Errors due to SO posts containing inaccurate information

API	BigDecimal
Type	Functionality
Knowledge	BigDecimal uses decimal fractions internally to represent any decimal number exactly, allowing for accurate calculations and manipulations.
Reason	BigDecimal does not use decimal fractions. It uses a big integer and a scale (number of digits after the decimal point).
Source	Post 68045240 suggests: “That uses decimal fractions internally to represent any decimal number exactly, to any precision you need, and you can easily do calculations and other manipulations.” This is an inaccurate statement. The LLM picked this up and generated this error in the document.

API	BigDecimal
Type	Functionality
Knowledge	BigDecimal is a decimal type that offers perfect precision.
Reason	Perfect precision sounds like it can always give a correct answer, but that’s not true. For example, 1 divided by 3 gives a repeating decimal (0.333...), and you must set how many digits you want.
Source	Post 60081802 suggests: “If you need perfect precision, then use a type capable of doing that.” This is an inaccurate statement. The LLM picked this up and generated this error in the document.

API	UUID
Type	Pattern
Knowledge	In distributed systems, UUIDs enable the generation of unique identifiers across multiple nodes without requiring coordination between them.
Reason	It is not true because UUID version 1 is generated using the MAC address and timestamp. Therefore, unlike later versions of UUID, generating UUID version 1 requires some level of system coordination.
Source	Post 73144845 suggests: “The point of UUIDs is that it doesn't matter who generates them…” This implies UUID does not require any system coordination, which is not true for UUID version 1.

Errors due to GPT-4o misinterpreting relevant SO posts

API	TensorSpec
Type	Concept
Knowledge	A `tf.TensorSpec` with `shape=[2]` and `dtype=tf.int64` describes a tensor with two values of data type `tf.int64`.
Reason	The shape=[2] means the tensor has 1 dimension and 2 values in that dimension. The language may confuse the developers who try to initialize a multi-dimensional tensor.
Source	Post 73046667 suggests: “For better understanding, run: [CODE_EXAMPLE]. This tensor will, therefore, have two values with the data type tf.int64.” The code example provided in the post is correct. However, the summary made by GPT-4o with the code example removed may confuse some readers.

API	IntArray
Type	Alternative
Knowledge	Alternatives to IntArray include `arrayOf` and `intArrayOf`.
Reason	intArrayOf is an initialization method, not an alternative to this class.
Source	Post 62090434 suggests: “Kotlin is different language and has different array initialization for example you could use arrayOf and also primitive method like intArrayOf for integers.” The post explicitly mentions “initialization”. However, GPT-4o considers the two initialization methods as alternatives to IntArray, which is confusing.

API	LinkedList
Type	Concept
Knowledge	Nodes `first` and `last` being declared as `static` in a `LinkedList` class means that all `LinkedList` instances share the same first and last nodes.
Reason	First and last are non-static, and every LinkedList has its own first and last nodes.
Source	Post 74452373 suggests: “Inside your LinkedList class you declare your Nodes "first" and "last" as static. This means that both LinkedLists share the same first and last. You wont be able to have a separate linked list if they remain static.” The post author was mentioning this as a bug in the question owner’s code. However, GPT-4o picked this up as a knowledge snippet.

API	MediaPlayer
Type	Concept
Knowledge	MediaPlayer accepts input as long as it is still encoded as an audio file.
Reason	MediaPlayer only works with formats that Android supports, such as MP3 or MP4. Not all audio files work.
Source	Post 70556830 suggests: “The MediaPlayer takes the input(the file) as long as it is still encoded as an audio file.” However, this post was meant to answer a question about MP3. When GPT-4o summarizes this knowledge, it fails to explicitly say so.

API	MediaPlayer
Type	Functionality
Knowledge	MediaPlayer is used to play audio files.
Reason	The phrasing is too definitive. MediaPlayer can also be used to play videos. This knowledge snippet will mislead the readers.
Source	Many retrieved posts mention MediaPlayer can be used to play audio. However, there is a subtle difference between “can play audio” and “is used to play audio”. The latter, especially when seen in an API document, makes readers believe MediaPlayer is specifically designed for audio playing.

API	ByteArray
Type	Alternative
Knowledge	Alternatives to ByteArray include using RandomAccessFile with the readFully function, which reads exactly the requested amount of bytes.
Reason	This is an alternative reading method, not an alternative to ByteArray itself.
Source	Post 55416615 suggests: “For the RandomAccessFile, it is probably better to use at the readFully function, which reads exactly the requested amount of bytes.” This post mentions RandomAccessFile but does not mention it as an alternative to ByteArray. This is a misinterpretation of GPT-4o.

API	Model
Type	Concept
Knowledge	Recompiling a model after modifying its structure may require rebuilding it to reset weights and layers.

Reason	You can't change a model's structure after building. You need to make a new model.
Source	Post 63608445 suggests: "If your validation data is a random sample of your training data, then your best bet is probably modifying your architecture." This post does not mention model recompiling at all. Therefore, this is a misinterpretation of GPT-4o.

Errors due to GPT-4o hallucinating out of thin air

API	charArrayOf
Type	Concept
Knowledge	In most APIs, the concept section typically covers the underlying idea or philosophy behind the API's design or use.
Reason	This is general API knowledge that should not be in the document for charArrayOf.
Source	This is general knowledge generated by GPT-4o since there is no API knowledge in the retrieved SO post.

API	charArrayOf
Type	Concept
Knowledge	Many modern APIs are designed with modularity, ease of integration, and interoperability as key conceptual goals.
Reason	This is general API knowledge that should not be in the document for charArrayOf.
Source	This is general knowledge generated by GPT-4o since there is no API knowledge in the retrieved SO post.

API	charArrayOf
Type	Performance
Knowledge	Performance considerations often include memory usage, CPU/GPU utilization, and latency.
Reason	This is general API knowledge that should not be in the document for charArrayOf.
Source	This is general knowledge generated by GPT-4o since there is no API knowledge in the retrieved SO post.

API	SparseTensorSpec
Type	Functionality
Knowledge	SparseTensorSpec is often used when dealing with large datasets where most of the data is zero, improving memory efficiency by not storing zero values.
Reason	It is SparseTensor that stores data, not SparseTensorSpec.
Source	This knowledge cannot be found in SO posts retrieved by the DPR model. Therefore, it is a hallucinated knowledge.

API	SparseTensorSpec
Type	Functionality
Knowledge	SparseTensorSpec is used to specify a sparse tensor, capturing the type of its components along with its shape and dimension.
Reason	Shape already includes dimension.
Source	This knowledge cannot be found in SO posts retrieved by the DPR model. Therefore, it is a hallucinated knowledge.

API	AccessibilityRequestPreparer
Type	Concept
Knowledge	The term "accessibility request" refers to requests made to accommodate individuals with disabilities.
Reason	The definition implies that an accessibility request is a user’s need or accommodation request. But in this context, it refers to a query sent by Android’s accessibility framework to retrieve structured UI data from views.
Source	No posts mentioned this. This is hallucinated content.

API	LinkedList
Type	Functionality
Knowledge	The `delete()` method removes the last element from the linked list.
Reason	There is no delete() method in LinkedList.
Source	No retrieved post mentioned the delete() method. This is hallucinated content.

API	ByteArray
Type	Concept
Knowledge	The += operator can be used to concatenate or add contents to a ByteArray.
Reason	+= cannot be used to concatenate or add contents to a ByteArray in Kotlin.
Source	This knowledge is not supported by any retrieved post and therefore is hallucinated.

API	charArrayOf
Type	Concept
Knowledge	In documentation, a strong concept section often relates abstract ideas to concrete examples for user comprehension.
Reason	This is general API knowledge that should not be in the document for charArrayOf.
Source	This is general knowledge generated by GPT-4o since there is no API knowledge in the retrieved SO post.

API	charArrayOf
Type	Performance
Knowledge	Benchmarking and profiling tools are essential to evaluate and optimize API performance.
Reason	This is general API knowledge that should not be in the document for charArrayOf.
Source	This is general knowledge generated by GPT-4o since there is no API knowledge in the retrieved SO post.