotlin is useful in a scenario when we do not want to initialize a variable at the time of the declaration and want to initialize it at some later point in time, but we make sure that we initialize it before use.

**lazy** - object will get initialized only when it is accessed for the first time, else it will not get initialized. It will be cashed thereafter. In the subsequent access, it returns the same object.

- lazy in Kotlin is useful in a scenario when we want to create an object inside a class, but that object creation is expensive and that might lead to a delay in the creation of the object that is dependent on that expensive object.

- lateinit may throw an exception if accessed before initialization, whereas lazy guarantees safe initialization and avoids such exceptions.

Q - How we can return two values in a function in kotlin.?

Ans - <https://www.techiedelight.com/return-multiple-values-kotlin/>

We can return two or more values in a function by following ways :

- Data Class

- Pair and Triple

- Array.

Q - Types of service and it's life cycle. Example of bound service.

And - <https://www.geeksforgeeks.org/services-in-android-with-example/>

Q - OOPs concepts.  
Q - Have you used abstract class in your project.? Give Practical example.  
Q - What is challenging during your career.?  
Q – What is Broadcast receiver.?  
Q - What is intent. It's types.  
Q - Activity & Fragment life cycle. Difference between onstart & on resume.  
Q - When onCreateView called..?  
Q - What is mvvm, live data, observer.  
Q – Coroutine Scope & dispatchers in coroutines.  
Q - What is null safety.?  
Q - Do you know dagger & hilt..?  
Q - Third party libraries you have used.

Ans – Retrofit, Volley, Room, Firebase, Material, Glide, Gson.

Q - Diff. Between firestore & real time database.

Ans –

**Cloud Firestore** –

- Data is stored in Collections, Documents and Fields.

- Complex, hierarchical data is easier to organize at scale, using subcollections within documents.

- We can use more complex queries to get the data.

**Realtime Database** –

- Data is stored as JSON objects

- Complex, hierarchical data is harder to organize at scale.

- We can use only simple queries to get the data.

Q - Diff. Between list and arraylist. Both are class or interface..?

Ans – List is Interface. Arraylist is Class.

- We can not make object of List.

Q - What are jetpack components.?  
Q - Diff between Collection & Collections.

Ans –

- Collection is called interface in java whereas Collections is called a utility class in java.

- Collection is used to represent a single unit with a group of individual objects whereas collections is used to operate on collection with several utility methods

Q - What is comparator.?

Ans - <https://www.scaler.com/topics/kotlin/kotlin-comparators/>

- In Kotlin, comparators are used to define the order of elements in a collection or to compare objects. The Comparator interface enables custom rules, and Comparable supports natural ordering within a class.

Q - Diff between room and sqlite.

Ans – Advantages of Room over SQLite.

- Compile-time verification of SQL queries. each @Query and @Entity is checked at the compile time.

- Using Annotations to reduce the boilerplate code.

- Easily integrated with other Architecture components like LiveData, and RxJava.

Q - What is Serializable and parcelable.?

Ans-<https://blog.evanemran.info/understanding-serialization-in-android-serializable-vs-parcelable>

- **Parcelable :**

- It is an android specific interface.

- It is faster than serializable.

- Not easier to implement compared to serializable as it requires plugin (id 'kotlin-parcelize').

- **Serializable :**

- It is a standard Java interface.

- It is slower than parcelable.

- Serializable interface is easier to implement as it does not require any plugin as compared with Parcelable we need plugin.

Q - How can we create Singleton class in kotlin.?

Ans – By writing “object” keyword before the name of class.

- <https://www.geeksforgeeks.org/singleton-class-in-kotlin/>

Q - What is gradle files.?

Ans – Mentioned in REVISION after Oceanmtech.

Q - How to remove duplicate values from arraylist other than distinct() function?

Ans - <https://www.geeksforgeeks.org/how-to-remove-duplicates-from-arraylist-in-java/>

Q - What is scheduled task. What is work manager?

Q – What is Context ? Types of context.

Ans - A Context gives you access to information about the current state of your Application. It grants access to resource files, pictures, themes/styles, and external directory locations to Activities, Fragments, and Services.

There are two type of Context :

- **Application context** -  This context is tied to the lifecycle of an application. The application context can be used where you need a context whose lifecycle is separate from the current context or when you are passing a context beyond the scope of activity.

Example Use: If you have to create a singleton object for your application and that object needs a context, always pass the application context.

If you pass the activity context here, it will lead to the memory leak as it will keep the reference to the activity and activity will not be garbage collected.

- **Activity Context** - This context is tied to the lifecycle of an activity. The activity context should be used when you are passing the context in the scope of an activity or you need the context whose lifecycle is attached to the current context.

Example Use: If you have to create an object whose lifecycle is attached to an activity, you can use the activity context.

**> YoungBrainz – Verbal – 28.3.24.**

- OOPs concepts. Polymorphism & Example.

- Which inheritance is not possible in java? Why ?

- Where you used Inheritance in your projects ?

- Method overloading and Method overriding is possible in Inheritance ?

- What is Intent ? Their types.

- What is Service ? There are restrictions for background service. So how can we run background service ?

- View can access ViewModel in MVVM ?

- Difference between MVC & MVVM.

- What is ViewModel and LiveData ?

- If we enter any number, it should be multiplied by number of times as the number. And get the answer. Write the logic for this.

Ex. – If number is 2, then 2\*2 = ?.

If number is 3, then 3\*3\*3 = ?

If number is 4, then 4\*4\*4\*4 = ?

- What is activity ? When onPause() called ? If we open second activity, then onStop() of first activity will be called or not ?

- When we use “super” and “this” keyword.

- Advantage of Room database over SQLite.

- When we use Work Manager ? Why the periodic task is not much accurate as per time ?

- What are Coroutines ? Can we start many coroutines at same time ?

- What is the benefit of using ViewBinding, other than removing findViewById ?

- What is the use of onActivityResult ? Difference between request code & result code.