```
object AppConstant {
    const val baseUrl="https://jsonplaceholder.typicode.com/"
interface RetrofitApi {
    @GET("posts")
    suspend fun getPost() : List<Post>
}
object RetrofitBuilder {
    private val retrofit:Retrofit by lazy {
        Retrofit.Builder()
             .baseUrl(AppConstant.baseUrl)
            .addConverterFactory(GsonConverterFactory.create())
            .build()
    }
    val retrofitApi:RetrofitApi by lazy {
        retrofit.create(RetrofitApi::class.java)
    }
}
class PostRepository {
    fun getPost(): Flow<List<Post>> = flow {
        val postList = RetrofitBuilder.retrofitApi.getPost()
        emit(postList)
    }.flowOn(Dispatchers.IO)
}
class PostViewModel(private val postRepository: PostRepository) : ViewModel() {
   val postData: MutableLiveData<List<Post>> = MutableLiveData()
    // Way: 1
    fun getPost() {
        viewModelScope.launch {
            postRepository.getPost()
                 .catch { e ->
                     Log.d("main", "getPost: ${e.message}")
                 }
                 .collect { postData1 ->
                     postData.value = postData1
                 }
        }
    }
```

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```
// Way: 2
    val postData1: LiveData<List<Post>> = liveData {
        postRepository.getPost()
             .catch { }
             .collect { postData ->
                 emit(postData)
            }
    }
    // Wav: 2
    val postData2: LiveData<List<Post>> = postRepository.getPost()
        .catch { }
        .asLiveData()
}
class PostViewModelFactory(private val postRepository: PostRepository)
   : ViewModelProvider.Factory {
   override fun <T : ViewModel?> create(modelClass: Class<T>): T {
       return PostViewModel(postRepository) as T
    }
class MainActivity : AppCompatActivity() {
    private val TAG = "main"
    private lateinit var recyclerView: RecyclerView
    private lateinit var postAdapter: PostAdapter
    private lateinit var postViewModel: PostViewModel
   override fun onCreate(savedInstanceState: Bundle?) {
       super.onCreate(savedInstanceState)
       setContentView(R.layout.activity main)
       initUi()
       val postViewModelFactory = PostViewModelFactory(PostRepository())
       postViewModel = ViewModelProvider(this, postViewModelFactory)
                       [PostViewModel::class.java]
       postViewModel.getPost()
        postViewModel.postData.observe(this, Observer {
            Log.d(TAG, "onCreate: ${it[0].body}")
            postAdapter.setPostData(it as ArrayList<Post>)
            progressBar.visibility = View.GONE
            recyclerView.visibility = View.VISIBLE
        })
    }
```

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```
private fun initUi() {
    recyclerView = findViewById(R.id.recyclerView)
    postAdapter = PostAdapter(this, ArrayList())
    recyclerView.apply {
        setHasFixedSize(true)
        layoutManager = LinearLayoutManager(this@MainActivity)
        adapter = postAdapter
    }
}
```

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